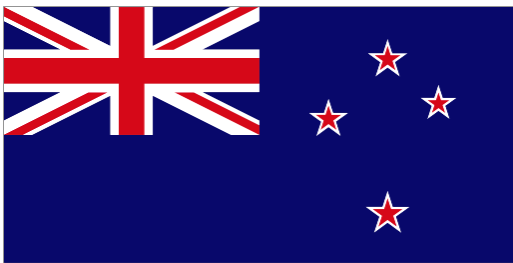
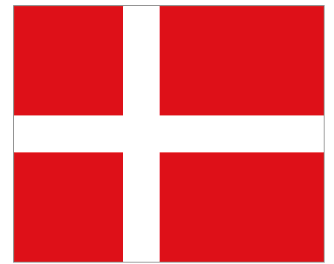
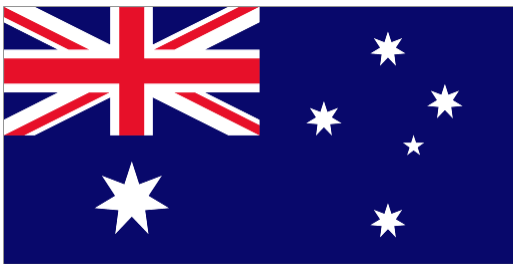




International Learning on Increasing the Value and Effectiveness of Primary Care

I LIVE PC





International Learning on Increasing the Value and Effectiveness of Primary Care Conference (I LIVE PC)

**April 4-5, 2011 Washington, DC (Rockville, MD)
Agency for Healthcare Research and Quality
Conference Center
540 Gaither Road, Rockville, MD 20850**

AGENDA

Welcome	8:30 AM
Carolyn Clancy, Director Agency for Healthcare Research and Quality	
Participant introductions	
Meeting purpose and logistics	
Commonwealth Overview of Systems – Robin Osborn	9:30 AM
Reaction from Delegates	10:00 AM
BREAK	10:30 AM
Panel 1 – Primary Care Models	10:45 AM
Panelists: Harry Pert – New Zealand	
Brian Hutchison – Canada	
John Marley – Australia	
Moderator: David Meyers - USA	
Panel 2 – Infrastructure (clinical, system, community)	11:30 AM
Panelists: David Colin-Thomé – UK	
Emil Djakic – Australia	
John Sahl Andersen – Denmark	
Moderator: Kevin Grumbach - USA	
Lunch	12:15 PM

Panel 3 – Creating and Sustaining Change/Transformation Panelists: Chris van Weel – The Netherlands Harry Pert – New Zealand James Dunbar – Australia Moderator: Kjeld Møller Pedersen	12:45 PM
Panel 4 – Quality and Safety Panelists: Jens Søndergaard – Denmark Arno Timmermans – The Netherlands Bruce Guthrie – UK Moderator: Rob Wedel - Canada	1:30 PM
BREAK	2:15 PM
Panel 5 – Payment/Incentives Panelists: Martin Roland – UK Marsha Barnes – Canada Henk Schers – The Netherlands Moderator: Felicity Goodyear-Smith – New Zealand	2:30 PM
US Check In/Reaction Panel Panelists: Kavita Patel Thomas Graf Paul Grundy Moderator: Kevin Grumbach	3:15 PM
International Panel – The Transformation Package Panelists: Brian Hutchison Nick Glasgow Martin Roland	3:45 PM
Wrap Up	4:45 PM
Adjourn (late adjournment – 5:30 PM)	5:00 PM
Shuttle Service to Legacy Hotel	5:00 PM
Conference Dinner – Legacy Hotel	7:00 PM

Day 2 – Agenda

Cosmos Club
2121 Massachusetts Avenue, NW
Washington, DC 20008

Transportation to Cosmos Club from Legacy Hotel (Luggage can be stored on the bus or at the Cosmos Club)	7:45 AM
Reconvene at Cosmos Club <i>Check-in and layout plan for morning</i>	8:30 AM
Macro Level / National Policy Building a Transformation Package <i>Policy Roadmap for AHRQ, HRSA, CMS, States, Congress, other countries—take items from other countries that might be transferable and walk through how it might be implemented here</i>	9:00 AM
Break	10:30 AM
Micro Level – Building a Culture of Transformation non-governmental actions <i>Idea/Policy Roadmap for clinics, health systems, networks—takes items from other countries that might be transferable and walk through how it might be implemented here</i>	10:45 AM
Reactions, Questions, Corrections	11:15 AM
Adjourn AHRQ meeting	Noon
Writing Groups Convene	1:00 PM
Review of Paper Submission Plans	4:00 PM
Adjourn	4:30 PM
Dinner on your own	

International Learning on Increasing the Value and Effectiveness of Primary Care

April 4-5, 2011 Washington, DC (Rockville, MD)

Purposes:

- 1) To glean lessons for the United States from other developed countries that may assist in moving the U.S. to a patient-centered, high value health care system with primary care as its foundation.
- 2) Defining a package of transformational options and a policy roadmap as a guide for public and private policy-makers

Products:

1. Special issue of Journal of American Board of Family Medicine – structured, thematic working papers
2. Policy Roadmap for AHRQ, HRSA, CMS, States, Congress, other countries—take items from other countries that might be transferable and walk through how it might be implemented here.
3. Commonwealth International Issue Brief (cross-cutting, 2500 words)

Method: Two day conference that primary care transformation experts/implementers, primary care academics, and policy-makers from six countries (and the United States) for a series of focused discussions with content experts and US reactors. It will be preceded by conference paper outlines/drafts written from each country's perspective on the key questions. The Commonwealth Fund will also provide a synopsis of health systems in each country with reaction from country representatives to set the context for transferable learning to the US.

Countries:

Canada, Netherlands, Australia, England, New Zealand, Denmark, United States

Steering Committee:

Robert Phillips	United States
Claire Jackson	Australia
Martin Roland	England
Paul Grundy	United States
Robin Osborn	United States
David Meyers	United States
Felicity Goodyear-Smith	New Zealand
Kevin Grumbach	United States
Brian Hutchison	Canada
Chris Van Weel	The Netherlands
Kjeld Møller Pedersen	Denmark

Special Issue (JABFM)

2000 word article from each country with only a paragraph about overall health system design

Summary reaction piece related to learning from each country (750 words)

Overview of health system design for each country (Cathy Schoen, Robin Osborne 2500 words)

Synopsis commentary on lessons for ACA implementation and next needed reforms (1500 words)

Funder reactions (500 words)



**DESCRIPTIONS OF HEALTH CARE SYSTEMS:
AUSTRALIA, CANADA, DENMARK, ENGLAND, THE NETHERLANDS,
NEW ZEALAND, AND THE UNITED STATES**

Co-edited by

Sarah Thomson, London School of Economics and Political Science

Robin Osborn, The Commonwealth Fund

David Squires, The Commonwealth Fund

Sarah Jane Reed, London School of Economics and Political Science

Prepared for:

THE COMMONWEALTH FUND

NOVEMBER 2010

**MULTINATIONAL COMPARISONS OF HEALTH SYSTEMS DATA
SELECTED INDICATORS FOR SEVEN COUNTRIES**

		Australia	Canada	Denmark	Netherlands	New Zealand	U.K.	U.S.
Population, 2008	Total Population (1,000,000s of People)	21,432	33,095	5,489	16,390	4,272	60,520	304,483
	Percentage of Population Over Age 65	13.2%	13.6%	15.7%	14.9%	12.6%	15.7%	12.7%
Spending, 2008	Percentage of GDP Spent on Health Care	8.5% ^a	10.4%	9.7% ^a	9.9%	9.8%	8.7%	16.0%
	Health Care Spending per Capita ^d	\$3,353 ^a	\$4,079	\$3,540 ^a	\$4,063	\$2,683	\$3,129	\$7,538
	Average Annual Growth Rate of Real Health Care Spending per Capita, 1997-2007	4.9% ^c	4.4%	3.8% ^c	4.5%	5.6%	5.3%	4.5%
	Out-of-Pocket Health Care Spending per Capita ^d	\$605 ^a	\$600	\$489 ^a	\$233	\$372	\$347	\$912
	Hospital Spending per Capita ^d	\$1,263 ^a	\$1,116	\$1,567 ^a	\$1,378	\$994	n/a	\$2,359
	Spending on Pharmaceuticals per Capita ^d	\$480 ^a	\$701	\$303 ^a	n/a	\$254	\$368	\$897
	Spending on Services of Nursing and Residential Care Facilities per Capita ^d	n/a	\$408	\$421 ^a	\$447	\$253	n/a	\$455
Physicians, 2008	Number of Practicing Physicians per 1,000 Population	3.0 ^a	\$2	3.4 ^a	n/a	2.5	2.6	2.4
	Average Annual Number of Physician Visits per Capita	6.4	5.7 ^a	8.9	5.9	4.3 ^a	5.9	4.0 ^a
Hospital Spending, Utilization, and Capacity, 2008	Number of Acute Care Hospital Beds per 1,000 Population	3.5 ^b	2.7 ^a	3	2.9	\$2	2.7	2.7 ^a
	Hospital Spending per Discharge ^d	\$7,729 ^a	\$12,669 ^a	\$9,230 ^a	\$12,200	\$7,104	n/a	\$17,207 ^b
	Hospital Discharge per 1,000 Population	163 ^a	84 ^a	159	113	140	136	126 ^b
	Average Length of Stay for Acute Care	5.9 ^b	7.5 ^a	n/a	5.9	n/a	7.1	5.5
Prevention, 2008	Percentage of Children with Measles Immunization	94.2	92.7 ^b	89.0 ^a	96.0	86.0	85.9	92.1
	Percentage of Population over Age 65 with Influenza Immunization	77.5% ^b	66.6%	62.5%	77.0% ^a	63.7%	75.1%	66.9%
Medical Technology, 2008	Magnetic Resonance Imaging (MRI) Machines per Million Population	5.6	6.7 ^a	n/a	10.4	9.6	5.6	25.9 ^a
	MRI Exams per 100,000 Population	21.4	31.2 ^b	37.8	38.8	n/a	n/a	91.2 ^a
IT, 2009	Physicians' Use of EMRs (% of Primary Care Physicians) ^e	95%	37%	n/a	99%	97%	96%	46%
Avoidable Deaths, 2002-03	Mortality Amenable to Health Care ^f (Deaths per 100,000 Population)	71	77	105	82	96	103	110
Health Risk Factors, 2008	Percentage of Adults Who Report Being Daily Smokers	16.6% ^a	17.5%	23.0%	28.0%	18.1% ^a	22.0%	16.5%
	Obesity (BMI>30) Prevalence	24.8% ^a	24.2%	n/a	11.1% ^g	26.5% ^a	24.5%	33.8%

Source: OECD Health Data 2010 (June) unless otherwise noted.

^a 2007

^b 2006

^c 1997-2007

^d Adjusted for differences in the cost of living

^e Source: 2009 Commonwealth Fund International Health Policy Survey of Primary Care Physicians

^f Source: E. Nolte and C. M. McKee, Measuring the Health of Nations: Updating an Earlier Analysis, Health Affairs, January/February 2008, 27(1):58-71

^g Self-reported as opposed to measured data

The Australian Health Care System, 2010

Contributing Authors

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Judith Healy, Australian National University

Who is covered?

Australia's national public health insurance scheme, Medicare, provides universal health coverage for citizens, permanent residents and visitors from countries that have reciprocal arrangements with Australia.

What is covered?

Services: Public hospital care is provided free to patients. Patients may choose, however, to pay for private care in public or private hospitals. Medicare provides free or subsidized access to most medical and some optometry services and prescription pharmaceuticals. Some allied health services are covered if referred by a medical practitioner. The Australian government, together with state governments in most cases, also funds a wide range of other health services, including population health, mental health, limited dental health, rural and Indigenous health programs, and health services for war veterans. Private insurance is optional (but encouraged with taxes and subsidies). Private treatment complements the public system and offers choice of doctors for hospital admissions; choice of hospitals (including private hospitals); choice of services such as physiotherapy, dental, optometry, podiatry, and complementary medicine services; and timing of procedures.

Preventive services, such as free vaccines and cancer screenings are provided through public programs. General practitioners also provide preventive services, such as immunizations or health checks, that are subsidized partially or fully by Medicare or through national programs.

Mental health care is free when provided as part of public hospital inpatient care, or partially or fully subsidized by Medicare when provided through community-based psychiatric specialists. Non-governmental organizations also offer information, treatment and advocacy services.

Long-term care is means-tested and publicly subsidized, with care provided either in the community (subsidized by an intergovernmental program) or in residential care homes.

Who defines what is publicly covered: Inpatient care in public hospitals is free under the *National Health Act 1953*. Subsidies for outpatient care and outpatient physician services are defined by the Australian government in the Medical Benefits Schedule, and subsidies for medication are established through the Pharmaceuticals Benefits Schedule. Eligibility for residential aged care is defined by the Australian government, while eligibility for other services, such as mental health services or alcohol and drug services are mostly defined by state governments.

Cost-sharing: Medicare usually reimburses 85-100 percent of the schedule fee for outpatient services and 75 percent of the schedule fee for in-hospital services. Doctors' fees are not regulated. They are free to charge above the schedule fee, or they can treat patients for the cost of the subsidy and bill the federal government directly with no patient charge (referred to as bulk-billing). Due to falling rates of bulk-billing for general practice, an incentive scheme was introduced in 2004, offering additional payment for bulk-billing concession card holders (low-income, elderly), children under 16 years of age, and residents of rural and remote areas; and in 2005 the Medicare payment was increased to 100 percent of the schedule fee. In the March quarter of 2010, 74.5 percent of all Medicare services were bulk-billed, including nearly 80 percent of GP visits. Prescription pharmaceuticals covered by the Pharmaceutical Benefits Scheme (PBS) have a standard co-payment: AUS \$33.30 (US\$33.37) in general, with a reduced rate of \$5.40 (US\$5.41) for concession card holders.

Safety nets: Under the Original Medicare Safety Net, once an annual threshold in “gap expenses” (the difference between the Medicare benefit and the schedule fee) for out-of-hospital Medicare services has been reached, the Medicare payment is increased to 100 percent (up from 85 percent) of the Medicare schedule fee for the remainder of the calendar year. In 2010, the threshold was AUS \$388.80 (US\$390).

The Extended Medicare Safety Net, introduced in 2004, provides an additional payment for out-of-hospital Medicare services once an annual threshold in out-of-pocket costs is reached (out-of-pocket costs are higher than gap expenses where the provider charges above the schedule fee). Once the out-of-pocket threshold is reached, the patient will receive 80 percent of their out-of-pocket costs in addition to the standard Medicare payment for the remainder of the calendar year. (In 2010, the thresholds are AUS \$562.90 [US\$564] for individuals with concession cards and low income families, and AUS \$1,126 [US\$1,128] for general patients).

Families are able to register for the Medicare Safety Nets to have their gap expenses and out-of-pocket costs combined to reach the applicable threshold amount sooner. People who exceed an annual safety net threshold for pharmaceutical costs (PBS-listed medicines) are eligible for additional subsidies (indexed annually to consumer price index increases). Once expenditure by non-concession card holders exceeds AUS \$1,281.30 (US\$1,284) in a calendar year, the patient copayment per item decreases to the concessional rate of AUS \$5.40. For concession card holders, the AUS \$5.40 copayment is not required once their expenditure on PBS items exceeds AUS \$324 (US\$325). Patients may pay more than the standard copayment where a PBS item is priced above the schedule fee.

In 2008, 19 percent of PBS prescriptions did not incur any co-payment.

How is the health system financed?

The health system is mainly financed through general taxation revenue, including a small statutory insurance levy, and partially through private payments. The core feature is public, taxation-funded health insurance under Medicare, which provides universal access to subsidized medical services, pharmaceuticals and free hospital treatment as a public patient. Medicare is complemented by a private health system in which private health insurance assists with access to hospital treatment as a private patient, choice of doctor, and access to dental and allied health services.

Other federal, state and territory government health expenditure is funded from general tax revenue, including the Goods and Services Tax (GST), with some revenue being raised through patient fees and other non-government sources. In 2007-08, governments funded 69 percent of total health expenditures, with 43 percent funded by the Australian government and 26 percent funded by state and territory governments. The Department of Veterans' Affairs covers eligible veterans and their dependants by directly purchasing public and private health care services.

National Health Insurance: The Australian government administers compulsory national health insurance (Medicare). Medicare is funded mostly from general revenue and in part by a 1.5 percent levy on taxable income, though some low-income individuals are exempt or pay a reduced levy. In 2010, individuals and families with higher incomes (AUS \$77,000 [US\$77,151] and AUS \$154,000 [US\$154,302] per annum, respectively), who do not have an appropriate level of private health insurance coverage have to pay a Medicare levy surcharge, which is an additional 1 percent of taxable income. In 2007-08, the revenue raised from the Medicare levy (including the surcharge) funded 18 percent of total federal government health expenditure.

Private Insurance: Private insurance contributes 7.6 percent of total health expenditure. Since 1999, 30 percent of private health insurance premiums are paid by the Australian Government through a rebate. The rebate increases to 35 percent for people aged 65 to 69 years, and to 40 percent for those aged 70 and older. In early 2010, 44.5 percent of the population had private hospital insurance, and 51.4 percent had General Treatment coverage (which includes ancillary services). Lifetime Health Coverage encourages people to take out private hospital coverage early in life and maintain their coverage by offering people who join a health fund before age 31 a relatively lower premium throughout their lives, regardless of their health status. People over the age of 30 face a 2 percent increase in premiums over the base rate for every year they delay joining, although fund members who have retained their private health insurance for more than 10 years are no longer subject to this penalty.

Private health insurance is community-rated, and provided by both for-profit and non-profit insurers. The Private Health Insurance Administration Council (PHIAC) is an independent statutory authority that regulates the private health insurance industry. Private health insurance policy is set by the Australian Government Department of Health and Ageing and the Minister must approve any increases in fees.

Out-of-pocket expenditure: Out-of-pocket spending accounted for 16.8 percent of total health expenditure in 2007-08. Most of this expenditure is for medications not covered by the PBS, dental services, aids and appliances and co-payments on medical fees.

How is the delivery system organized?

The Australian government plays a strong role in national policy-making, although it generally funds rather than provides health services directly. The federal government regulates private health insurance, pharmaceuticals, and medical services, while also overseeing the primary funding and regulatory responsibility for residential elderly care facilities that are government subsidized. The state and territories are essentially autonomous in administering health services subject to inter-governmental and funding agreements. The states are charged with operating public hospitals and regulating all hospitals and community-based health services. Local government is involved in environmental health and some public health programs but not clinical services. The private sector includes the majority of doctors (e.g. general practitioners and many specialists), private hospitals, a large diagnostic services industry, and several private health insurance funds.

Physicians: Most medical and allied health practitioners are in private practice and charge a fee for service. GPs play a gatekeeping role as Medicare will only reimburse specialists the schedule fee payment for referred consultations. Physicians in public hospitals are either salaried (though allowed to have separate private practices and additional fee-for-service income) or paid on a per-session basis for treating public patients. Generally, physicians working in private hospitals are in private practice and do not concurrently hold salaried positions in public hospitals.

Primary Care: General practitioners are nearly all self-employed and manage their practices as small businesses. Firms are generally small in size – more than 60 percent are in practices of fewer than five full-time equivalent GPs. Some ‘corporatization’ is underway, however, with companies employing GPs under contract. GPs and specialists charge a fee-for-service and patients are reimbursed by Medicare, unless the medical practitioner ‘bulk bills’ Medicare and accepts the schedule fee. Medicare defines the reimbursement level for listed items (the Medicare schedule fee) but medical practitioners remain free to set their fees. GPs may also be paid a small amount (in terms of their overall income) to deliver public health services.

Individuals are not required to register with a primary care physician, and thus able to consult any GP without restriction with no policy requirement to remain with one GP. Most people attend one general

practice, however, where their medical record is maintained. Primary care in Australia promotes a patient-centered, coordinated service that is easily accessible and caters to the needs of the individual, family, and carers (Department of Health, 2009).

Multi-disciplinary teams are the norm in community health centers but not in private general practices. Some large practices with several partners employ practice managers and some employ nurses. The Australian government subsidizes the employment of practice nurses through the Practice Incentives Program. Since 2004, Medicare items allow GPs to claim reimbursement for specified tasks undertaken by a practice nurse under the direction of the GP, with practice nurses involved in 6.4 percent of GP-patient encounters. Nearly 60 percent of Australia's general practices employed practice nurses in 2006, and are being allocated an increasing number of items in the Medicare Benefits Schedule. The Australian Government promotes group practices and multi-disciplinary teams in its GP Super Clinics Program, which funds 36 clinics with an additional 23 announced in the 2010-11 Federal Budget. The program also provides grants to around 425 general practices, primary care and community health services, and Aboriginal Medical Services to build their capacity to deliver GP Super Clinic-style services.

Divisions of General Practice (local groups comprising 100 to 300 GPs) are funded by the Australian government and play a key role in facilitating general practitioner participation in primary care activities, including working cooperatively with other parts of the health care system. Divisions are involved in programs aimed at improving health outcomes for the local community; for example, the General Practice Immunisation Incentive, Workforce Support for Rural General Practitioners and a range of Council of Australian Government (COAG) initiatives that address diabetes, mental health, drug and alcohol use.

Outpatient Specialist Care: Specialists are located in both the private and the public sector and many work in both sectors. Private specialists generally maintain offices in the community and also have 'visiting rights' in public and private hospitals where they run outpatient sessions and treat inpatients. Surgeons, in particular, may maintain operating schedules in public hospitals (and operate on both public and private patients) as well as in private hospitals.

After-hours care: General practice office hours are a decision for individual practice owners and managers. Information on after hours visits provided by medical deputizing services and locums may be sent to a patient's primary general practitioner, and general practice clinics vary considerably in the extent to which they provide after-hours care. Due to difficulties faced by many people in accessing after-hours care and a subsequent increase in individuals seeking hospital emergency room care for non-emergency conditions, the Australian Government decided to offer grants to GPs to provide after-hours services.

According to one study, 43 percent of GPs work in a practice that provides their own or cooperative after-hours care, and 58 percent work in a practice that uses a deputizing service for after-hours patient care (Britt H et al 2009). The RACGP standards for accreditation call for practices to ensure 'reasonable arrangements for medical care for patients outside our normal opening hours'. A 2009 Commonwealth Fund survey of primary care physicians in eleven countries found that only 50 percent of GPs in Australia said their practice had after-hours care arrangements, reflecting a higher proportion than in the United States, but still lower than in several European countries (Schoen et al 2009). After-hours care services are privately owned – except for public hospital emergency departments.

Hospitals: The hospital sector includes a mix of public (run by the state and territory governments) and private facilities. Under Medicare, the public hospital system provides free hospital care for patients electing to be treated as public patients. Public hospitals are jointly funded by the Australian Government and state/territory governments through five-year agreements. Public hospitals also receive some revenue from services to private patients. Many salaried specialist doctors in public hospitals are able to treat

some private patients in hospital, to which they usually contribute a portion of the income earned from the fees. Private hospitals (including free-standing ambulatory day centers) can be either for-profit or non-profit, and their income is chiefly derived from patients with private health insurance. Most emergency surgery is provided in public hospitals, while the majority of elective surgery procedures are provided in private hospitals and day surgeries.

There were 742 public acute care hospitals and 280 private hospitals in 2007–08. Beds in public acute and public psychiatric hospitals accounted for 67 percent of the total bed stock. In addition, there are 272 private free-standing day hospital facilities.

Private insurers list their preferred provider networks for private hospital care, dental services, other allied health services, and for doctors who accept a Medical Gap Scheme schedule of benefits as full payment for in-hospital services.

Long-term care: The majority of care for the elderly with long-term health conditions and disability is provided on an unpaid basis by relatives and friends. The Australian government subsidizes assistance for people determined to have a high level of dependency either through community care services or residential aged care homes. The national planning benchmark for 2011 per 1,000 people aged 70 years and over is 88 residential care places and 25 community-based packages for high dependency people. The Aged Care Assessment Program (ACAP) is a cooperative working arrangement between the federal and state and territory governments to fund and operate Aged Care Assessment Teams across Australia. The core objective of the ACAP is to comprehensively assess the care needs of frail older people and to assist them to gain access to the most appropriate types of care, including approval for government-subsidized residential and community care services.

The Australian government subsidy for aged residential care is means-tested, the amount of subsidy being based on the extent of a person's dependency (low, medium, high) and their total assessable income and assets. All residents pay a basic daily fee and, depending on their level of care and income, an income-tested fee. Residents are also eligible to pay an accommodation payment – either a bond or a charge depending on their assets and whether or not they are in high or low care. The maximum daily Aged Care Funding Instrument rate paid for a resident is currently AUS \$162.89 (US\$163).

As at June 30, 2009, the majority (59 percent) of aged care residential providers were in the not-for-profit sector, such as religious and community organizations, 34 percent were private for-profit establishments, while the remaining 7 percent were state and local government facilities.

The Home and Community Care (HACC) program is a joint federal, state and territory government initiative. The program delivers high-quality, affordable and accessible services in the community that are essential to the well-being of frail older people, younger people with a disability, and their carers. The program aims to support these people to be more independent at home and in the community. The Australian government contributes approximately 60 percent of program funding and maintains a broad strategic policy role, while the remaining funding and administration of the HACC program are managed on a day-to-day basis by the state and territory governments. Assistance available through HACC includes domestic assistance, personal care, transport, home maintenance, nursing and allied health care.

The Australian, state and territory governments are committed to working together to provide quality palliative care. The Australian Government's National Palliative Care Program funds initiatives to ensure quality palliative care and to improve access to services for both people who are dying and their families. These projects include research, improving palliative care education and training, and promoting advance care planning and the documentation of end of life health care wishes.

While the Australian Government does not directly fund hospices or palliative care services, it does provide significant financial assistance to state and territory governments to help them to operate hospice and palliative care services as part of their health and community service provision responsibilities.

Mental health care: The aim of the National Mental Health Strategy has been to ‘deinstitutionalize’ and ‘mainstream’ mental health services by moving treatment beyond psychiatric hospitals and into general hospitals while expanding the provision of community health services.

A variety of public and private health-care providers operate mental health services. Non-specialized services are offered through GPs, whereas specialized services are provided through psychiatrists, psychologists, community-based mental health services, psychiatric hospitals, psychiatric units within general acute hospitals and residential care facilities.

Consultations by patients with GPs and specialists for mental health-related problems can be claimed from Medicare. Inpatient admissions to public hospitals for mental health problems are free to the patient and funded through intergovernmental hospital funding agreements. Private health insurance funds subsidize insured admissions of insured patients to private hospitals.

Pharmaceuticals: Prescription pharmaceuticals are covered by the Australian Government Pharmaceutical Benefits Scheme (PBS), which offers payment for a comprehensive and evolving list of drugs at a negotiated fixed price. Patients have a co-payment, set by the federal government. Most prescribed pharmaceuticals are dispensed by private sector pharmacies.

What is being done to ensure quality of care?

The Australian Commission on Safety and Quality in Health Care, now a statutory body, publicly reports on the state of safety and quality, including performance against national standards, disseminates knowledge, and identifies policy directions. National indicators covering the quality and safety of clinical care have been developed by the Commission, and another set of performance indicators was developed for the 2009 National Healthcare Agreement between the federal and all state and territory governments. The Commission is currently undertaking the first stages of a new approach to accreditation, including a set of Australian Health Standards, a national quality improvement framework, and national coordination of quality improvement efforts. A single national registration and accreditation system has been set up under legislation for nine health professions: medical practitioners; nurses and midwives; pharmacists; physiotherapists; psychologists; osteopaths; chiropractors; optometrists; and dentists. Provision of government-funded residential aged care is highly regulated with both provider organizations and their staff being subject to stringent approval processes.

The Australian government also encourages continuing improvements in general practice through financial incentives to support quality care, and improve access and health outcomes for patients. Incentive payments are available for activities such as using electronic health systems, delivering after hours care to patients, teaching medical students, and undertaking best practice management of patients with chronic disease. Attention and resources are currently focused on addressing the gap in health outcomes for the indigenous population. To be eligible to receive incentive payments, practices must be accredited, or registered for accreditation against the Royal Australian College of General Practitioners *Standards for general practice*, which is considered an important driver for safety and quality in general practice.

What is being done to improve efficiency?

The Medical Services Advisory Committee assesses new medical therapies for inclusion in the Medical Benefits Schedule, based on safety, cost-effectiveness and comparative effectiveness. The Pharmaceutical Benefits Advisory Committee assesses new prescription drugs on the same basis before they can be included in the PBS. The Australian Government Department of Health and Ageing then uses these assessments to negotiate prices with manufacturers. The government also offers education and incentives to general practices to encourage quality use of medicines.

The Australian government has prioritized improving efficiency in aged care. The Ministerial Conference on Ageing was established in 2008, as a collaboration between the different levels of government and is tasked with initiating, developing, and monitoring policy reform towards improving aged care planning.

How is health information technology being used?

Australia has established a national strategy for health care technology in recent years. Agreements have been made between the national government, state governments, and other key agencies on developing, collecting and exchanging data in order to promote the use of health information technology. The Australian Health Ministers' Advisory Committee (an intergovernmental committee of senior health administrators) manages the national strategy on health information. The Australian Government issued the current National E-Health Strategy in December 2008. The National E-Health Transition Authority (NEHTA) is the key agency responsible for developing interoperable systems between health care providers, health care identifiers, secure messaging and authentication, and a clinical terminology and information service. A unique health identifier is in the process of being implemented under the national *Healthcare Identifiers Act 2010*.

Health care provider numbers will be issued from mid-2010 onwards to all health professionals, beginning with the ten health professions with national registration. Individuals with health cards will be issued an identifier and providers can ask for numbers to be issued to other patients as they seek treatment (although a patient identifier number is not compulsory). General practitioners will be crucial in the implementation of patient identifiers, which are intended to improve communications in discharge, tests, referrals and prescriptions. The great majority of general practitioners in Australia already use computers in clinical care, including electronic decision support systems.

How is evidence-based practice encouraged?

The *National Institute of Clinical Studies*, now under the National Health and Medical Research Council, established in 2000 to help close the gap between the best available evidence and current clinical practice, supports the development and maintenance of clinical practice guidelines and evidence-based products and runs guideline dissemination projects and evaluation studies. The NISC produces advisory, not mandatory, guidelines.

Several entities exist to review the effectiveness of drugs, devices and services. The main ones are as follows:

The *Pharmaceutical Benefits Advisory Committee* (PBAC) is an independent statutory body that advises the national Minister for Health. PBAC considers the effectiveness and cost of a drug proposed for PBAC listing (the government subsidy list) compared to other therapies or to placebos. The PBAC requires applicants to prepare detailed submissions providing evidence of effectiveness and cost-effectiveness, and these are then subject to rigorous assessment by HTA organisations contracted to PBAC and provided as confidential reports. PBAC evaluation is mandatory to be listed, though the Ministry has some flexibility when accepting its recommendations. A positive recommendation by PBAC does not guarantee listing, but a recommendation not to list a product requires legislative (not just Ministerial) intervention to be

overturned. When proposing to delete a product from the PBS list, the Minister must seek advice from PBAC and that advice must be considered by both Houses of Parliament, though the Minister is not obliged to accept that advice. The health minister and parliament may reject an affirmative PBAC recommendation to list a new drug or to amend its coverage, but they may not add a new drug to the PBS that has not been endorsed by PBAC.

Medical services are considered by the *Medical Services Advisory Committee* (MSAC), an advisory committee to the Minister for Health, and therefore its recommendations are not compulsory. Both positive and negative recommendations are solely advisory, with all decisions resting with the minister, and in some cases, the Cabinet.

The *Therapeutic Goods Administration* (TGA) within the Australian Government Department of Health and Ageing is responsible for the safety and efficacy of new therapeutic goods but is not required to assess their cost effectiveness.

PBAC, MSAC and TGA decisions affect coverage in terms of the goods and services listed for government subsidy. The National Institute of Clinical Studies has begun to evaluate the take-up of clinical guidelines and their use (or non-use), which will likely have an impact on the delivery of health care and attendant coverage decisions.

How are costs contained?

Public hospitals are owned and operated by state and territory governments, although costs are shared with the Australian government. State and territory governments set annual budgets for public hospitals, with funding on the basis of case-mix (diagnosis related groups) used to drive efficiency in public hospitals. National coverage decisions on medical services and pharmaceuticals are used to control costs and ensure evidence drives an expanded scope of services. In addition, new pharmaceuticals have to meet cost effectiveness criteria and be subject to nationally negotiated pricing before inclusion in the formulary of publicly subsidized medicines.

Additional cost-controlling methods include: controlling the growth in cost of some large volume diagnostic services (pathology and radiology) through industry agreements with the relevant medical specialty; controlling access to specialist services through ‘gatekeepers’ such as general practitioners who perform an important role in promoting continuity; prioritizing access to certain services according to clinical need; and limiting the number of providers that are eligible to access Medicare benefits for some ‘hi-tech’ services. Effective prevention and better management of chronic disease have been proposed as strategies to reduce future health care costs.

What recent system innovations and reforms have been introduced?

The Australian government established a number of reviews of the health system, most importantly the Health and Hospitals Reform Commission and the National Preventive Health Taskforce, both of which have released public reports, and developed a National Primary Health Care Strategy. Common features of the recommendations of these reports are a strengthening of primary care through the development of facilities which provide multidisciplinary care, extended hours, and better integration with aged care and non-acute community services. The Australian Government would take over primary health care funding and policy responsibilities and encourage the development of alternatives to fee-for-service. Both the Commission and the National Preventive Health Taskforce recommended the formation of a National Preventive Health Agency.

In April 2010 the Council of Australian Governments, with the exception of Western Australia, agreed to establish the National Health and Hospitals Network. Under the Network, the federal government

becomes the majority funder of the health and hospitals system, including funding 60 percent of the efficient price of public hospital services, capital, research and training, and, over time, 100 percent of primary care-equivalent outpatient services. The federal government will also assume full policy and funding responsibility for primary health care and aged care, including the Home and Community Care Program (except in Victoria and Western Australia).

The National Health and Hospitals Network also devolves governance of the health and hospitals system to new local institutions – Local Hospital Networks and Medicare Locals. Aged care one-stop shops will be established to work with these institutions to ensure care is integrated at the local level across the acute, primary and aged care sectors.

References

Australian Department of Health and Ageing. Medicare Statistics March 2010.

Australian Institute of Health and Welfare. Towards National Indicators of Safety and Quality in Health Care. 2009. Canberra.

Australian Institute of Health and Welfare. Health Expenditure Australia 2007-08. 2009 Canberra.

National Health and Hospitals Reform Commission. A Healthier Future for All Australians. Final Report. June 2009. Canberra.

Private Health Insurance Administration Council, March Statistics, 2010.

Private Health Insurance Administration Council Annual Report 2008-09

Healy J, Sharman E & Lokuge B, 'Australia: Health System Review' *Health Systems in Transition* 2006; 8(5): 1-158

Australian Institute of Health and Welfare, *Australia's Health 2010*, Canberra, 2010.

Australian Institute of Health and Welfare, *Australia's Welfare 2009*, Canberra, 2010.

Britt H et al *General Practice Activity in Australia 2008–09: BEACH Bettering the Evaluation And Care of Health*, AIHW 2009

Department of Health and Ageing, 'Residential Care' Accessed 28 July 2010
<http://www.health.gov.au/internet/main/publishing.nsf/Content/Residential+Care-2>

Australian Divisions of General Practice. National Practice Nurse Workforce Survey. Canberra: ADGP, 2006.

Schoen C et al (2009) 'A survey of primary care physicians in 11 countries, 2009: perspectives on care, costs, and experiences' *Health Affairs* Web Exclusive Nov 5, w1171-11183

The Canadian Health Care System, 2010

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Who is covered?

Canada's publicly funded insurance coverage, often referred to as Medicare, provides universal coverage for medically necessary physician and hospital services. Coverage for other health services is generally provided through a mix of public programs, supplementary private insurance, and out-of-pocket payments.

What is covered?

Services: In order to qualify for federal financial contributions under the Canada Health Transfer, provincial and territorial health insurance plans must fully cover medically necessary physician and hospital services for all eligible residents. In addition to providing universal coverage for physician and hospital services, provincial and territorial governments provide varying levels of supplementary benefits for children, senior citizens, and social assistance recipients. Supplementary benefits include services such as prescription drug coverage, vision care, dental care, home care, aids for independent living, and ambulance services. The federal government provides certain health care services and benefits for First Nations and Inuit, and funds health care services for members of the Royal Canadian Mounted Police and the Canadian Forces, for inmates in federal penitentiaries, as well as certain services for persons as provided by federal legislation, e.g., veterans and refugees.

Preventive services: Through the Public Health Agency of Canada, the federal government directly provides and funds a wide range of preventive services such as health promotion and disease and injury prevention programs. Provincial and territorial public health activities include health promotion (e.g., education and counseling initiatives) and prevention (e.g., immunizations). They also run provincial screening programs with variations in approach, delivery, and comprehensiveness.

Mental health care: The legislation underpinning Canada's health system, the Canada Health Act (CHA), does not mandate public coverage of nonphysician mental health services (such as services of psychologists or social workers) outside of hospitals, but all the provinces and territories cover them to varying degrees.

Long-term care: Long-term care services are provided in facilities and in the community and are considered "extended health services" by the CHA and therefore are not universally covered. Provinces and territories may choose to fund services, and all do, but coverage varies substantially across and within provinces/territories.

The majority of public coverage decisions are made at the provincial/territorial level. The CHA outlines the conditions that the provincial/territorial governments must meet in order to qualify for federal fiscal transfers for health. All *medically necessary* hospital and physician services must be covered on a prepaid basis and on uniform terms and conditions.

Cost-sharing: There is no private payment for publicly insured physician and hospital services. However, there are out-of-pocket payments for supplementary health services not funded by public programs or private insurance. Out-of-pocket payments by private households represent about 15 percent of total national health expenditures. There is a federal income tax credit for eligible medical expenses.

How is the health system financed?

Publicly funded health care: Public health insurance plans administered by the provinces/territories are funded by general taxation. Federal transfers to provinces and territories in support of health care are tied to population, and are conditional on provincial and territorial health insurance plans meeting the requirements set out in the *Canada Health Act*. Public funding has accounted for approximately 70 percent of total health expenditures over the past decade.

Privately funded health care: Roughly two-thirds of Canadians have supplementary private insurance coverage, many through employment-based group plans, which cover services such as vision and dental care, prescription drugs outside of hospitals, rehabilitation services, home care, and private rooms in hospitals. Duplicative private insurance for publicly funded physician and hospital services is not available. Private health expenditures (payments through private insurance and out-of-pocket payments) represent approximately 30 percent of total health expenditures. Private health expenditures represent about 95 percent of dental care, 90 percent of vision care, and 55 percent of prescription drug costs. In 2009, out-of-pocket spending constituted over 40 percent of dental expenditures, about 75 percent of vision care costs, 18 percent of total expenditures on prescription drugs, and 100 percent of over-the-counter medications.

About 80 percent of insurers that sell private health care insurance are for-profit health and life insurance companies, and about 20 percent are not-for-profit insurance organizations that specialize in health coverage. Both federal and provincial governments regulate life and health insurance to ensure that contractual commitments to policyholders are met. Insurance companies and their representatives are subject to guidelines on consumer disclosure and insurance practices. Seventy-five life insurance companies and 44 property and casualty insurers provided health insurance in 2008. The plans typically pay for extra charges for semiprivate or private hospital rooms, outpatient prescription drugs, special duty nursing and other paramedical services, ambulance services, psychological services, artificial limbs, prostheses and medical appliances, wheelchair rental, and vision care. The value of employer-sponsored private health insurance is not considered a taxable benefit to employees at the federal level and in all provinces except Québec. Premiums paid by individuals to private health insurance plans are considered as eligible medical expenses for the federal income tax credit.

How is the delivery system organized?

Provinces/territories: Provinces and territories have primary responsibility for the organization and delivery of health services, including the education and payment of health care providers. Many provinces and territories fund regional health authorities that plan and deliver publicly funded health care services on a local basis. Some jurisdictions have consolidated the number of authorities in recent years.

Physicians: Most physicians are in private practices and are remunerated on a fee-for-service (FFS) basis, though an increasing number receive alternative forms of public payment such as capitation, salary, and blended funding. In 2007–2008, about 24 percent of total clinical payments to physicians were made through these types of arrangements, which increased from 21 percent in 2003–2004 (the range is from 13% in Alberta and 24% in Ontario to 47% in Nova Scotia and 94% in the Northwest Territories). According to a physician survey from 2007, about half of family physicians received at least 90 percent of their income from FFS, and about 30 percent received at least 90 percent through blended payment. Provinces are increasingly introducing elements of pay-for-performance into physician reimbursement (see also the section on disease management). For example, physicians in Ontario are paid Cumulative Preventive Care Bonuses for achieving specified thresholds of preventive care for immunizations and screenings.

Physicians do not bill patients for services provided. Instead, physicians are paid by the provincial/territorial health insurance plan based on the fee schedule negotiated between the provincial/territorial government and the medical association. In some provinces, physicians can opt out of the public plan if they wish to charge their own rates for insured health services (but this is rare in Canada). Primary care gatekeeping is not required but there are provider incentives to discourage self-referrals. Hospital-based physicians generally are not hospital employees and are paid fee-for-service, as are outpatient specialists. Physicians in community clinics are salaried.

Registration with a primary care doctor is not required to access health care, although most Canadians' initial contact with the health care system is with a family physician. Some of the new primary care teams that have a capitation portion of their remuneration require patients to register in order for physicians to receive payment.

Provincial governments have implemented a number of primary care reform initiatives, such as Primary Care Networks in Alberta, Physician Integrated Networks (PINs) in Manitoba, Integrated Health Networks in British Columbia, Family Health Teams in Ontario, and Family Health Centers in Prince Edward Island. Many of these approaches offer features similar to a U.S.-style "medical home," such as multidisciplinary teams. In the 2007 National Physician Survey, about 30 percent of family doctors reported that they had a formal arrangement to collaborate with nurses, and 10 percent to 15 percent reported working with other allied professionals.

Uptake of health information technology, particularly of ambulatory electronic medical records (EMRs), varies across Canada. With about one-third of physicians using EMRs, federal funding has been confirmed in 2010 to support provincial and territorial initiatives to accelerate the adoption of these technologies.

After-hours care: After-hours care is provided by walk-in clinics and hospital emergency rooms. (After-hours, walk-in, and urgent care clinics are mostly privately owned.) Most provinces offer a free telephone service ("teletriage") 24 hours a day where registered nurses provide health or self-care advice. Primary care physicians are generally not required to provide after-hours care, although some government-enabled group practice arrangements, such as Ontario's Family Health Networks, are required to provide extended office hours or a telephone advice service after hours for patients registered with the practice.

The Commonwealth Fund International Health Policy Survey (2009) of physicians found that only 43 percent of physician practices had arrangements for patients' after-hours care to see a doctor or a nurse. The Fund's 2007 survey of the general public found 22 percent of Canadians reported having same-day or next-day appointment access to see a physician when they are sick. The same survey found 37 percent of Canadians reported difficulty accessing after-hours care.

Nurses and other health professionals: Most nurses are employed either in hospitals or by community health care organizations, including home care and public health services. Nurses are generally paid salaries negotiated between their unions and their employers. Dentists, optometrists, occupational therapists, physiotherapists, psychologists, pharmacists, and other health professionals are employed by hospitals or are in private practice.

Hospitals: Ownership of acute-care hospitals that provide medically necessary services varies across jurisdictions in Canada. In general, these facilities are almost all not-for-profit and are owned by religious orders, municipalities or municipal corporations, universities, community-based foundations, and governments. They generally operate under annual global budgets negotiated with the provincial/territorial ministry of health or regional health authority. However, several provinces are

beginning to incorporate activity-based funding for hospitals. Some provinces have introduced activity-based funding to pay for additional services that were targeted in their wait times strategies. For example, Ontario was the first province to adopt activity-based funding as part of their wait times strategy and has been successful in selected hospital services, such as cataract surgery, joint replacement surgery, and cardiac bypass surgery.

Long-term care: The legislation underpinning Canada's health care system, the Canada Health Act, requires provinces and territories to provide universal access to medically necessary hospital and physician services but not for care that is provided outside hospitals or by providers other than physicians. Long-term care services provided in facilities and in the community are considered "extended health services" by the CHA. The same is true for hospice and end-of-life care. Provinces and territories may choose to fund these services, and all do, but coverage varies substantially across and within provinces/territories.

The majority of public finances (general taxes) are directed toward residential facilities. While some specialized long-term care programs and services (e.g., cancer care) may be under direct provincial control, the funding and allocation of much community-based care is devolved to the regional and municipal agencies. Estimates suggest that over 70 percent of nursing home and residential facilities are financed through public provincial sources (both health and social services departments).

About half of the provinces and territories provide some home care services without cost to clients (e.g., there is no income means-testing). However, in contrast to medically necessary hospital and doctor care, there is no entitlement to these services and access may depend both on assessed health and service needs and on availability within capped home care budgets.

Finally, people who can afford it are also free to purchase any long-term care services they wish from private providers since these services are not subject to the provisions of the CHA. For example, instead of entering a publicly funded nursing home, individuals and families can purchase accommodation and services and private retirement residences, which, depending on the jurisdiction, may be only partially regulated. Similarly, individuals may purchase any home and community care service if they wish to avoid wait lists for publicly funded services. Private long-term care insurance appears to be growing in Canada, although the market remains small.

A mix of private for-profit, private not-for-profit (charitable), and public facilities provides (residential) long-term care in Canada. Ownership patterns vary widely across the country.

Mental health care: The Canadian system includes universal health care coverage for physician-provided mental health care alongside a fragmented system of provision by allied mental health services. Physician fee-for-service payments in 2002–2003 for psychotherapy or counseling services amounted to roughly 8 percent of total physician FFS payments. Within inpatient care, mental health care is provided in specialty psychiatric hospitals and in general hospitals with adult mental health beds. The majority of social workers are salaried employees of municipal, provincial, or federal government funded organizations (e.g., schools, hospitals, correctional facilities, children's aid societies, addiction treatment facilities); many work for agencies funded by voluntary donations and a growing number are private practitioners. Psychologists may work privately, and are paid through private insurance or direct payments, or in publicly funded organizations under salary. Registered psychiatric nurses in Canada also provide mental health services in hospitals, community based organizations, and nursing homes and are paid a salary.

What are the key nongovernmental entities for system governance?

At a national level, several arm's-length, nonprofit organizations have been established in the past decade to improve overall system governance (some of these are discussed in the quality of care section). The Health Council of Canada was established by the federal and provincial/territorial governments as an intergovernmental, nonprofit organization to monitor and report on the progress of the federal/provincial/territorial governments on health care renewal, the health status of Canadians, and the health outcomes of the system. Its role in overall system governance is limited to its mandate of monitoring progress and identifying best practices.

Several nongovernmental organizations also play important roles in system governance: the professional organizations (e.g., associations representing health professionals such as the Canadian Medical Association and the Canadian Nurses Association and their provincial/territorial affiliates); the provincial colleges of physicians and surgeons, which are responsible for governing the professions through their licensing role and by developing and enforcing standards of practice; and Accreditation Canada (formerly the Canadian Council on Health Services Accreditation), which manages the voluntary accreditation of health care organizations including regional health authorities, hospitals, long-term care facilities, and community organizations.

What is being done to improve quality of care?

Over the past decade, the federal government has increasingly earmarked funds to support innovation and stimulate systemwide improvements in quality. Examples include the Patient Wait Times Guarantee Trust (CAD\$612 million [US\$609 million]), the Canadian Partnership Against Cancer (CAD\$250 million from 2006 to 2011 [US\$249 million]), the Canadian Patient Safety Institute (up to CAD\$8 million per year since 2003 [US\$8 million]), and the establishment of the Mental Health Commission of Canada.

In terms of improvements in access, in 2005, all governments established a set of evidence-based wait time benchmarks in priority clinical areas (e.g., cardiac care, cancer care, joint replacement, and sight restoration). In 2007, all jurisdictions committed to establish a guarantee in at least one clinical area by 2010. All but one province (Alberta) have wait time guarantees and the territories have yet to implement them.

All provinces now report on wait times. Provinces have made considerable progress in their efforts to manage and reduce wait times, with many provinces now meeting wait time benchmarks for at least 75 percent of patients.

The federally funded Canadian Patient Safety Institute promotes best practices and provides leadership across Canada on patient safety and quality improvement initiatives. The Canadian Optimal Medication Prescribing and Utilization Service (COMPUS) supports the safe and appropriate prescribing and use of medicines through information for health care providers and consumers. COMPUS is one of three programs operated by the Canadian Agency for Drugs and Technologies in Health (CADTH) and is funded by Health Canada.

From 2000 to 2006, the Primary Health Care Transition Fund invested CAD\$800 million (US\$796 million) to support provinces and territories with the transitional costs of implementing large-scale primary health care reform initiatives. Most of the funding was allocated to the provinces and territories. The Fund aimed to improve access, health promotion and prevention, integration and coordination, and to encourage the use of multidisciplinary teams. Major achievements in reforming primary care include: widespread introduction of multidisciplinary teams in Ontario, Québec and Alberta; patient enrollment in Ontario and Québec; the spread of alternative payment methods to fee-for-service; and expanded primary care education for physicians and nurses.

The Canadian Institute for Health Information reports data and analysis on the health care system and the health of Canadians. The Health Council of Canada monitors progress of health care renewal initiatives and the health status of Canadians and identifies best practices.

Many quality improvement initiatives take place directly at the provincial and territorial level, with many jurisdictions having established quality councils to drive change, as well as to monitor and publicly report on the progress of renewal. The Ontario Health Quality Council was set up in 2004 in Ontario with a mandate to publicly report to Ontarians on the performance of the health system, including on that of acute and long-term care. In 2010 the Ontario government introduced new legislation (“An Act respecting the care provided by health care organizations,” also known as the “Excellent Care for All Act”) to improve the quality of care (primarily in hospitals) by introducing quality committees, annual quality improvement plans, patient/client/caregiver surveys, and staff surveys, and by linking the compensation of hospital executives to the achievement of quality improvement targets stipulated in the annual plans (pay-for-performance).

Disease management programs: In the context of primary care reform, and increased investment in primary care, there have been some reforms that aim to improve the systematic management of disease. These are organized at the provincial level and many include incentive payments for physicians. British Columbia introduced its Full Service Family Incentive Program to support management of congestive heart failure, diabetes, and hypertension. Through this program, physicians receive annual payments for each patient with one of these conditions whose clinical management is consistent with the recommendations set forth by provincial clinical practice guidelines. Nova Scotia introduced a Family Physician Chronic Disease Management Incentive Program in 2009. In Ontario, the Diabetes Education Program started in 2009 assists individuals recently diagnosed with diabetes to better manage their condition.

Disease registries: Few formal disease registries exist, though many provincial cancer systems maintain some type of patient registry. Provincial cancer registries feed data to the Canadian Cancer Registry (CCR), an administrative survey that collects information on cancer incidence nationwide. Some provinces, such as Ontario, maintain a renal disease registry to capture information about patients receiving care at participating chronic kidney disease clinics and dialysis centers. British Columbia maintains a congestive heart failure registry and a diabetes registry, and Ontario is currently developing an electronic registry for diabetes.

Public reporting on provider performance: There is no public information available on individual doctor performance. However, the Canadian Institute for Health Information—an independent, not-for-profit organization funded by the federal and provincial governments—produces regular reports on health system performance, including hospital standardized mortality rates and waiting times. Reporting on health system performance varies widely across the provinces/territories; several have established quality councils that report on quality of care and system performance (e.g., the Saskatchewan Health Quality Council).

Some jurisdictions are phasing in new payment systems for physicians and hospitals which build in expectations of quality and volume of care (e.g., pay-for-performance initiatives that are increasingly used in physician payment models, activity-based funding as part of wait times reduction initiatives, and a new law in Ontario that links hospital executive compensation with hospital performance).

Accreditation/revalidation: There is no system of professional revalidation for physicians in Canada, and each province has its own process of ensuring physicians engage in lifelong learning. For example, three provinces (Saskatchewan, Ontario, and Québec) mandate the participation in an education program for

physicians to keep their professional license, whereas other provinces rely on peer review and self-assessments.

What is being done to improve efficiency?

Pharmaceuticals: The National Pharmaceutical Strategy (NPS), established in 2004, addresses the challenges and opportunities across the drug life cycle using an integrated, collaborative, multipronged approach to pharmaceuticals within the health care system. It is intended to develop nationwide solutions to concerns about affordability and safety of prescription medications. A number of achievements have been made so far, including the expansion of the Common Drug Review and the establishment of a Drug Safety and Effectiveness Network. Progress continues in ways that respect areas of federal and provincial/territorial responsibilities.

The Common Drug Review (CDR), created in 2002, reviews the clinical and cost-effectiveness of drugs, and provides common formulary-listing recommendations to the publicly funded drug plans in Canada (except Québec) that are advisory in nature, supporting greater consistency of public drug plan access and evidence-based resource allocation. Before its creation, Canada's public drug plans each had separate processes for conducting reviews and making formulary listing recommendations. Although initially created to review new chemical entities only, the CDR was expanded starting in 2007–2008 to include new indications for old drugs (a significant area of growth for pharmaceuticals), as well as class reviews, further contributing to system efficiencies. In Québec, the Conseil du médicament conducts cost-effectiveness analyses of medications and provides recommendations to the provincial government for the provincial formulary.

While patented drug prices are regulated federally, individual jurisdictions are responsible for generic drug pricing. Analytical work conducted under the NPS indicated that Canada's generic drug prices were among the highest in the world. Since these findings, several jurisdictions have undertaken generic drug pricing reforms to make better use of existing resources, redirecting savings to other health care-related priority areas (see below under cost containment).

In Canada, medical devices and equipment are licensed by the federal government, but purchasing decisions are made at the provincial/territorial level, as provinces and territories have primary jurisdiction over health care delivery. Recognizing that technological change has been characterized as a major cost escalator, there is increasing interest in ensuring good value for money. To this end, Health Technology Assessment (HTA), which is defined as the systematic evaluation of the clinical effectiveness, cost-effectiveness, and the broader impact of health care technologies including drugs, medical devices, and procedures, is a critical tool to support and inform decision-makers about health policy/purchasing, service management, and clinical practice. Canada's HTA organizations include: a national body, the Canadian Agency for Drugs and Technologies in Health (CADTH); specialized provincial agencies in Alberta, Ontario, and Québec; and a growing number of provincial and regional units. CADTH's HTA Program provides high-quality information about the clinical effectiveness, cost-effectiveness, and broader impact of drugs, medical technologies, and health systems.

How is health information technology being used?

Federal/provincial/territorial collaboration to expand the use of health information technologies in Canada's health care system began over 10 years ago. The core feature of this work consists of electronic health records (EHRs), which are secure digital records of patients' histories, accessible along the continuum of care and across Canada, to improve the quality, efficiency, and safety of health care. Canada Health Infoway (Infoway), a federally funded, independent, not-for-profit corporation, collaborates with governments and health organizations to accelerate the implementation of compatible EHRs and related technologies such as telehealth and public health surveillance systems. All

provincial/territorial governments and Infoway have agreed on a common architecture, and projects are under way in every jurisdiction to develop and implement EHR components. Much has been, or is being, accomplished toward Infoway's goal of having 50 percent of Canadians with their EHR available to authorized health care providers by 2011. While progress stood at 22 percent in March 2010, Infoway forecasts that the country will be very close to the 50 percent goal by the end of 2010 and will cross this threshold in the first half of 2011.

Uptake of Electronic Medical Records (EMRs), which contain setting-based health information for patients, varies across Canada. The 2009 Commonwealth Fund International Health Policy Survey of physicians found that overall in Canada, 37 percent of doctors reported using EMRs, up from 23 percent in 2006. Total federal investments of CAD\$2.1 billion (US\$2.0 billion) since 2001 in Infoway include the latest allocation of CAD\$500 million (US\$498 million) confirmed in 2010. This funding will focus on supporting the implementation of EMRs and the connection of clinical settings (e.g., doctors' offices, hospitals, and community care facilities) with the EHR.

How is evidence-based practice encouraged?

Prescription drugs are one of the largest categories of health care spending in Canada, yet evidence shows that pharmaceuticals are not always used effectively or appropriately. The optimal use of medication, to improve health outcomes, is an important focus in Canadian health care and is central to the mandate of the Canadian Optimal Medication Prescribing and Utilization Service. While clinical guidelines are not formally produced, this program, also under CADTH, was created in 2004 to identify and promote evidence-based, clinical, and cost-effectiveness information on optimal drug therapy. COMPUS defines optimal drug therapy as an approach that, based on the evidence, is clinically effective and cost-effective, and contributes to optimal health outcomes. Strategies, tools, and services are provided to encourage the use of this information in decision-making by health care providers and consumers. At the time of its launch, it was the first service of its kind in the world.

How are costs contained?

For 2010, public and private sector spending on health care in Canada is forecast to reach CAD\$192 billion (US\$191 billion) or CAD\$5,614 per person (US\$5,589). As a share of GDP, it continued to grow from an estimated 10.5 percent in 2007 to 11.7 percent in 2010 (Source: Canadian Institute for Health Information data released October 28, 2010).

Cost control is principally attained through single-payer purchasing power and increases in real spending mostly reflect government investment decisions and/or budgetary overruns. Cost-control measures include mandatory annual global budgets for hospitals and health regions, negotiated fee schedules for health care providers, drug formularies, and reviews of the diffusion of technology. Moreover, human resources restrictions, both for physicians and for nurses, are used as a means of curbing health care expenditures. Many governments are developing pricing and purchasing strategies to obtain better drug prices. In summer 2010, all provinces and territories agreed to establish a pan-Canadian public sector purchasing alliance of common drugs and medical equipment and supplies.

The Patented Medicine Prices Review Board (PMPRB), an independent, quasi-judicial body established by Parliament, regulates the introductory price of new patented medications in Canada (except for those that were marketed prior to obtaining a patent, perhaps because of delays with obtaining a patent). The PMPRB ensures that patented drug prices are not *excessive* on the basis of their *degree of innovation* and through a comparison with the prices of existing medicines in Canada and with the prices in seven comparator countries, including the United States and the United Kingdom. The provinces have jurisdiction over prices of generic drugs, and have control over pricing and purchasing for public drug plans, leading to some variations in drug prices.

The pricing of generic drugs varies according to province. In Ontario, the prices of generic drugs were reduced from 50 percent of the brand-drug price to 25 percent in 2010. In British Columbia, commencing in 2010, generic-drug prices are being reduced from 65 percent to 35 percent (to be phased in over three years). Similar reforms are emerging in Alberta and Québec.

What system innovations have been introduced?

In January 2009, a new, federally funded Drug Safety and Effectiveness Network (DSEN) was announced to generate and exchange new, post-market (“real world”) evidence regarding the safety and effectiveness of pharmaceuticals. The DSEN, located at the Canadian Institutes of Health Research, will respond to decision-makers’ needs for information and increase capacity to undertake high-quality research in this area. New evidence generated will inform decision-making about the regulation, public reimbursement, and safe and optimal prescribing and use of drugs.

Elements of a new Food and Drugs Act and Canadian Consumer Product Safety Act relevant to prescription medicines are pending. In the area of pharmaceuticals, there are also a number of purchasing and pricing initiatives to contain inflationary spending (e.g., Ontario’s Transparent Drug System for Patients Act).

Canada has ramped up investments in data to monitor and publicly report on health system performance. For example, results of the new National Survey of the Work and Health of Nurses offer insights about practice conditions, physical and mental well-being, workplace challenges, and views on quality of nursing care. Results of the new Canadian Survey of Experiences with Primary Health Care (the latest survey was in 2008) offer insights regarding interprovincial differences in access, experiences, and views on quality, as well as the ways in which use of primary care have an impact on use of specialists, emergency departments, and hospitals.

The Mental Health Commission of Canada has undertaken a number of initiatives, such as an anti-stigma campaign, a mental health strategy, and a knowledge exchange center to focus attention on mental health issues and to work to improve the health and social outcomes of people living with mental illness.

The Danish Health Care System, 2010

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Who is covered?

Coverage is universal and compulsory. All those registered as residents in Denmark are entitled to health care that is largely free at the point of use.

What is covered?

Services: The publicly financed health system covers all primary and specialist (hospital) services based on medical assessment of need. Preventive services, mental health services, and long-term care are also covered. Specific decisions on service level and introduction of new treatments are ultimately made by the regional (health care) and municipal (social care, care for the elderly, prevention, and some rehabilitation) authorities, but based on regulation and guidelines from the state. There is no fixed definition of benefit package.

Cost-sharing: There is no cost-sharing for hospital and primary care services. There are some cost-sharing arrangements for other publicly covered services. Cost-sharing applies to dental care for those age 18 and over (coinsurance of 35% to 60% of the cost of treatment), outpatient drugs, and corrective lenses. An individual's annual outpatient drug expenditure is reimbursed at the following levels: below DKK 850 (US\$159)—no reimbursement (60% reimbursement for minors); DKK 850–1385 (US\$159–US\$259)—60% reimbursement for minors; DKK 1,385–2,990 (US\$259–US\$560)—75% reimbursement; above DKK 2,990 (US\$560)—85% reimbursement (MISSOC 2010). In 2005, out-of-pocket payments, including cost-sharing, accounted for about 14 percent of total health expenditure (World Health Organization 2007).

Safety nets: Chronically ill patients with a permanently high use of drugs can apply for full reimbursement of drug expenditure above an annual out-of-pocket ceiling of DKK 3410 (US\$658). People with very low income and those who are terminally ill can also apply for financial assistance, and the reimbursement rate may also be increased for some very expensive drugs. Complementary private health insurance provided by a not-for-profit organization reimburses cost-sharing for pharmaceuticals, dental care, physiotherapy, and corrective lenses. In 2007 it covered about 36 percent of the population. Coverage is relatively evenly distributed across social classes.

How is the health system financed?

Publicly-financed health care: A major administrative reform in 2007 gave the central government responsibility for financing health care. Health care is now mainly financed through a centrally collected tax set at 8 percent of taxable income. The new proportionate health tax replaces a mixture of progressive central income taxes and proportionate regional income and property taxes. The central government allocates this revenue to five regions (80%) and 98 municipalities (20%) using a risk-adjusted capitation formula and some activity-based payment. The municipalities pay a copayment to the regions for hospital treatment of their citizens. The idea is to create incentives for municipalities to increase prevention activities. Public expenditure accounted for around 82 percent of total health expenditure in 2005 (World Health Organization 2007).

Private health insurance: Complementary private health insurance has been common in the Danish health system since the 1970s. Complementary insurance has traditionally been used to cover the costs of copayments in the statutory system (mostly for pharmaceuticals and dental care), and for services not fully covered by the state (some physiotherapy, etc.). The not-for-profit organization Danmark has been the sole provider of such complementary insurance in the past. It covered around 2 million Danes in 2007 (36% of the population).

The past decade has seen a rapid growth in number of people buying *supplementary* private health insurance (VHI). In 2002 there were around 130,000 policies administered; that number reached almost 1 million in 2008. These plans provide access to private treatment facilities. In addition, 2.2 million policies have been administered that provide a lump sum in case of critical illness. Supplementary insurance is typically provided as a fringe benefit as an alternative to income. It has been a conscious goal of the liberal/conservative government since 2002 to facilitate a stronger role for private actors in health care, e.g., by exempting supplementary insurance provided by employers from taxation since 2002. Provider's fees are negotiated with each voluntary health insurer.

How is the delivery system organized?

Government: The five regions are responsible for providing hospital care and own and run hospitals. The regions also finance general practitioners, specialists, physiotherapists, dentists, and pharmaceuticals. The 98 municipalities are responsible for nursing homes, home nurses, health visitors, municipal dentists (children's dentists and home dental services for physically and/or mentally disabled people), school health services, home help, and the treatment of alcoholics and drug addicts. Professionals involved in delivering these services are paid a salary.

Primary care: Self-employed general practitioners act as gatekeepers to secondary care and are paid via a combination of capitation (30%) and fee-for-service. The structure is gradually shifting from solo to multi-practices. More and more practices employ specialized nurses that can perform diagnostic tests etc. General practitioners participate in various formal and informal network structures. They are formally included in the health service agreements made between the regions and the municipalities to facilitate cooperation and improve patient pathways. Registration with a primary care doctor is required for all Danes that choose Group 1 public service option (98% of all Danes). GPs are intended to function as coordinators of care for patients, and to develop a comprehensive view of individual patient needs, in terms of both prevention and care. All general practitioners are linked to electronic information systems that provide discharge letters and can be used for electronic referrals and prescriptions to pharmacies.

Practicing specialists: Self-employed practicing specialists provide outpatient specialist care. They are paid fee-for-service according to general agreements with the regions for referred patients, and negotiate individual rates for VHI and out-of-pocket services.

After-hours care: After-hours care is organized by regions and delivered by general practitioners. Individual primary practitioners participate on a voluntary basis. Fees for participating are higher than during regular hours. After-hours services are mostly provided at clinics that are often colocated with hospital emergency departments. Home visits are carried out for acute cases and patients that are not mobile.

Hospitals: Almost all hospitals are publicly owned (approximately 99% of hospital beds are public). They are paid partly via fixed budgets determined through soft contracts with the regions and partly on a fee-for-service basis. Hospital physicians are employed by the regions and paid a salary.

The regional hospital systems are organized to provide all types of services. Patients have a free choice of public hospitals upon referral. Choice patients in other regions are funded by 100 percent of the diagnosis-related group (DRG) rates. A waiting time guarantee provides extended free choice to private facilities in case of expected waiting times exceeding one month from referral to treatment for all procedures. Public hospitals are financed through general income taxation at the state level. The state redistributes funding to the regions as block grants based on mixed sociodemographic criteria combined with some activity-based funding for selected areas. The regions decide on budgeting mechanisms for hospitals, but are encouraged to use activity-based funding for up to 50 percent. DRGs are used for the

activity-based funding. All regions have caps on the activity-based funding, which essentially means that hospitals are operating on a target level, which is increased annually according to expected productivity gains. Public hospitals are not allowed to see private patients.

Long-term care: Long-term care (LTC) includes hospital services that are funded as other types of hospital care. LTC outside of hospitals is organized and funded by the municipalities based on needs assessment, and is unrelated to means. The municipalities are obliged to organize markets with open access for both public and private providers to accommodate free choice of home care services. A few municipalities have also outsourced institutions for elderly care, but 90 percent or more remain public. Hospices are organized by the regions, and may be public or private.

Mental health care: Specialized psychiatric care is organized regionally as part of the hospital system and funded by DRG rates. Social psychiatry and care is a responsibility of the municipalities, which can choose a combination of private and public service providers, but most are public.

What are the key nongovernmental entities for system governance?

Governance is organized as either state or regional/municipal functions. In some cases, semi-independent joint organizations are established to carry out system governance, for instance as in the case of the Danish Healthcare Quality Programme. This agency consists primarily of medical professionals and works to develop extensive accreditation standards that shape health care quality across all health care sectors. Standards within this program must be approved by the International Society for Quality in Health Care (ISQua). IKAS, the Danish Institute for Quality and Accreditation in Healthcare, develops, plans, and manages the Danish Healthcare Quality Programme. IKAS refers to a board comprising representatives from the National Board of Health, the Danish regions, and Ministry of Health and Prevention. In its capacity as an accreditation organization, IKAS must be approved by ISQua as well. In this sense there are nongovernmental entities performing "meta-governance" of the Danish system.

What is being done to ensure quality of care?

A comprehensive standards-based program for assessing quality is currently being implemented. The program is systemic in scope, aiming to incorporate all health care delivery organizations and including both organizational and clinical standards. Organizations are assessed on their ability to satisfy standards in processes and outcomes. The core of the assessment program is a system of regular accreditation based on annual self-assessment and external evaluation (every third year) by a professional accreditation body. The self-assessment involves reporting of performance against national input, process, and outcome standards, which allows comparison over time and between organizations. The external evaluation begins with self-assessment and continues on to assess status for quality development. Quality data for a number of treatment areas are captured in clinical databases (www.nip.dk) and published on the Internet (www.sundhedskvalitet.dk, www.nip.dk). The data are used for a variety of purposes, including patient choice of hospitals and management of hospital quality. Free choice of public hospital, and the extension of choice to private facilities at the expense of the home region if waiting times exceed one month, are also seen as ways to encourage public hospitals to deliver better service quality.

The standards within the program enforce the use of national clinical guidelines, where available. A national unit within the National Board of Health is gradually developing such guidelines for all major disease types.

Standard treatment packages (patient pathway descriptions) have been elaborated, e.g., for cancer treatment. Hospital departments are monitored on their ability to live up to process standards.

There are no explicit standard sanctions or economic rewards tied to performance monitoring. The regions take action in case of poor results and may fire hospital managers or introduce other measures to

support quality improvement. The National Board of Health may step in if entire regions fail to live up to standards.

Health technology assessment (HTA) is made locally, regionally, and nationally. It is facilitated and financially supported by a national unit for HTA within the National Board of Health. It provides important input to decision-making in health policy at all levels.

What is being done to improve efficiency?

In the last few years, many national and regional initiatives have aimed to improve efficiency, with a particular focus on hospitals. For example, Denmark has been at the forefront of efforts to reduce average lengths of stay and to shift care from inpatient to outpatient settings. The administrative reforms of 2007 aimed to enhance the coordination of service delivery and to achieve both quality and efficiency gains by centralizing treatment in larger units. The reforms reduced the number of regions from 14 to five, and the number of municipalities from 275 to 98. The regions are currently restructuring their hospital infrastructure, closing down or amalgamating small hospitals while building new hospitals for specialized care. The introduction of a Danish DRG system in the late 1990s has facilitated benchmarking, productivity analysis, and various partially activity-based payment schemes (for example, for patients crossing county borders).

Productivity comparisons are published on a regular basis, allowing regions and hospital managers to benchmark performance of individual hospital departments.

How is health information technology being used?

Health information technology (IT) is used at all levels of the health system, and a national strategy for use of IT in health care exists (<http://www.regioner.dk/Sundhed/Sundheds-IT/~media/8C320C7470DD473A9ACF7083CD87798F.ashx>). Sundhed.dk is a national IT portal with differentiated access for health personnel and citizens. The portal provides general information on health and treatment options for citizens. It also provides access to the citizen's own medical records and history. For professionals, the site serves as an entry to medical handbooks, scientific articles, treatment guidelines, waiting times, and treatments offered in hospitals, etc. Professionals may also view patient records for their own patients through the system, and get access to laboratory tests, etc. The portal also provides access to the available quality data for the clinic.

Each region has developed its own Electronic Patient Record system for hospitals, although with adherence to national standards for compatibility. All primary care clinics use IT for electronic journals and communication with regions, hospitals, and pharmacies. A report from the European Union Commission from April 2008 ranked Danish general practitioners as number one on the use of IT in Europe (<http://www.ehealthnews.eu/content/view/1113/62/>). A shared e-based "medical card" with all information on prescriptions and use of drugs is currently being implemented. Danish general practitioners also have access to an online medical handbook with updated information. Another initiative is the gradual implementation of clinical databases to monitor quality in the primary care sector (DataFangst).

How is evidence-based practice encouraged?

Health technology assessment based on available international evidence provides input for decision-making at local, regional, and national levels. The Danish Healthcare Quality Programme has now been implemented for all hospital organizations, and is in the process of being integrated into primary care and pharmacies. This program includes clinical standards that relate to the use of evidence-based practice. The National Board of Health develops these clinical guidelines based on available international evidence. The regions develop more specific practice guidelines for their hospitals and other health organizations based on the general national recommendations.

How are costs controlled?

Annual negotiations between the central government and the regions and municipalities result in agreement on the economic framework for the health sector, including overall levels of taxation and targets for expenditure. The negotiations contribute to control of public spending on health by instituting a national budget cap for the health sector. At the regional and municipal level, various management tools are used to control expenditure, in particular contracts and agreements between hospitals and the regions, and ongoing monitoring of expenditure development. However, the introduction of a one-month general waiting time guarantee (for all services) and predefined treatment “packages” with specified short waiting times between different parts of the treatment path for cancers and other life-threatening diseases have made it more difficult for regions to control expenditures. The one-month guarantee implies that patients can seek access to private treatment facilities at the expense of the home region if they face expected waiting times exceeding one month for any type of treatment.

Policies to control pharmaceutical expenditure include generic substitution by doctors and/or pharmacists, prescribing guidelines and systematic assessment of prescribing behavior. Pharmaceutical companies report prices to the national authorities on a monthly basis. The price list is provided to pharmacies, and they are obliged to choose the cheapest alternative with the same active ingredient, unless the prescribing doctor has explicitly stated that he/she prefers a specific drug. Patients may choose more expensive drugs, but have to pay the difference in price out-of-pocket. Pharmaceutical expenditures at the hospital level are reduced through coordinated purchasing strategies and recommendations. Health technology assessment is now an integral part of the health system, with assessments carried out at central, regional, and local levels.

What recent system innovations and reforms have been introduced?

The structural reform of 2007 sought to centralize the administration of hospital care, and merged the previous 14 county units into five regions. The five regions are currently reorganizing their hospital systems, closing or amalgamating small hospitals and building new hospital infrastructure for a total of DKK 40 billion (US\$6.9 billion). Reorganization of acute care with stronger prehospital services and larger specialized emergency departments is an important part of the new structure. The National Board of Health has also issued new guidelines for placement of specialized functions.

The structural reform introduced a municipal copayment to the regions for hospital treatment. The idea was to encourage municipalities to pay more attention to prevention and health promotion. Mandatory agreements between municipalities and regions on patient pathways, chronic care, and care for elderly are another policy instrument to promote collaboration. Such agreements must be formalized at least once in each four-year election term for municipal and regional councils, and must be approved by the National Board of Health.

In 2007, the Danish government, regions, and municipalities committed to developing and implementing national care pathways for all types of cancer based upon national clinical guidelines, with the aim is to ensure all cancer patients receive fast-tracked care through all the stages of care. At the end of 2008, pathways for 34 cancer types had been finalized and implemented, covering almost all cancer patients. A national agency monitors the pathways and the speed at which patients are diagnosed and treated.

References

MISSOC (2010). Social protection in the Member States of the European Union, of the European Economic Area and in Switzerland: situation on 1 January 2007,

http://ec.europa.eu/employment_social/spsi/missoc_tables_en.htm#table20

[7](#), accessed on 15 October 2010. Brussels, European Commission.

World Health Organization (2007). World Health Statistics 2007. Geneva, World Health Organization.

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Who is covered?

Coverage is universal. All those 'ordinarily resident' in England are entitled to health care that is largely free at the point of use. Treatment in an Accident and Emergency Department and for certain infectious diseases is free to people not 'ordinarily resident' (Department of Health 2010).

What is covered?

Services: The National Health Service (NHS) covers preventative services; inpatient and outpatient specialist care; physician (general practitioner; GP) services; inpatient and outpatient drugs; dental care; mental health care; and rehabilitation.

Cost-sharing: There are relatively few cost-sharing arrangements for publicly-covered services. Drugs prescribed under the NHS by general practitioners, dentists and other independent prescribers are subject to a fixed co-payment (£7.20 per prescription in England [US\$11.55]), but about 89 percent of prescriptions are exempt from charges (Information Centre 2008). NHS Dentistry services are subject to patient co-payments of up to a maximum of £198 per course of treatment (US\$316). Out-of-pocket payments, including both cost-sharing and expenditure paid directly by private households, accounted for 11 percent of total national health expenditures in 2007.

Safety nets: Most costs are met from the public purse. There are measures in place to alleviate charges for NHS services where these may have an undue impact on certain patient groups. The following are exempt from prescription drug co-payments: children under the age of 16 years and full-time students up to 18 years; people aged 60 years or over; people with low income; pregnant women and those having had a baby in the last 12 months; and people with certain medical conditions and disabilities. There are discounts through pre-payment certificates for people who use a large amount of prescription drugs. Transport costs to and from provider sites are also covered for people with low income.

How is the health system financed?

National Health Service (NHS): Public expenditure accounts for 83 percent of total expenditure on health in the U.K. (OECD 2010). Around three quarters of NHS revenue comes from general taxation and a fifth from national insurance, with user charges and other sources of income accounting for about another 3 percent each (Department of Health 2006). Apart from the income the NHS receives for prescription drugs and dental services, there is some income from other fees and charges, particularly from privately funded patients who use NHS services.

Private health insurance: A mix of for-profit and not-for-profit insurers provide supplementary private health insurance. In 2006, 11 percent of the population had private health insurance and private health care spending accounted for 1 percent of total health expenditure (Office of Health Economics 2009). Private insurance provides subscribers with health care at a range of private and NHS hospitals. Private insurance offers choice of specialists, faster access to elective surgery and higher standards of comfort and privacy than NHS-financed treatment.

Other: People also pay directly out-of-pocket for some services – for example, care in the private sector. Direct out-of-pocket payments account for over 90 percent of total private expenditure on health (World Health Organization 2009).

How is the delivery system organized?

Government: Responsibility for health legislation and general policy matters rests with Parliament and the Department of Health. The NHS is administered through ten regional strategic health authorities who are accountable to the Department of Health. At the local level, services are provided through a series of contracts between “commissioners” (i.e. purchasers) of health care services (152 Primary Care Trusts; PCTs) and providers (hospital trusts, GPs, independent providers). PCTs control around 80 percent of the NHS budget (allocated to them based on a risk-adjusted capitation formula). Their financing and strategy are largely determined by the strategic health authorities and ministry of health, and they are governed by a team of appointed directors and elected stakeholder representatives. PCTs also provide some community health services directly. The coalition government (elected in May 2010) has announced a re-organization of the way in which the health system is organized; strategic health authorities and PCTs are to be abolished and responsibility for commissioning will be devolved to GPs from April 2013 (subject to consultation and legislation) (Department of Health 2010).

Primary Care: Primary care is delivered through GPs who hold registered lists of patients. The average number of patients registered to a GP practice in 2009 was 6,637. GPs are usually the first point of contact for patients and act as gatekeepers for access to secondary care services. Most GPs practice in small practices with less than five full time physicians. Most GPs are private contractors, operating under an annual national contract, and are paid directly by PCTs through a combination of methods: salary, capitation, fee-for-service, and incentives. The 2004 GP contract introduced a range of different local contracting possibilities as well as providing substantial financial incentives tied to achievement of clinical and other performance targets. GPs increasingly work in multi-partner practices, employing nurses and other clinical staff with consulting rooms for visiting specialists. The number of GPs employed in practices as locums or on a salaried basis is also increasing.

After-hours care: Out of hours care is currently the responsibility of PCTs, who commission a range of providers including GP co-operatives and private companies to provide urgent primary care outside service office hours. Beginning in 2004, the GP contract allows GPs to opt out of providing after-hours care, and almost all choose to do so. In addition, NHS walk-in centers, which offer advice and treatment for minor injuries and illness, are staffed by nurses, open seven days a week, and no appointment is required.

Outpatient specialist care: Most outpatient specialist care is carried out in hospitals, although care has increasingly been delivered by hospital specialists in primary care settings and by GPs with specialist training (GPwSIs – GPs with a specialist interest). Outpatient specialists receive a salary with the opportunity to receive bonus payments based on clinical excellence rewards, the amounts of which are often substantial.

Hospitals: Hospitals are organized as NHS trusts directly responsible to the Department of Health. Since 2004, approximately one-half of NHS trusts have become foundation trusts established as semi-autonomous, self-governing public trusts. Foundation trusts are subject to different regulations than NHS trusts – for example, they have a cap on the proportion of non-NHS funding they can receive, and they have different reporting requirements. Both types contract with PCTs for the provision of services to local populations. Public funds have always been used to purchase some care from the private sector but the level has grown in recent years; since 2003 some routine elective surgery and diagnostics has been procured for NHS patients from purpose-built treatment centers owned and staffed by private sector providers – in 2007/08 the proportion of activity in these centers was less than 2 percent (Audit Commission 2008). Specialist doctors are employed by NHS hospitals on salary, but may supplement their salary by treating private patients. The NHS also contracts with some private hospitals for elective procedures and tests but this is in its infancy.

Dentists: Primary care dental services are delivered in England through a system of local commissioning introduced in 2006. PCTs contract with individual dentists or dental practices for an agreed level of dental services per annum. Some dentists are employed directly by PCTs on a salaried basis. Most dentists provide private as well as NHS care. They set their own fees for private services, or contract with a private insurance company. Private dental care is not generally reimbursed by the public system.

Long-term care: Long-term care is referred to as adult social care in England and covers older people and physically disabled people. While NHS nursing care is provided free in a patient's home, adult social care (i.e. care 'designed to support people to maintain their independence') (Department of Health 2006) is means-tested. Separate government funding is available to people with disabilities according to national eligibility criteria and is not means tested.

State-funded residential care is means tested and is only available to those with less than £23,000 (\$36,000) in assets. The level of state-funded social care provided at home depends on a local council's interpretation of the national framework on eligibility (*Fair Access to Care Services*) - people above the eligibility threshold are means-tested and, likewise, those with assets over £23,000 (\$36,000) are usually expected to pay for their care.

In 2009 the private sector provided 70 percent of residential care places in the U.K., with the local authority providing 12 percent and the voluntary sector 18 percent. (Laing and Buisson 2010)

Mental health care: Mental health care in England is commissioned by PCTs and by Local Authorities, with provision split between the NHS (68 percent), social services (7 percent), the private and voluntary sectors (24 percent) and general medical services (1 percent) (Department of Health 2010). The NHS covers inpatient psychiatric care, although significant efforts have been made to devolve mental health care treatment to community settings. Inpatient psychiatric specialists (consultants) are salaried.

What are the key-non governmental entities for system governance?

The Care Quality Commission ensures basic standards of safety and quality through a licensing and monitoring system, and has the power to issue public warnings, levy fines, de-license or restrict licensing, and prosecute providers for failing to meet licensing standards. The Care Quality Commission is accountable to the ministry of health.

Monitor is responsible for the regulation of foundation trust hospitals. A cooperation and competition panel investigates potential breaches of competition.

The National Institute for Clinical Excellence (NICE) was established in 1999 to provide a 'strong lead on clinical and cost-effectiveness, drawing up new guidelines and ensuring they reach all parts of the health service'. NICE forms a partnership with the NHS, the Department of Health, and clinical professionals by publishing guidelines based on systematic reviews of the available evidence on the use of particular treatments and treatment methods. NICE also provides guidance on how services for particular patient groups should be designed, as well as recommendations for public health and health promotion. NICE recommendations are compulsory and NHS organizations in England at the present are required to provide funding for medicines and treatments recommended by NICE in its technology appraisals usually within three months of guidance being issued. In the case that NICE recommends that a technology or drug be refused, there is an equal obligation for NHS organizations to follow the guidance.

What is being done to ensure quality of care?

Quality issues are addressed in a range of ways including:

Regulatory bodies: In April 2009, the Care Quality Commission took over responsibility for the regulation of all health and adult social care in England, whether provided by the NHS, local authorities, the private sector, or the voluntary sector. All health and social care providers must be registered by the Commission, which also assesses provider and commissioner performance using nationally agreed indicators of quality, investigates individual providers when an issue has been raised, and considers key provision areas in order to recommend best practice.

National Quality Standards: Since 1998 the Department of Health has developed a set of National Service Frameworks intended to improve particular areas of care (for example, coronary, cancer, mental health, diabetes). These guidelines establish national standards and identify key interventions for defined services or care groups. In addition to the National Service Frameworks, NICE is developing 150 quality standards for the main pathways of care by 2015.

Targets: Provider performance is measured against a range of targets that reflect the quality of care delivered. Waiting times have been a particular focus for targets and have been reduced significantly over the past five years. Some of these targets are monitored by the Care Quality Commission; others are monitored on a regular basis either by the Department of Health or the regional strategic health authorities. The coalition government plans to abolish many of these performance targets and replace them with new outcome measures based on a National Outcomes Framework.

Quality and Outcomes Framework (QOF): This is a framework for measuring the quality of care delivered by GPs. It was introduced as part of the new GP contract in 2004, which provided incentives for improving quality, and has been operating since 2005. GP practices are awarded up to 1,050 points related to payments in several areas, including practice organization; patient experience; whether extra services are offered, such as child health and maternity; and how well common chronic diseases, like asthma and diabetes, are managed. The minimum achievement threshold was 25 percent; the maximum threshold varied from 50 percent to 90 percent, depending on the indicator. Physicians can exclude patients for whom they judge particular indicators inappropriate or for administrative reasons (for example, the patient only recently registered with the practice). Each point earned £76 (US\$122) in the first year and £125 (US\$200) thereafter, adjusted for disease prevalence and list size. The QOF is publicly published through an online database.

Disease registers: GPs are awarded QOF points for keeping a disease register of patients with certain diseases or conditions, such as depression and diabetes. Further points are awarded for both managing and treating patients with those conditions in accordance with QOF guidelines and for improving the health of affected patients by, for example, helping them to control their blood pressure or cholesterol levels.

Patient Reported Outcome Measures: Providers are required to report on Patient Reported Outcome Measures, measuring a patient's health status or health-related quality of life before and after intervention.

Quality contracts: The Commissioning for Quality and Innovation payment framework was introduced in April 2009. This requires contracts between commissioners and acute, mental health, ambulance and community service providers to include clauses making a proportion of income conditional on quality improvements.

Quality Accounts: Providers have to produce annual 'Quality Accounts' reporting on the quality of services they provide in terms of safety, effectiveness and patient experience.

Re-licensing and recertification: Since 2009, all doctors working in the UK have been required by law to have a license to practice. This license is based on feedback, appraisal, and assurance by the relevant

medical director. From 2011, GPs and specialist doctors will have to go through an additional process of recertification every five years.

What is being done to improve efficiency?

Efficiency has always been a priority of the NHS and has become more critical with the decrease in public spending following the economic downturn. The government is committed to increasing health spending in real terms until 2015, but this still presents a challenge to the NHS, which received increases of nearly 7 percent per year between 2000/01 and 2010/11, and which must adapt to address the increasing demands of an aging population.

The NHS is seeking to improve efficiency in a number of ways, including:

Payment by Results: A DRG-like activity-based funding system known as Payment by Results has been introduced for acute hospitals with an aim to extend across the whole system of health care providers. Payment by Results relates payment to the quantity and case-mix of activity undertaken, and has resulted in an increased focus on and understanding of the structure of costs. From 2010/11 and for the following three years there will be no rise in the tariff prices. (Department of Health 2009).

Benchmarking: NHS organizations are benchmarked against the performance of their peers on a number of activity measures, including ambulatory surgery rates and lengths of stay for common operative procedures, waiting times, hospital-acquired infections, outcomes, readmission rates and NHS reference costs (costs of standard procedures known as Healthcare Resource Groups). Benchmarking information is publicly available online through Dr. Fosters, which releases an annual hospital rating report. Comparative information on GPs is publicly reported through the QOF.

Quality, Innovation, Productivity and Prevention Programme (QIPP): QIPP is a set of locally determined NHS plans to improve quality of care while making efficiency savings. These local plans are being supported by national QIPP initiatives where appropriate.

Commissioners: Commissioners – i.e. purchasers – are expected to provide improved value for money through improved allocative efficiency and program budgeting. Since 2007, a greater emphasis has been placed on the role of commissioning through two initiatives, World Class Commissioning and Commissioning for Quality and Improvement, which seek to improve the tools available to commissioners to enhance value..

Management savings: The coalition government has proposed cuts to management costs and has published plans to reconfigure arms lengths bodies as part of wide health system reform.

Back office services: Initiatives to reduce costs of back office services include the Department of Health's NHS Shared Business Service, which provides shared functions such as finance, payroll and e-procurement for an estimated 100 NHS organizations.

Central procurement: The NHS Purchasing and Supply Agency was established to support improved procurement in 2000. It claimed to have saved £599 million (US\$960 million) in 2008/9 with regional procurement saving a further £144 million (US\$231 million). It was dissolved in 2010 and its functions involving national contracts were transferred to the Office of Government Commerce – the central government purchasing agency.

How is health information technology being used?

The government has played a key role in the development and implementation of an integrated health information technology system for the whole of the NHS. In 2005, the Department of Health established a

new organization, Connecting for Health, as the single national IT provider for the NHS, being responsible for implementing a range of new IT systems across the NHS. These programs to date include:

1. The NHS Care Records Service (NHS CRS);
2. Choose and Book;
3. Electronic Transmission of Prescriptions (EPS);
4. New National Network (N3);
5. The email and directory service (NHSmail);
6. Picture Archiving and Communications Systems (PACS);
7. General Practitioner payments; and,
8. Delivering existing IT products and services to the NHS.
9. NHS Choices (a website that allows patients to view side-by-side performance quality comparisons for hospital and specialist services)

Every patient registered with the NHS receives an NHS number, which acts as a unique patient identifier. The Government is currently implementing a Summary Care Record that will store key patient data for all patients except those who elect not to have one. The data will include information held on GP systems and information such as discharge letters from hospitals. Key to the development of the NHS Care Records Service is the Spine, which is a national database of key information about the health and health care of patients. It is intended that the Spine will store personal demographic information as well as summarized clinical information, such as a patient's allergies and visits to A&E departments – known as the Summary Care Record (SCR). Healthcare professionals will only be able to access the Spine via a smartcard (similar to chip-and-pin debit and credit cards) which will be issued by registration authorities. The Spine is also intended to bring together all local IT systems within the national program, and Connecting for Health has installed a new national network to support the transfer of clinical data between sites (NHS Connecting for Health 2007). Since 2007 the SCR has been developed across a number of 'early-adopter' and other sites in England; however by March 2009 just over 250,000 individual records had been produced, indicating that there is a long way to go (Department of Health 2009).

The NHS number is not currently used in the adult social care system, and individual hospital and general practice clinical systems are mostly not integrated. Increasingly, information from primary and secondary care is being pooled in 'data warehouses' on a PCT-by-PCT basis to inform the development of services.

How is evidence-based practice encouraged?

NICE sets guidelines for the NHS on clinically effective treatment and appraises new health technologies for their efficacy and cost effectiveness. The key role of NICE is in the determination of whether interventions provided within the NHS – drugs and other technologies, procedures, clinical guidelines, and to some extent, systemic interventions– are safe, effective and cost-effective. Since 2000, NICE has published several hundred such reports. NHS service providers are required to implement NICE guidance and findings. NICE was given a new role in April 2009 to assist in improving quality in the NHS by setting quality standards and advising on indicators for the Quality and Outcomes Framework under which general practice operates

NICE's appraisals are based on cost effectiveness criteria called cost utility analysis, in which the benefits of a treatment or service are expressed in terms of the quality and quantity of life-years gained when it is compared to an alternative—quality adjusted life years (QALYs). NICE's unofficial cost effectiveness threshold range for funding a treatment is £20, 000 to £30, 000 (USD\$32,069 to \$48,104) per QALY.

NICE recommendations are currently compulsory and NHS organizations in England are required to provide funding for medicines and treatments recommended by NICE in its technology appraisals usually within three months of guidance being issued. In the case that NICE recommends that a technology or drug be refused, there is an equal obligation for NHS organizations to follow the guidance. However, recent proposals suggest that NICE may be removed of its capacity to ban the use of drugs and therapies that demonstrate little value for money. The recently appointed health secretary has expressed shifting the decision of whether or not a patient receives a certain medication back to the GP.

How are costs controlled?

Since 1998, the government has set the budget for the NHS on a three-year cycle. The new coalition government has promised that NHS funding will rise in real terms until 2015. To control demand and costs, the government sets a capped overall budget for PCTs. NHS trusts and PCTs are expected to achieve financial balance each year. Other mechanisms that contribute to improved value for money include arrangements for the systematic appraisal of new technologies through NICE. Successive government negotiations with the pharmaceutical industry as part of the Pharmaceutical Price Regulation Scheme (PPRS) have reduced the cost per prescription, but the total number of prescribed items has continued to rise (The King's Fund 2010).

The PPRS scheme, which typically lasts five years, controls the pricing of all licensed, branded drugs sold to the NHS throughout the United Kingdom. The scheme does not cover generic products or over-the-counter medicines unless these are prescribed. The PPRS set out to control costs by agreeing on a limit on profits that individual companies could earn from the supply of medicines to the NHS. At the same time, the scheme recognized the need for manufacturers to make sufficient return on their investment in R&D of new drugs. The 2005 scheme set a profit target of 21 percent as the return on capital (ROC) that a company could earn from sales of NHS medicines, but profits could be retained within a 40 percent margin of the ROC (i.e. up to 29.4 percent). Excess profits must be repaid to the Treasury or prices decreased to come within the target tolerance. The 2005 scheme also required a price reduction of 7 percent and no price increases were allowed for 12 months unless these were cost neutral for that company.

However, an Office for Fair Trading (OFT) report (Office for Fair Trading 2007) noted that the PPRS profit control has had very little, if any, effect on constraining companies' behaviour; repayments of excess profits and price increases on grounds of insufficient profitability have been negligible.

The newly appointed health secretary has recently suggested replacing the PPRS scheme with value-based pricing, in which the NHS would negotiate the price of pharmaceuticals based not only on clinical-effectiveness, but on the product's capacity to reduce the burden of patients and carers, on how many similar products are available, and how 'innovative' the manufacturer has been in producing the drug.

What system innovations and reforms have been introduced?

A coalition government comprising Conservatives and Liberal Democrats was formed after the election in May 2010. It has set out a radical program for reform to be implemented by the end of 2014 (Department of Health 2010b), subject to consultation and legislation. The key points of this program are:

Organization: Strategic Health Authorities and PCTs are to be dismantled. A new NHS Commissioning Board, independent of the Department of Health, will be established in shadow form in 2011 and as a statutory body in 2012. The Secretary of State for Health will set a formal mandate for the board over a three year period, to be updated annually. This mandate will include measuring progress against a new NHS Outcomes Framework with outcome goals chosen (after consultation) by the Secretary of State.

Commissioning: From April 2013, statutory responsibility for commissioning will devolve from England's 150 primary care trusts and 10 strategic health authorities to approximately 500 general practitioner consortia. The NHS Commissioning Board will allocate resources (over 80 percent of NHS spending) to these consortia and will hold them accountable for their use of resources. Commissioning and payment would be guided by quality standards to be developed by NICE.

Patient choice: Expanding patient choice has been a priority in the NHS, and patients are now able to choose from a range of public and private sector providers. From April 2011 NHS patients will also be able to choose a physician for elective procedures where clinically appropriate. Several initiatives have taken the strategy of giving patients individual budgets to spend on aspects of their care – known as “self-directed care” – and this practice is becoming more widespread.

Providers: All existing NHS hospital trusts will have to become foundation trusts by 2013/14 and the government is proposing expanding foundation trust freedoms. Monitor, which currently regulates Foundation Trusts, will become responsible for the economic regulation of all providers of NHS care from 2013.

Information: More information will be made available to patients on safety, effectiveness and experience. Patients will be able to rate clinical departments according to the treatment they received.

References:

Audit Commission (2008). *Is the Treatment Working? Progress with the NHS System Reform Programme*. London, Audit Commission

Boyle, Sean (2010). United Kingdom: Health System Review. *Health Systems in Transition*, London, European Health Observatory.

Department of Health (2006). *Departmental Report 2006*. London, Department of Health.

Department of Health (2009a). *Departmental Report 2009*. London, Department of Health

Department of Health (2009b) *The Operating Framework for the NHS in England 2010/11*. London, Department of Health

Department of Health (2010a). *Review of access to the NHS by foreign nationals*. London, Department of Health

Department of Health (2010b). *Equity and excellence, liberating the NHS*. London, Department of Health

Department of Health (2010c) *The 2008/09 national survey of investment in adult mental health services*. Mental Health Strategies, Department of Health, London

Information Centre (2008). *Prescriptions Dispensed in the Community - Statistics for 1997 to 2007: England*. Leeds: Information Centre.

Laing and Buisson (2009), Laing's Healthcare Market Review 2009-2010

National Audit Office (2007) Prescribing costs in primary care

OECD Health Data (June 2010)

Office of Health Economics (2009) Compendium of Health Statistics

Office for National Statistics (2010). Public Service Output Input and Productivity: Healthcare

The King's Fund (2010) A high-performing health system

World Health Organization (2009). World Health Statistics 2009. Geneva, World Health Organization

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Who is covered?

Since January 1, 2006, all residents or those paying income tax in the Netherlands are required to purchase health insurance coverage, except those with conscientious objections and active members of the armed forces. Coverage is statutory under the Health Insurance Act (*Zorgverzekeringswet*, or *ZVW*) but provided by private health insurers and regulated under private law. In 2009, roughly 152,000 persons (1% of the Dutch population) were uninsured. This figure has remained stable since 2007. Approximately 50 percent of the uninsured are in their twenties or thirties. In addition to those who should be insured but are not, there is a category of the insured who failed to pay their premium for at least six months (so-called defaulters). In December 2009, 318,500 defaulters were reported. This number increased by 17 percent per year since 2006. In 2009, additional policy measures were taken to enforce payment of the insurance premiums. Asylum seekers are covered by the government and several mechanisms are in place to reimburse the health care costs of illegal immigrants unable to pay for care. New legislation creating a government fund to cover some of the health care costs of illegal immigrants was implemented in 2008.

Prior to 2006, people with earnings above approximately €30,000 (US\$41,831) per year and their dependents (around 35% of the population) were excluded from statutory coverage provided by public sickness funds and could purchase coverage from private health insurers. The government regulated this form of substitutive private health insurance to ensure that the elderly and people in poor health had adequate access to health care and that the publicly financed health insurance scheme was properly compensated for covering a disproportionate amount of high-risk individuals. Over time, growing dissatisfaction with the dual system of public and private coverage led to the reforms of 2006. In 2004, the number of people without insurance coverage was estimated at 223,000, which is 1.4 percent of the population, and higher than in 2009, three years after the reforms.

What is covered?

Services: Insurers are legally required to provide a standard benefits package (Health Insurance Act) covering the following: medical care, including care provided by general practitioners (GPs), hospitals, specialists, and midwives; hospitalization; dental care (up to the age of 18; coverage from age 18 is confined to specialist dental care and dentures); medical aids and devices; pharmaceutical care; maternity care; ambulance and patient transport services; paramedical care (limited physiotherapy/remedial therapy, speech therapy, occupational therapy, and dietary advice); and ambulatory mental care (primary care psychologist: eight sessions) and outpatient and inpatient mental care for the first year. Insurers may decide by whom and how this care is delivered, which gives the insured a choice of policies based on quality and costs.

The government defines the benefit package based on the advice of the Health Care Insurance Board (CVZ). When clarification is required, a detailed interpretation of the package is delegated to the Health Care Insurance Board.

For some treatments, there are exclusions from the basic insurance package:

- For allied health care, generally, a maximum number of sessions are reimbursed;
- For physiotherapy, this limitation is not applicable for a fixed list of chronic diseases;
- Some elective procedures, for instance cosmetic plastic surgery without a medical indication, are excluded; and
- In vitro fertilization: only the first three attempts are included.

The vast majority of people also purchase complementary private health insurance for services not covered by the standard benefits package, such as adult dental care, although insurers are not required to accept all applications.

Long-term care: The Exceptional Medical Expenses Act (AWBZ) is a statutory health insurance scheme for long-term care (see Schäfer et al., 2010). This scheme is intended to provide for those with chronic conditions requiring continuous care that involves considerable financial consequences, such as care for disabled people with congenital physical or mental disorders. Everyone who is legally residing in the Netherlands, and nonresidents who are employed in, and therefore liable for payroll tax in the Netherlands, is compulsorily insured under this Act.

The entitlements that exist under the Exceptional Medical Expenses Act (AWBZ) have been defined in terms of functions. The functions are broadly defined and should describe the need of the patient, thus following demand instead of supply. The functions are:

- Personal care regarding activities of daily living, e.g., help with taking a shower, bed baths, dressing, shaving, skin care, going to the toilet, eating, and drinking;
- Nursing, e.g., dressing wounds, giving injections, advising on how to cope with illness, showing clients how to self-inject;
- Guidance, e.g., helping the client organize his/her day and manage his/her life better, as well as day care or provision of daytime activities, or talking to the client to help him/her modify behavior or learn new forms of behavior in cases where moderate to severe behavioral or psychological problems exist;
- Treatment, e.g., care in connection with an ailment, such as dementia; and
- Accommodation, e.g., some people are not capable of living independent lives, but require, for example, sheltered housing or continuous supervision in connection with serious absent-mindedness.

In addition, the insured are entitled to the use of a nursing aid because of a somatic disability or illness for a maximum of 26 weeks; the use of an interpreter for the deaf; and examination into congenital metabolic diseases as regulated in the regulation care entitlements AWBZ (Regeling zorgaanspraken AWBZ).

Health insurers are formally responsible for implementing the Exceptional Medical Expenses Act (AWBZ); however, this task is mandatorily delegated to regional care offices (Zorgkantoren).

Cost-sharing: The insured pay a flat-rate premium (set by insurers) to their private health insurer. Everyone with the same policy pays the same premium, regardless of age or health status (community rating). In addition, every insured person age 18 and over must pay a deductible ranging from €165 (US\$230) to €665 (US\$927) for any health care costs in a given year (with some services, like GP care, excluded from this general rule). Out-of-pocket payments, including both cost-sharing and expenditure paid directly by private households, accounted for 11.2 percent of total national health expenditures in 2007.

Safety nets: Children are exempt from cost-sharing. The government provides “health care allowances” or premium subsidies for low-income families if the average flat-rate premium exceeds 5 percent of their household income.

In the Netherlands, long-term disability protection is organized separately from health care insurance. Employers have to pay sick employees 70 percent of their salary (up to a certain maximum) for the first two years of their illness. The first two days of sickness may be deducted from their salary. In most branches, collective negotiations between employers and employees have resulted in a 100 percent salary payment in the first year of illness. Maternity leave is a right and allows for a leave of (at least) 16 weeks. Maternity leave may start four to six weeks before the expected date of birth. For employees on maternity leave, 100 percent of the salary is paid, with a maximum of approximately

€4,000 (US\$5,578) per month in 2008. After two years of illness, employees receive a disability pension based on the percentage of income loss they experience because of their disability. Disability applies to both physical and mental conditions. Family members who care for chronically ill people may receive an allowance of €250 (US\$349) per year in 2008 (mantelzorgcompliment) (Schäfer et al., 2010).

How is the health system financed?

Statutory health insurance: The statutory health insurance system (ZVW) is financed by a mixture of income-related contributions and premiums paid by the insured. The income-related contribution is set at 6.9 percent of the first €32,369 (US\$45,134) of annual taxable income. Employers must reimburse their employees for this contribution and employees must pay tax on this reimbursement. For those who do not have an employer and do not receive unemployment benefits, the income-related contribution is 4.8 percent. The contribution of self-employed people is individually assessed by the Tax Department. Contributions are collected centrally and distributed among insurers based on a sophisticated risk-adjusted capitation formula, which considers age, gender, labor force status, region, and health risk (based on past drug and hospital utilization). In 2009, the average annual premium for adults was €1,065 (US\$1,485). The government pays for the premiums of children up to the age of 18. In 2008, total spending on health care was €79 billion (US\$110 billion). In 2009, €83.8 billion (US\$117 billion) was spent; an increase of 5.8 percent.

The insurance market is dominated by the five largest insurer conglomerates, which account for over 80 percent of all enrollees. All insured have the right to switch basic insurance providers during annual open enrollment and insurers must accept all applicants.

Private health insurance: Substitutive private health insurance was abolished in 2006. Most of the population purchases a mixture of complementary and supplementary private health insurance from the same health insurers who provide statutory coverage. This has given rise to concerns about the potential for risk selection, as the premiums and products of voluntary coverage are not regulated. Private supplementary insurance accounts for roughly 3 percent to 5 percent of total annual spending.

The National Agency (NZa) determines provider fees, though a portion of elective hospital care is determined through negotiation between insurers and providers.

How is the delivery system organized?

In the Dutch health care system, private health care providers and health insurers are primarily responsible for the provision of services. Health care is mainly divided into preventive care, primary care, secondary care, and long-term care. Preventive care is mainly provided by public health services.

Primary care: The general practitioner is the central figure in primary care. The gatekeeping principle is one of the main characteristics of the Dutch system and means that hospital care and specialist care (except emergency care) is only accessible upon referral from the GP. All citizens are registered with a GP of their choice, mainly in their own neighbourhood. Patients can switch to a new one without formal restriction. In 2008, there were 8,783 practicing GPs. Many GPs (51%) work in group practices of three to seven, 29 percent work in two-person practices, and 20 percent work in a solo practice. Most GPs are independent entrepreneurs or work in a partnership. GPs receive a capitation payment for each patient on their practice list and a fee per consultation. Additional budgets can be negotiated for extra services, practice nurses, complex location, etc. Experiments with pay-for-performance for quality in primary and hospital care are ongoing. A small share of GPs are employed in a practice that is owned by another GP. A full-time working GP has a practice list of approximately 2,300 patients. On average, patients contact their GP five times per year. Only 4 percent of appointments with a GP result in a referral to secondary care.

Since the 2006 reform, GPs are remunerated according to a cross between the old payment system for ZFW insured (capitation fee per registered patient) and the old payment system for the privately insured (fee-for-service). As a result, the system consists of several components:

- Capitation fee per registered patient;
- Consultation fee for GPs, including by phone;
- Consultation fee for practice nurses (if any), including by phone;
- Contribution for activities that either increase efficiency of GPs or substitute for secondary care (fee-for-service); and
- Compensation for providing after-hours care, mostly based on an hourly rate.

In addition, there are bundled payments for a few chronic diseases (diabetes and chronic obstructive pulmonary disease) and this program is currently broadening (to include heart failure and depression). GPs can employ nurses on salary; the reimbursement for the nurse goes to the GP. This means that any productivity gains through substituting work by GPs with nurses “goes to” the GP.

(Outpatient) specialist care: Secondary care encompasses those forms of care that are only accessible upon referral from a primary care health provider, such as a GP, dentist, or midwife. Hospitals and mental care providers mainly provide these forms of care.

Almost all specialists are hospital-based and either in group practice (65%–70%) or on salary (most but not all in university clinics). Currently, there is a trend beginning for specialists to work outside hospitals—for example, in the growing numbers of ambulatory surgery centers. However, this shift is rather marginal and most ambulatory surgery centers are tied to hospitals.

Hospitals contain both inpatient and outpatient departments as well as 24-hour emergency wards. Outpatient departments are also used for pre- or post-hospitalization diagnosis. There are five types of institutions that provide hospital or medical specialist care:

- Community hospitals
- Academic (university) hospitals
- Specialty hospitals
- Independent treatment centers and ambulatory surgery centers; and
- Community hospitals with designated maximum care facilities (e.g., certain cancer treatments, organ transplantation, in vitro fertilization, or trauma).

After-hours care and emergency care: After-hours care in primary care is organized at the municipal level in GP posts. All hospitals have emergency departments, but also a GP post. The latter is done to avoid overcrowding of the ER after hours. The government requires that GPs provide arrangements for after-hours care, which is now primarily provided through GP-led cooperatives, staffed by medical assistants, nurses, and GPs providing telephone advice, walk-in care, and home visits between the hours of 5:00 p.m. and 8:00 a.m.

Emergency care is provided by GPs, emergency departments, and trauma centers. Depending on the urgency of the situation, patients or their representatives can contact the GP, the GP post (for after-hours care), call an ambulance, or go directly to the emergency department at the nearest hospital (Schäfer et al., 2010).

Hospitals: In 2009, the Netherlands had 141 hospital locations and 52 outpatient clinics organized within 93 organizations, which included eight university hospitals. These hospitals provide practically all forms of outpatient as well as inpatient secondary care. Except in cases of emergency, patients only consult a specialist upon referral from a GP. Most hospitals also have 24-hour emergency departments. There were 98 specialty hospital centers concentrating on specific forms of care or illnesses (e.g., revalidation, asthma, epilepsy, or dialysis). In 2007, there were also over 120 independent treatment centers whose services are limited to nonacute, elective care that can be provided in one-day admissions. Practically all hospitals are private, nonprofit organizations. Hospital budgets were previously developed using a formula that paid a fixed amount per bed, patient volume, number of licensed specialists, and other factors. Additional funds were provided for capital

investment. Since 2006, capital is funded through a prospective payment mechanism. Currently, payment of 34 percent of the hospital care is freely negotiable and takes place through the Dutch version of DRGs known as Diagnosis Treatment Combinations (DTCs). These DTCs cover both the outpatient and inpatient hospital costs as well as specialist costs, thereby strengthening the integration of specialist care in the hospital organization. Hospital physicians practice directly or indirectly under contracts negotiated with private health insurers. Most specialists are hospital-based. Two-thirds of hospital-based specialists are self-employed, organized in partnerships; the remainder are salaried.

Long-term care: Long-term care is provided both in institutions (residential care) and in communities (home care). Long-term care forms an important share of the health care system and costs 38 percent of the total health care budget. Long-term care is financed by the Exceptional Medical Expenses Act (AWBZ). The Center for Needs Assessment (CIZ) has been commissioned by the government to carry out assessment for eligibility under the AWBZ. Patients, their relatives, or their health care providers can file a request with the CIZ for long-term care. The CIZ assesses the patient's situation and decides what care is required. The CIZ then sends this decision to a care office (Zorgkantoor). Patients can choose between receiving a personal care budget to purchase care themselves or receiving the care in kind. Between 1998 and July 2006, the number of personal budget recipients for AWBZ care rose considerably, from 10,000 to almost 95,000.

Home care is provided by home care organizations, residential homes, and nursing homes. In 2007, there were 248 home care organizations and 255 nursing homes or residential homes that also provided home care extramurally. Besides care for the elderly and people with disabilities, home care organizations provide maternity care.

Palliative care/hospices: Most palliative care is integrated into the regular health care system. GPs, home care, nursing homes, specialists, and voluntary workers are responsible for the provision of palliative services. Furthermore, the numbers of hospices and palliative units are growing throughout the country. The Ministry of Health, Welfare and Sport strives for the further integration of palliative care into the mainstream health care system. Health care providers, palliative units, and hospices currently participate in regional networks. The purpose of these networks is to promote integration and coordination of care.

Mental health care: Mental health care is provided both in primary and in secondary health care locations. Primary health care professionals in mental health care include GPs, psychologists, and psychotherapists. In 2007, GPs had 357 contacts per 1,000 listed patients concerning a psychological symptom or diagnosis. When more specialist care is required, the GP refers the patient to a psychologist, an independent psychotherapist, or a specialized mental health care institution. In 2006, 772,000 people were treated in specialized mental health care organizations. Around 75 percent of them received ambulatory treatment; 4 percent had some form of semi-mural care, meaning that the patient stays in the institution for one or more daily periods per week; 14 percent were hospitalized in a closed institution; and approximately 6 percent lived in a sheltered housing facility. Prior to 2008, the Exceptional Medical Expenses Act (AWBZ) financed the majority of mental health care; in 2008 the financing structure was fundamentally reformed. The first 365 days of mental health treatment became included under basic health insurance and are therefore financed under the Health Insurance Act (ZVW).

What are the key entities for system governance?

The national government monitors access, quality, and costs of the health care system. The 2006 reforms introduced a prominent role for health insurers. Health insurers are given the task to increase the efficiency of health care through prudent purchase of health services on behalf of their enrollees. Enrollees are given the right to change insurer every year in case of dissatisfaction. The logic is that critical consumers who have the right to exercise choice induce competition among insurers, and insurers will therefore push health care providers to increase the quality and efficiency of their services. In essence, the government has opted for control at a distance, and future research will be required to determine if this has led to optimal performance for all actors involved.

What is being done to ensure quality of care?

At the health system level, quality of care is ensured through legislation regarding professional performance, quality in health care institutions, patient rights, and health technologies.

The Dutch Health Care Inspectorate: The Dutch Health Care Inspectorate is responsible for monitoring and other activities. Most quality assurance is carried out by health care providers, sometimes in close cooperation with patient and consumer organizations and insurers. Mechanisms to ensure quality in the care provided by individual professionals involve reregistration/revalidation for specialists based on compulsory continuous medical education; regular on-site peer assessments organized by professional bodies; and profession-owned clinical guidelines, indicators, and peer review. The main methods used to ensure quality in institutions include accreditation and certification; compulsory and voluntary performance assessment based on indicators; and national quality improvement programs based on the breakthrough method (Sneller Beter). Patient experiences are systematically assessed and, since 2007, a national center has been working with validated measurement instruments comparable to the Consumer Assessment of Healthcare Providers and Systems (CAHPS) approach in the United States. The center also generates publicly available information for consumer choice on such areas as waiting lists, patient satisfaction, and a few quality indicators, though this is still in a developing phase.

National Institute for Health Care Quality: Recently the Dutch Ministry of Health issued a plan for Parliament deciding that a central body (National Institute for Health Care Quality) needs to be established to further accelerate the process of quality improvement and encourage evidence-based practice. Form and content of this initiative remain unclear. An institute comparable to the National Institute for Health and Clinical Excellence (NICE) in the United Kingdom is possible, but it could also take the form of a virtual umbrella organization that aims to bundle existing initiatives. The urgency is evident. The Dutch Health Care Performance Report 2010 provided indisputable evidence that quality and price of Dutch health services vary substantially across providers, and that more needs to be done (Westert et al., 2010).

What is being done to improve efficiency?

The main approach to improving efficiency in the Dutch health system rests on regulated competition between insurers, combined with central steering on performance and transparency about outcomes via the use of performance indicators. This is complemented by provider payment reforms involving a general shift from a budget-oriented reimbursement system to a performance-related approach (for example, the introduction of DTCs mentioned above). In addition, various local and national programs aim to improve health care logistics and/or initiate “business process reengineering.” At a national level, health technology assessment (HTA) is used to enhance value for money by informing decision-making about reimbursement and encouraging appropriate use of health technologies. At the local level, several mechanisms are used to ensure appropriate prescribing. Dutch authorities are working to establish a central HIT network to enable information exchange across sites of care. As mentioned above, bundled payments for patients with select chronic conditions are also being offered. This program is currently broadening.

How is health information technology being used?

Virtually all GPs have a degree of electronic information capacity—for example, they use an electronic medical record, and can order prescriptions and receive lab results electronically. Hospitals do not show the same degree of uptake, with only 10 percent to 20 percent of hospital specialists using electronic medical records. In addition, these electronic systems for the most part are not nationally standardized or interoperable across domains of care, reflecting their historic development as regional initiatives. The National IT Institute for Healthcare, operating under the health ministry, is tasked with: bringing together all to coordinate their efforts and promote the development and adoption of national standards; making available a safe nationwide communication infrastructure for health care information (Aorta); and introducing a national Electronic Health Record (EHR) with real-time interoperability across sites of care.

How are costs contained?

The new Health Insurance Act aims to increase competition between private health insurers and providers to control costs and increase quality. Insurers are required to use community rating but may selectively contract with providers (network policies), leading insurers to compete on quality rather than risk-selection, and publicly reported quality information provides transparency. However, there is an awareness of rising costs. Increasingly, costs are expected to be controlled by the new DTC system in which hospitals must compete on price for specific services. When the 2006 reforms were first introduced, the government aimed to take a back seat and allow market forces to operate. However, rising health care costs—not least as a result of a rise in doctors' income and volume of services delivered—combined with the economic crisis may force the government to intervene. Recent figures from Statistics Netherlands indicate that health expenditures rose substantially to €83.8 billion (US\$117 billion) in 2009.

What system innovations have been introduced?

The major change of the insurance system took place in 2006 with the introduction of a universal insurance scheme executed by private insurers. This created a level playing field. There is an ongoing review about the coverage of both the standard insurance scheme and the Exceptional Medical Expenses Act. Progress has been made on producing indicator information, although improving transparency remains a focus. In the budget for 2010, reductions are foreseen for specialists costs (which rose more in the past year than planned) and for care allowances via tax reductions. The economic crisis has so far not significantly affected health care costs. Renewed emphasis has been given to prevention (i.e., support to quit smoking will be included in the standard benefit package) and disease management for specific chronic disease groups will be strengthened through the introduction of new financing schemes for integrated care.

Further reading

The text of this contribution is based on two recent publications (Schäfer et al. 2010 and Westert et al. 2010) that give more details about the Dutch health care system.

References

- H. Maarse, "Health Reform—One Year After Implementation," *Health Policy Monitor*, May 2007, available at <http://www.hpm.org/survey/nl/a9/1>.
- W. Schäfer, M. Kroneman, W. Boerma et al., "The Netherlands: Health System Review," *Health Systems in Transition*, 2010 12(1):1–229.
- Statistics Netherlands (2008).
- G. P. Westert, J. Burgers, and H. Verkleij, "The Netherlands: Regulated Competition Behind the Dykes?" *BMJ*, Sept. 7, 2009 339:b3397.
- G. P. Westert, M. J. van den Berg, S. L. N. Zwakhals et al., Dutch Health Care Performance Report 2010, available at http://www.gezondheidszorgbalans.nl/object_binary/o9931_Dutch_Health_Care_Performance_Report_2010_ES.pdf.
- World Health Organization, World Health Statistics 2007. Geneva, 2007.

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Who is covered?

All New Zealand residents have access to a broad range of health and disability services with substantive government funding drawn from general taxes. Public hospital services are free, but patients are required to pay copayments for primary care medical services.

What is covered?

Services: The publicly funded system covers public health preventive and promotional services; inpatient and outpatient hospital care; primary health care services (excluding optometry); inpatient and outpatient prescription drugs; mental health care; dental care for school children; long-term care; and disability support services. Residents have free choice of a general practitioner (GP). There is no defined benefit package; rather, the government has a set of national service requirements implemented by District Health Boards (DHBs). Rationing and prioritization occur largely at the margins and vary by DHB.

Cost-sharing: Copayments are required for GP and nurse primary health care services and for prescription drugs (NZ\$3.00 per item [US\$2.30]). Subsidies for long-term aged care are asset-tested. Complementary and alternative medicines and therapies are paid for in full out-of-pocket, as are private hospital or specialist care, and adult dental care.

Safety net: Primary health care is mostly free for children under age 6 and subsidized for the 96 percent of the population enrolled with Primary Health Organizations (PHOs). Additional PHO funding and services are available for chronic disease patients, those with lower incomes, and Maori and Pacific people. Nonetheless, a quarter of New Zealanders report having avoided seeing a doctor or filling prescriptions because of inability to pay. Public hospitals, including emergency departments, are free.

How is the health system financed?

Government: Public funding is derived from general taxation (87.7%), the accident compensation scheme (11.3%), and local government (0.9%). Public funding accounts for about 79 percent of health care expenditures. The government sets an annual global budget for most publicly funded health services. This is distributed to DHBs using a weighted population-based formula, although the Ministry of Health directly funds around 25 percent of public services. DHBs provide services at government-owned facilities and purchase other services from private providers such as GPs (most of whom are grouped as PHOs), private surgical hospitals for some publicly funded patients, disability support services, and community care. Accident and injury care is financed by a separate, quasi-governmental agency, the Accident Compensation Corporation (ACC), funded by employer and employee levies.

Private insurance: Insurers generally cover medical care in parallel private markets. Private insurance is mostly used to cover cost-sharing requirements, elective surgery in private hospitals, and specialist outpatient consultations. It does not extend to emergency care, as such care is only available in the public sector. About one-third of New Zealanders have some form of private health insurance, which accounts for approximately 5 percent of total health care expenditures. Nearly 75 percent of people with private insurance are covered through nonprofit companies, the remaining through for-profits. Insurers largely self-regulate and are subject to a variety of laws that are expected to be superseded by an Insurance (Prudential Supervision) Bill currently under consideration. There is no common fee schedule among private insurers, as it would be in breach of competition law. Insurers therefore reimburse providers who claim payment for services up to company-specific maximums.

Out-of-pocket spending: Patients are billed copayments for pharmaceuticals and private hospital or specialist care; copayments for GPs have been reduced in recent years with a significant increase from 2002–2008 in government funding for primary care. Adults pay the full cost of dental care. Subsidies for long-term aged care are asset-tested. Out-of-pocket payments, including both cost-sharing and costs paid directly by private households, accounted for 15 percent of total health expenditures in 2007.

How is the delivery system organized?

District Health Boards (DHBs): DHBs cover most aspects of care under a one-budget umbrella. They are responsible for planning, purchasing, and providing health and disability support services for the population in their districts. A DHB has a funding and a service-provision arm, operating government-owned hospitals, health centers, and community services. DHBs (there are 20 in the country) are partly elected (seven members) by the people of a geographic area, and partly appointed (four members) by the Minister of Health.

Physicians: General practitioners act as gatekeepers and are usually independent, self-employed providers, paid through fee-for-service and copayments with government subsidy largely by capitation through PHOs. Around 40 percent of specialists hold joint appointments, working for salaries in public hospitals while maintaining their own private clinics or treating patients in private hospitals. GPs and private specialists tend to own and manage their practices. Many GPs are members of Independent Practice Associations that provide various “back office” and clinical support services.

Hospitals: New Zealand has a mix of public and private hospitals, but public hospitals make up the majority, providing all emergency and intensive care. Private hospital patients with complications are often admitted to public hospitals, in which case the costs are absorbed by the public sector.

Primary care: Over recent years, there has been substantial additional funding to subsidize primary care and improve access to care. Since July 2002, 81 PHOs have been formed, and 96 percent of New Zealanders are now enrolled with a PHO. PHOs are networks of self-employed providers funded by capitation and fee-for-service. Patient registration is not mandatory, but physicians and PHOs must have a formally registered patient list to be eligible for government subsidies. In theory, those enrolled in PHOs have a medical home. However, PHOs vary widely in their size, performance, and activities. The best are exemplars that, if nationally emulated, would mean all New Zealanders had a fully functional, multidisciplinary medical home, although institutional barriers to integrating primary and hospital care remain. Since 2008, a new government has ordered PHO mergers, with the objective of completing around 40. This same government has also commenced development of larger Integrated Family Health Centers that provide comprehensive primary care, after-hours service, and elective procedures for an enrolled population. There is currently no formal mechanism for promoting learning among PHOs.

After-hours care: In cities, after-hours service tends to be provided by GPs on a roster at purpose-built, privately owned clinics, though patient charges are high. A patient’s usual GP routinely receives information on after-hours encounters. In rural areas and small towns, GPs work on call.

Long-term care: DHBs fund long-term care for patients based on needs assessments, various age requirements, and a means test. Those eligible receive comprehensive, fully funded services, including medical care. Residential facilities are mostly private. Many elder or disabled people receive in-home care. DHBs provide hospital and community-based palliative care. A network of hospices provides end-of-life care, of which approximately 70 percent receive funding through DHBs; the remainder do so through fundraising.

Mental health care: DHBs fund mental health care provided in the community and institutional settings with GPs acting as gatekeepers. Patients with routine needs are treated by GPs. Those with more intensive requirements may see a hospital-based specialist, usually in the public sector. DHBs own and run a range of mental health facilities, from acute inpatient to outpatient community services.

Those with long-term care needs are cared for in community settings, usually by nongovernmental agencies who provide various support services on contract to DHBs. New Zealand has only one private psychiatric hospital which does not receive government funding.

What are the key nongovernmental entities for system governance?

As the New Zealand health system is primarily controlled and financed through the public sector, government-funded and appointed entities dominate governance structures, nongovernmental agencies playing only a very minimal role. Of such agencies, many—like the Quality Commission—sit at arm's length from central government. While not directly involved in governance work, District Health Boards New Zealand (DHBNZ) is a national forum for coordinating DHB activities. No nongovernmental agency is involved in cost-control work. Competition issues pertain largely to the private sector and are monitored by the Commerce Commission, a government agency.

What is being done to ensure quality of care?

Between 2004–2010, the Ministry of Health issued a quarterly *Hospital Benchmark Information Report* aimed to improve DHB performance. The report included quality and outcome data on emergency triage rates, acute readmissions, patient satisfaction, hospital-acquired bloodstream infections, and a range of other indicators. From mid-2010, reflecting a renewed focus on hospital performance and quality, DHBs will be held formally accountable to the government for delivering efficient, high-quality care, as measured by achievement of targets across several indicators, many of which resembling those in the *Hospital Benchmark* reports. Public reports on DHB performance are also released that rate each DHB on a series of performance indicators, in such areas as waiting times, access to primary care services, and mental illness outcomes. Data on individual doctor performance are not routinely available. The Health and Disability Commissioner—the patients' advocate within the health system—investigates and reports on patient complaints.

Certification is mandatory for hospitals, nursing homes, and assisted living facilities, subject to defined health and disability standards. Certification audits are often performed in conjunction with accreditation by third parties.

As previously noted, a number of policy elements have been introduced via PHOs, motivated by the desire to reduce disparities and improve patient access. PHOs also receive performance payments for meeting various quality and service delivery targets.

A new Quality and Safety Commission replaced the government's Quality Improvement Committee in mid-2010. The new Commission is intended to increase focus on quality while better coordinating the varied approaches to quality improvement across DHBs. It will continue to oversee existing public hospital programs, which are focused on such issues as optimizing the patient journey, safer medication management, reducing rates of health care-acquired infection, and standardizing national incident management. In addition, the Ministry of Health, District Health Boards, and nongovernmental organizations work collaboratively to achieve health targets identified by the government at the DHB and national levels.

What is being done to improve efficiency?

New Zealand has given considerable attention to elective surgery prioritization, particularly development of access criteria. For several types of surgeries, patients are assigned a score intended to give priority to patients with the greatest need, thereby rationalizing the waiting system. This has been controversial, and regional disparities remain in access to surgery. To improve access to elective surgery, DHBs also contract with the private sector. A publicly accessible National Booking Reporting System reveals how many patients are awaiting treatment, how long those who received treatment waited, and how many patients were referred back to a primary care provider for monitoring. These statistics are used to plan wait-time reduction policies. As noted previously, various DHB-level measures related to efficiency are publicly reported against a series of six targets in areas such as emergency department treatment times; access to cancer, cardiovascular, and diabetes services; elective surgery volumes; and child immunization rates. The inclusion of drugs on the

national formulary is determined by PHARMAC (the Pharmaceutical Management Agency of New Zealand). Relative cost-effectiveness is one of nine criteria used in funding decisions. Improving performance and “lean” thinking in hospitals are recent areas of focus. A National Health Board established in December 2009 is designed to centralize and coordinate various DHB “back office” functions, including information technology, funding and planning, shared services, and procurement, thus reducing duplication across the 20 regions.

How is health information technology being used?

New Zealand is among the first countries to adopt health information technology, particularly in primary care, where it has one of the highest international rates of primary care physician use. Primary care systems are sophisticated, including decision support, e-prescribing, and laboratory referrals. Nevertheless, most physician groups are unable to share records with one another and interoperability with hospital systems and after-hours facilities remains limited, although several DHBs have projects to tackle such issues. Reflecting a host of difficulties, a series of government strategies has been announced since the mid-1990s. Most recently, a National IT Board has been created to coordinate developments including nationally consistent portable electronic patient records. All New Zealand residents have a unique National Health Index number linked to health care events and records.

How are costs contained?

The government sets the annual publicly funded health budget. Using a population-based formula means DHBs must function within their funding allocation. Recent government policy is aimed at reducing administrative duplication and to promote greater sharing of resources across DHB regions, stimulating a focus on DHB and PHO mergers. Primary care funding is shifting to capitation. Scoring systems ensure that elective surgery services are targeted at those most able to benefit. Early intervention, health promotion, disease prevention, and chronic-care management are emphasized in primary care and by DHBs. PHARMAC uses a range of tactics, like reference pricing and competitive tendering, to set prices for publicly subsidized drugs dispensed through community pharmacies and hospitals. Such strategies have helped drive down pharmaceutical costs. If patients prefer unsubsidized medicines, and there are no clinical indications, they pay the full cost.

How is evidence-based practice encouraged?

New Zealand has no specific agency for comparative effectiveness research. However, the government has highlighted a desire for this and, from mid-2010, PHARMAC shifted into assessment of medical devices in what may be an increasing role in broader comparative effectiveness research. PHARMAC assesses the effectiveness of drugs and distributes prescribing guidelines. The New Zealand Guidelines Group, an independent contractor to the Ministry of Health, develops clinical guidelines that are widely disseminated across the health sector. The National Health Committee, an independent advisor to the Minister, has explored comparative effectiveness research and may eventually use this form of analysis exclusively. An Independent Practitioner Association-owned Best Practice Advocacy Centre collates guidelines and effectiveness information and—with funding from the government and PHARMAC—distributes this information to all GPs.

What recent system innovations and reforms have been introduced?

Following the advice of the mid-2009 Ministerial Review Group report, the government has announced a series of initiatives, most of which are outlined above. Such initiatives are designed to improve service efficiency, access, and quality while shifting expenditure away from administration and into patient services. The National Health Board aims to enhance administrative efficiency, coordination, and national procurement; the Quality Commission to improve quality of care; and the role of comparative effectiveness research is being emphasized in policy discussions, although responsibility for this has yet to be specifically assigned to or taken up by any agency. The quarterly publication of DHB performance against six government targets has inspired much of the increased focus on such innovations. Projects to reduce emergency department waiting times have demonstrated the value of “lean” methods designed to improve patient flow, which demand hospital and systemwide application. PHOs have been involved in many provider-driven primary care delivery

programs focused on population health and service integration. In elderly care, there have been promising experiments with personal budgets allowing recipients to directly purchase home help.

New Zealand has serious shortages of health professionals. The health system relies heavily on foreign-born and -trained professionals and is one of the highest importers of doctors in the OECD. To address this gap, a voluntary bonding scheme was introduced in February 2009 to reward medical, midwifery, and nursing graduates who agree to work in hard-to-staff communities and specialties with higher vacancy rates and locum use. The government has also increased the availability of medical school places. DHBs are increasingly working collaboratively to ensure sustainability of and access to specialist services in smaller towns and regions.

The United States Health Care System, 2010

The Commonwealth Fund

Who is covered?

Health care coverage is fragmented, with multiple private and public sources and wide gaps in the proportions of different segments of the population who are uninsured. In 2009, 56 percent of residents received primary coverage from private insurers, with 51 percent receiving it through their employer and 5 percent acquiring coverage directly. Twenty-seven percent were covered under public programs: 14 percent under Medicare (a federal program for those aged 65+ and most disabled), 12 percent under Medicaid (a federal-state program for certain low-income populations), and 1 percent under military health care programs. More than fifty million residents (17% of the population) were uninsured. In 2005, about 8.8 million “dual eligibles” were enrolled in both Medicare and Medicaid. The federal-state children’s health insurance program (CHIP), which offers coverage to low-income children—in some states as an expansion to Medicaid and sometimes as a separate program—was reauthorized and expanded in January 2009 and covers 7 million children.

What is covered?

Services: Benefit packages vary according to type of insurance, but typically include inpatient and outpatient hospital care and physician services. Many also include preventive services, mental health care, physiotherapy and prescription drug coverage. Dental care and optometry coverage also is available—sometimes through separate policies—as is long-term care insurance. In January 2006, Medicare was expanded to offer outpatient prescription drug coverage through a supplementary program, with individuals who are dually eligible for Medicare and Medicaid receiving their drug coverage through Medicare. Medicaid also offers more extensive coverage of nursing home and home health care than other sources of insurance, although it varies from state to state within federal eligibility and coverage requirements. The Centers for Medicare and Medicaid Services (CMS) administers the Medicare program and the federal portion of Medicaid. Private insurance is regulated at the state level, but generally allowed wide discretion in designing benefit packages.

Cost-sharing: Cost-sharing provisions vary by type of insurance.

How is the health system financed?

Medicare: Medicare is a social insurance program for the elderly and the disabled under age 65, including those with end-stage renal disease. Administered by the federal government, the program is financed through a combination of payroll taxes, premiums, and federal general revenues.

Medicaid: Medicaid is a joint federal-state health insurance program covering certain groups of the poor. Medicaid is administered by the states, which operate within broad federal guidelines. States receive matching funds from the federal government in varying amounts – in 2010, supplemented by the 2009 American Recovery and Reinvestment Act, federal matching ranged from 61.6 percent to 84.9 percent of states’ Medicaid expenditures, although there is an enhanced federal match for certain categories of expenditures.

Private insurance: More than 1,200 not-for-profit and for-profit health insurance companies provide private insurance. They are regulated by state insurance commissioners. Private health insurance can be purchased by individuals, or it can be funded by voluntary tax-free premium contributions shared by employers and employees on an employer-specific basis, sometimes varying by type of employee. Employer coverage is the predominant form of health insurance coverage. Some individuals are covered by both public and private insurance. Private insurers in general pay rates to providers that are higher than the rates paid under public programs, particularly Medicaid, leading to wide variations in payment

rates across payment sources and in revenues across providers, depending on their payer mix and market power.

Out-of-pocket spending: Out-of-pocket payments, including both cost-sharing insurance arrangements and expenditure paid directly by private households, accounted for 12 percent of total national health expenditures in 2008, which amounted to US\$912 per capita.

How is the delivery system organized?

Physicians: The majority of ambulatory physicians are in private practices, many of which they own themselves or in groups. The majority of primary care doctors operate in small practices with less than five FTE physicians. Primary care doctors have no formal gatekeeper function, except within some managed care plans. Physicians are paid through a combination of methods: charges or discounted fees paid by most private health plans, capitation rate contracts with some private plans, and administered fees paid by the major public programs. Insured patients are generally directly responsible for some portion of physician payment, and uninsured patients are nominally responsible for all or part of physicians' charges, although those charges frequently are reduced or waived (with the extent of charity care varying substantially across providers).

After-hours care: Provisions for after-hours care varies widely, with much of it provided through emergency rooms.

Hospitals: Hospitals can be for-profit, nonprofit, and public. They are paid through a combination of methods: per-service or per-diem charges, per-admission payments, and capitation. Some hospital-based physicians are salaried hospital employees, but most are paid on some form of fee-for-service basis.

Long-term care: Long-term care is provided by a mix of for-profit and non-profit providers, paid through a variety of methods that vary by provider type and payer. Medicaid, though not Medicare, covers long-term care. Hospice is included as a Medicare benefit.

Mental health care: Mental health care is provided by a mix of for-profit and non-profit providers, paid through a variety of methods that vary by provider type and payer. Starting in 2010, most employer-based insurance will need to provide the same degree of coverage for mental health care as for medical care.

Preventive care: Beginning in September 2010, all private insurance will be required to cover certain preventive services (without cost-sharing, for services provided in-network), and Medicare will eliminate cost-sharing for a number of preventive services.

What are the key non-governmental entities for system governance?

The Institute of Medicine, an independent, non-profit organization that works outside of government, acts as an advisor to policymakers and the private sector on improving the nation's health. Many studies are undertaken in response to specific mandates from Congress or requests from federal agencies or independent organizations. The Institute also convenes a series of forums, roundtables, and standing committees to facilitate discussion and cross-disciplinary thinking.

Stakeholder associations – such as the American Medical Association (physicians), numerous specialty societies, the American Hospital Association (hospitals), America's Health Insurance Plans (private health insurers), the Advanced Medical Technology Association (device manufacturers) and the Pharmaceutical Research and Manufacturers of America (drug manufacturers) – comment on and lobby for policies affecting the health system. Many non-profit organizations and foundations also supply technical and grant support.

What is being done to improve quality of care?

Medicare is developing a variety of programs that seek to align financial incentives with quality of care, commonly referred to as pay-for-performance (P4P). The majority of private insurance providers also have P4P programs. In these programs, payment is tied to a set of quality measures on process of care, health outcomes, cost-efficiency, patient satisfaction, and/or information technology. These programs are typically aimed at primary care physicians and, less often, specialists. Medicare is conducting several P4P demonstration projects aimed at hospitals and physician groups, and is developing approaches for smaller physician practices as well. In 2008, Medicare stopped paying hospitals for the added costs of eight specific preventable events, such as operations to retrieve sponges or tools left inside a patient after surgery.

The Joint Commission—an independent, nonprofit organization—accredits more than 15,000 health care organizations across the country, primarily hospitals, long-term care facilities, and laboratories, based on criteria including patient treatment, governance, culture, performance, and quality improvement. The National Committee for Quality Assurance (NCQA) is the primary accreditor of private health plans. Accredited organizations must report annually on performance measures in over 40 areas and meet more than 60 standards. The American Board of Medical Specialties and the American Board of Internal Medicine provide certification to physicians who pass various quality standards.

CMS has moved toward increased public reporting with Hospital Compare, which reports on process of care, outcome of care, and patient experience measures, and Nursing Home Compare, which reports on a number of quality indicators measured through inspections and a review of records. In addition, states including California, Pennsylvania, and Wisconsin have developed their own public reporting systems for ambulatory care, intended to increase quality improvement and provide benchmark data. In 2011, CMS will launch Physician Compare to profile the performance of physicians and practices.

The Agency for Healthcare Research and Quality (AHRQ), funded by the federal government, conducts evidence-based research on practices, outcomes, effectiveness, clinical guidelines, safety, patient experience, HIT, and disparities.

What is being done to improve efficiency?

The government has funded several initiatives aimed at shifting from a specialist-focused health system to one that is primary care-focused. The “medical home” model—in which a patient can receive targeted, accessible, continuous, coordinated, and family-centered care by a personal physician—has gained interest among U.S. experts and policymakers as a means to strengthen primary care. Under one current program, the Multi-payer Advanced Primary Care Initiative, CMS will partner with multi-payer reform initiatives currently being conducted by states to make advanced primary care practices more broadly available. The demonstration will evaluate whether advanced primary care practice will reduce unjustified utilization and expenditures, improve the safety, effectiveness, timeliness, and efficiency of health care, increase patient decision-making and increase the availability and delivery of care in underserved areas.

Innovation is common among private insurers and practices, but the large degree of fragmentation in the national health system poses a barrier to improving efficiency. Insurance administration costs are high, at 7.0 percent of total health expenditure in 2008. Large-scale coordination is difficult to achieve, and local or regional systems are often incompatible with each other. The large number of uninsured further complicates efforts to improve efficiency. The care they receive but do not pay for is generally absorbed by hospitals, resulting in cost-shifting onto other payers. Also, the uninsured’s encounters with the health system tend to be more resource-intensive than those with regular care—for example, more emergency-room use and less preventive care.

How are costs controlled?

Annual per-capita health expenditure is the highest in the world—US\$7,538 in 2008. Total national health expenditures have been increasing at rates well above increases in national income, with total expenditures reaching 16 percent of GDP in 2008 and expected to reach 19.3 percent by 2019 if current trends continue.

Payers have attempted to control cost growth through a combination of selective provider contracting, discount price negotiations, utilization control practices, risk-sharing payment methods, and managed care. The Medicare Modernization Act of 2003 included new provisions granting tax credits for Health Savings Accounts (HSAs) when coupled with high-deductible (\$1,000+) health insurance plans. HSAs allow individuals to save money tax-free to cover out-of-pocket medical expenses. Tax incentives plus double-digit increases in premiums have led to a shift in benefit design toward higher patient payments.

Medicare, Medicaid, and various private purchasers, including employer groups, are also experimenting with new payment incentives that reward performance. Strategies being implemented include “bundled” payments, which are intended to reward care systems or providers that provide higher-quality and more efficient care.

How is health information technology being used?

Use of health information technology (HIT) in the U.S. is low compared to other industrialized health systems. In 2009, less than half of primary care doctors used an electronic medical record and only 12 percent of hospitals used a electronic record. To stimulate the uptake of HIT, the American Recovery and Reinvestment Act of 2009 (ARRA) made a significant investment through Medicare and the Office of the National Coordinator for Health Information Technology. Incentives for physicians and hospitals, totaling up to \$27 billion over six years, will be tied to attaining benchmarks for the “meaningful use” of HIT. Regional HIT extension centers will be created that provide technical assistance, guidance, and information on best practices to support providers’ use of HIT. “Beacon Communities” with already high rates of HIT adoption will be provided with funding to demonstrate how health IT can be leveraged improve quality, cost efficiency, and population health. Finally, support will be provided for the development and use of clinical registries and linked health outcomes research networks

How is evidence-based practice encouraged?

The ARRA made an investment of \$1.1 billion in research comparing the effectiveness of medications and medical devices. The U.S. Department of Health and Human Services has created a list of priorities for comparative effectiveness research, and research has begun to be funded. The Patient Protection and Affordable Care Act of 2010 (ACA) continued the investment in comparative effectiveness research through the creation of the Patient Centered Outcomes Research Institute (PCORI), tasked with setting national clinical comparative effectiveness research priorities and managing the funding and conduct of research. The scope of research funded through PCORI will be broad, including protocols for treatment, care management and delivery; procedures; diagnostic tools; medical devices; therapeutics; and any other strategies used to treat, diagnose or prevent illness or injury. Comparative research findings may not be presented as practice guidelines, coverage recommendations, or payment or policy recommendations, and comparative research findings alone may not be used to deny coverage. PCORI will be overseen by a board of governors that includes the head of the National Institutes of Health and AHRQ, as well as 19 members from throughout the health care sector who are appointed by the U.S. Comptroller General. PCORI’s research will be funded through a tax on private insurance companies.

What recent system innovations and reforms have been introduced?

In March 2010, President Obama signed into law the ACA, enacting a sweeping series of insurance and system reforms. Major provisions of the legislation include: expanding Medicaid to everyone with incomes up to 133% of the federal poverty level; establishing state-based or potentially regional insurance exchanges

for individuals and small business; providing insurance subsidies for low and medium income individuals and tax credits for small businesses; a series of insurance regulations including guaranteed issue and community rating; eliminating co-payments for recommended preventive services and immunizations; instituting an individual mandate to have health insurance; establishing a voluntary, national insurance program for long-term care; establishing the PCORI to conduct comparative effectiveness research; establishing a Center for Medicaid and Medicare Innovation to develop and test payment models to improve quality and lower costs; establishing an Independent Payment Advisory Board with a mandate to reduce the growth of Medicare expenditures through payment reforms; creating a shared savings program in Medicare to incentivize “accountable care organizations” that take responsibility for efficiently providing care to a defined population and meeting quality targets; increasing Medicare and Medicaid payments for primary care; and expanding federal funding for community health centers that provide care for low income and the uninsured.

The ARRA also made a number of significant investments in the health system, including a short-term boost in federal Medicaid funding and subsidies for the recently unemployed to remain insured. Investments were also made in stimulating the use of HIT and in comparative effectiveness research.

References

2010 OECD Health Data, June 2010.

Paper Guidelines for I LIVE PC (International Learning on Increasing the Value and Effectiveness of Primary Care) Special issue of the **Journal of the American Board of Family Medicine**

Title: [- Primary Care Reform in Australia– Perpetual motion? Tortoise rather than Hare

Authors: Nicholson, C, Jackson, CL & Wells R

Introduction

Health system design and points of interest (Bob)

Primary Care Model

Australian Primary care reform over the past 20 years has been evolutionary rather than revolutionary, but this sector is now poised for significantly enhanced health service responsibilities built around a stable general practice sector. The critical building blocks to support this growth were forged in 1992 with the National Health Strategy 'Future of General Practice' document(1) which promoted a holistic model of care, practice accreditation to RACGP standards, a blended payment model to encourage non-FFS activity, growth in service integration outside the practice, and funding support for IT. Over 100 Divisions of General Practice were born nationally – not-for-profit companies, controlled by GPs and funded primarily by the Commonwealth govt, to encourage local networking between general practices and the broader health sector, a focus on meeting relevant primary care service gaps locally, and practice support. The Practice and Service Incentive Programs provided practices and practitioners with funding for 'quality services' – immunisation targets, quality prescribing and diabetes management – to name a few.

In 1995, Medicare access was extended to practice nurses and allied health providers working with GPs in chronic disease management or aged care. The growth in numbers of non-GPs working in practices increased significantly and today over 8000 practice nurses work in 7000 Australian general practices with an average of 4 GPs/practice (2)(3). A broadened and integrated general practice clinical team was born.

In 2009 Australia launched its first National Primary Health Care Strategy (4) identifying regional integration, information and technology including e-health, improved access and reduced inequity, chronic disease management, prevention, improved infrastructure development, and a focus on quality, safety, performance and accountability as key building blocks and priority areas. Key government platforms to achieve this were the inception of Primary Health Care Organisations (Medicare Locals) to provide an overarching governance framework for primary care, and support for GP Superclinics and infrastructure grants for existing practices to broaden the scope of care.

Infrastructure

- a. Examples of models adapted to local needs:
 - o Beacon practice model- GP superclinics The AAAGP-preferred GP

Superclinic model is the 'beacon' practice model, piloted by the University of

Queensland in 2007/8 (9). It provides the change management, model of care,

professional development and governance strategies to achieve improvements in health outcomes via an integrated primary / specialist service delivery. This approach establishes a ‘hub’ or ‘beacon’ practice locally, which acts to support and extend the capacity of primary care in local practices, and better integrate them with local secondary and other state-funded care. It accomplishes this via a strong commitment to deliver a mustering point for an expanded scope of practice for primary care in areas of local population need, undergraduate and post-graduate teaching for all health disciplines, relevant local clinical research, and a focus on service innovation. Central to the Primary Care Amplification Model is the provision of the core elements of general practice and primary care – first contact, continuous, comprehensive and coordinated care provided to populations undifferentiated by gender, disease, or organ system.(7) The ‘beacon’ features four additional key characteristics – an ethos of supporting primary care both within and external to the practice; an expanded clinical model of care; a governance approach that meets the specific needs of the community it serves; and a technical and physical infrastructure to deliver the expanded scope of practice. It is these characteristics that enable a ‘beacon’ practice to realise its potential. Results to date have included strong relationship building between local practices, strong community buy-in, and a governance model that encourages formal partnership with a myriad of key health stakeholders to fund the care delivered. Clinical innovations have included a GP-led on-site diabetic retinopathy screening service and a complex diabetes service which has delivered better 12 month clinical outcomes than the local tertiary hospital diabetes clinic

○

- Cessnock (John Marley. Min. GP & greater nursing role – how to adapt the funding model to address workforce and pt need)
 - ACCHS (Aboriginal Community Controlled Health Services)
 - Walgatt – (Vlad Mattick. Partnership between Council and State Government)
- b. Governance – Medicare Locals – expected role in regional co-ordination of primary/community care and link to LHNs (hospitals) (Caroline)

Quality & Safety

Collaborative, accreditation (80% practices accredited) – impact (Claire)

In Australia 85 % general practices are accredited. This means from RACGP 4th Edition Standards

All vocationally-registered GPs undergo compulsory QI and CPD, 95% via the RACGP.

In addition, x % practices have participated in the Australian Primary Care Collaboratives program (10). The 'Plan, Do, Study, Act' methodology, pioneered by Sir John Oldham in the UK, has encouraged 100s of Australian general practices to identify change improvement activities in diabetes, CVD or patient access and tutored them in a practice TQI process that has now broadened into many other areas.

Payment & incentives

Federal govt. fund practices and set policy framework encouraging GPs to collaborate (Bob)

Creating and sustaining change

Incremental change process – linking policy and practice, role of primary care organisations – organising 'small businesses' and linking with reform area to better outcomes focus. What is it that has sustained change? (All to input after writing the above sections at a teleconference Wed 23rd March).

Learning's

In early 1990s general practice independent small businesses – applied reform and linked with policy change to a better outcomes focus 0 ?where the US in now. Adaptable model

After I LIVE PC conference

- Things not considered
- Failures and modifications

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Primary Health Care in Canada: Systems in Motion

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Abstract

Context: During the 1980s and 1990s, innovations in the organization, funding and delivery of primary health care in Canada were at the periphery of the system rather than at its core. In the early 2000s, a new policy environment emerged.

Methods: This policy analysis examines primary health care reform efforts in Canada during the last decade drawing on descriptive information from published and grey literature and from a series of semi-structured interviews with informed observers of primary health care in Canada.

Findings: Primary health care in Canada has entered a period of potentially transformative change after decades of policy gridlock. Key initiatives include support for inter-professional team-based care, encouragement of group practices and networks, patient enrolment with a primary care provider, financial incentives and physician payment schemes aligned with health system goals, development of primary health care governance mechanisms, increasing the number and diversity of primary health care providers, implementing electronic medical records and quality improvement support. In several provinces and territories, combinations of these initiatives have been implemented at or scaled up to system level.

Given the formidable policy legacy in Canada of physician autonomy and self-management, the 13 provincial and territorial governments have adopted a voluntary approach to physician engagement in reform. In those jurisdictions where primary health care transformation has been most far-reaching, major policy innovations have been negotiated with the provincial medical association that serves as the physicians' bargaining agent. Ongoing challenges include system complexity, physician engagement, inter-professional relationships, the need for continuing

investment in primary health care infrastructure, persisting inequities in primary health care access and use, and creating performance measurement and evaluation capacity to support decision-making.

Conclusions: Recent Canadian experience suggests that primary health care transformation may be achievable on a voluntary basis in a pluralistic system of private health care delivery given strong government and professional leadership working in concert. Progress is uneven and has taken different forms across the country but fundamental changes in the organization and delivery of primary health care are underway. Whether the momentum will hold steady, accelerate or flag remains an open question.

Keywords: Primary Health Care; Health Care Reform; Health Policy; Physicians, Family

Introduction

Health System Context

Canada has 13 provincial and territorial health care systems that operate within a national legislative framework, the Canada Health Act (1984), that defines the standards to which provincial health insurance programs must conform in exchange for federal funding: universality (coverage of the whole population on uniform terms and conditions); portability of coverage among provinces; public administration; accessibility (first dollar coverage for physician and hospital services); and comprehensiveness (defined as medically necessary health services provided by hospitals and physicians) (Marchildon 2005). In practice, medical necessity is broadly defined; the vast majority of physician services are covered. However, the extent of public coverage for pharmaceuticals, home care, long-term care and the services of non-physician providers such as chiropractors, optometrists and physiotherapists varies across the provinces and territories. Other health care policies, ranging from waiting time targets to the structure of primary care provision, also vary across jurisdictions.

For the most part, health care in Canada is publicly-financed yet privately-delivered. The Medical Care Act (1966) that, together with the Hospital and Diagnostic Services Act (1957), established the basis for Canada's universal, publicly financed health insurance system, known as Medicare, effectively enshrined private fee-for-service practice as the dominant mode of practice organization and physician payment in Canada (Naylor 1986). Physicians were brought into Medicare on terms that included the continuation of fee-for-service remuneration, clinical

autonomy, and control over the location and organization of medical practice. As Carolyn Tuohy has observed, this founding bargain or accommodation between the medical profession and the state “made no changes in the existing structure of health care delivery [and] placed physicians at the heart of the decision-making system at all levels” (Tuohy 1999). Federal and provincial policy makers have been hesitant to challenge this accommodation for fear of jeopardizing the medical profession’s allegiance to Medicare. The leverage afforded to provinces and territories as the single payer for physicians’ services has thus been mitigated by the need to negotiate, rather than impose, changes in physician payment systems and accountability arrangements.

Primary Health Care in Canada

Canada has a low physician to population ratio by international standards.¹ However, the general practitioner to population ratio is above the average for member countries of the Organisation for Economic Cooperation and Development and similar to the United States, but below several other high income countries.² Family physicians comprise 51% of the physician workforce (Canadian Institute for Health Information 2010a). In 2007, 23% of family physicians reported being in solo practice, while 74% said they were in group or inter-professional practice (College of Family Physicians of Canada et al. 2007a). About half (48.3%) derive 90% or more of their professional income from fee-for-service payments; most of the remainder obtain their professional income through a mix of payment types (College of Family Physicians of Canada et al. 2007b).

Ninety-one percent of Canadians say they have a regular source of care, usually a family physician (Canadian Institute for Health Information, 2009). However, many report difficulty obtaining access to both primary and referred care (Blendon et al. 2002; Schoen et al. 2007;

¹ 2.2 physicians per 1,000 population in 2008, compared to the OECD median of 3.2 per 1,000 (OECD 2009).

² 1.04 per 1,000 population in 2008 versus the OECD mean and median of 0.88 and 0.73, US 0.96, Australia 1.43, Austria 1.53, Belgium 2.01, France 1.64, Germany 1.48 (OECD 2009).

Schoen et al. 2008; Canadian Institute for Health Information 2009, Schoen et al. 2010). For example, 13% say they have difficulty accessing routine or ongoing care (Canadian Institute for Health Information 2009) and 33% report that they waited six or more days for a doctor's appointment the last time they were sick or needed care (Schoen et al. 2010). Although obtaining access may be arduous, 76% of Canadian adults rate the quality of care they received from family physicians as excellent or very good (Canadian Institute for Health Information 2009).

Canadians are entitled to choose their own family physician and, because the Canada Health Act prohibits user charges for insured services, medically necessary physician services are free at the point of care. Although direct access to specialists is not prohibited, family physician referral to specialist care is the norm in Canada and many provinces discourage direct access to specialists by paying lower fees for non-referred consultations. The extent and type of arrangements for after-hours care vary regionally and in traditional fee-for-service practice are at the discretion of the physician.

The Climate for Primary Health Care Reform

During the 1980s and 90s, primary health care reform in Canada was characterized by false starts, myriad small scale pilot and demonstration projects, futile advocacy of fundamental system-wide change and failure to embrace the alternative strategy of progressive incremental change (Hutchison, Abelson and Lavis 2001). In the 1990s, contending with the fiscal fallout from the recession in the early part of the decade, governments cut or constrained health care spending, made only paltry investments in primary health care innovation, and failed to address the conspicuous lack of primary health care infrastructure in the areas of information technology, administration, staffing and quality improvement. During this period, innovations in the

organization, funding and delivery of primary health care were at the periphery of the system rather than at its core, although some of those initiatives laid the groundwork for later advances.

While Canada's primary health care system was stagnating, many other countries were moving forward with systemic primary care reform. As a consequence, Canada began to lag behind other high-income countries on many primary care access and quality indicators. For example, in 2001, 41% of adult Canadians said they had difficulty getting care on nights and weekends (tied with the United States for highest among the five countries surveyed) and 26% reported that access to care was worse than two years before (highest among the five countries) (Blendon et al. 2002). In a 2000 survey, Canadian family physicians were more concerned than those in other countries surveyed³ about primary care quality: 59% thought their ability to provide quality care had decreased in the past five years and 61% were "very concerned" that quality of care would decline in the future (Blendon et al. 2001). Even in the context of universal coverage, years of constrained funding and inattention from policy makers had clearly taken a toll on Canadians' ability to access primary health care services.

In the early 2000s, a new policy environment emerged as policy makers in several provinces appeared to absorb the lessons of the past that:

- Policy legacies and entrenched professional and public values limit the possibilities for radical "big bang" reform.
- There is no single "right" model for the funding, organization and delivery of primary health care. Different models have different strengths and weaknesses and may perform better or worse in different contexts and with different target populations. Most are capable of evolutionary development. Some models are potentially complementary.

³ Australia, Canada, New Zealand, the United Kingdom and the United States

- No single funding or payment method holds the key to primary health care transformation. Changing physician payment methods may facilitate but does not ensure change in the organization and delivery of care. Conversely, organizational change and improved quality of care are achievable in the context of varied arrangements for physician remuneration.
 - Primary health care renewal demands major investments in system transformation and infrastructure (appropriate premises and staffing, information management systems, and tools and facilitation to support coordination of care and quality improvement).
- (Hutchison, Abelson and Lavis 2001, Hutchison 2008)

The aims of this paper are to describe the context, extent and main characteristics of primary health care reform in Canada during the past decade. We outline the dominant primary health care reform strategy, the goals for reform, the available policy levers, and the provincial/territorial primary health care policy initiatives that have been implemented since 2000 either at a system level or on a more limited scale to gain experience prior to system-wide spread. We then summarize major achievements, describe interprovincial variation in policy innovation and identify key reform challenges. Finally, we consider the transformative potential of the reform strategies that have been adopted in relation to the goals for primary health care identified by Canadian and international policy makers.

Methods

This policy analysis draws on descriptive information from published and grey literature, government and government agency Web sites, and a series of semi-structured interviews with informed observers of primary health care in Canada. We conducted interviews with informants from only those provinces and territories for which we lacked sufficient information from other

sources to accurately portray their reform initiatives and policy environment: Nova Scotia, New Brunswick, Newfoundland and Labrador, Northwest Territories, Manitoba and Alberta. Potential informants were selected, based on consensus among the investigators, from individuals with detailed knowledge of past and current reforms in their respective jurisdictions, and who were not affiliated with either the provincial/territorial government or provider associations. We initially contacted potential informants via email, explaining the research project and goals of the interview and requesting an appointment. The interviewers made at least four attempts to reach each potential participant. The interviewers used a script developed by the authors to conduct one-on-one, semi-structured telephone interviews that included four questions on the historical background and current climate, four questions on the general approach to reform and key policy levers and two concluding questions on the changes in the policy environment over time and lessons learned. The interviewers obtained verbal consent from participants to audiotape all interviews. Interviews were completed with five informants between September 2009 and October 2009. One informant provided information about two provinces.

For the purpose of this paper, we use primary health care as an inclusive term that covers a spectrum of activities from first contact episodic care to care that is person-centered, comprehensive and sustained over time and may include population-based approaches (as in community health centers) to health promotion, community development and the social determinants of health, acknowledging that most primary health care in Canada is provided by physicians working in a family practice model of care.

Results

A New Policy Environment

An improved fiscal climate beginning in the late 1990s and increased federal health care funding (some earmarked for primary health care) made investments in primary health care easier for provincial governments to contemplate. In 2000, in keeping with the recommendations of various federal and provincial reports, the First Ministers (Prime Minister of Canada and the provincial and territorial premiers) established an \$800 million Primary Health Care Transition Fund to accelerate primary health care reform. The Fund was used to support pilot and demonstration projects, and research at the provincial/territorial and national levels.

The 2003 First Ministers Health Accord included a \$16 billion federal investment in a Health Reform Fund targeted to primary health care, home care and catastrophic drug coverage. At their meeting on the Future of Health Care in 2004, the First Ministers established a goal of 50% of Canadians having 24/7 access to multidisciplinary primary health care teams by 2011 and agreed to “accelerate the development and implementation of the electronic health record” (First Ministers’ Meeting on the Future of Health Care 2004). The primary care reform agenda was given further impetus by the findings and recommendations of two national reviews of health care in Canada (Commission on the Future of Health Care in Canada 2002; Senate Standing Committee on Social Affairs, Science and Technology 2002), growing political and public concern about health care access and quality, mounting dissatisfaction among family physicians with their working conditions and their ability to provide high quality care (e.g., Woodward et al. 2001; Cohen et al. 2001; Blendon et al. 2001; Commonwealth Fund 2000) and declining interest among medical school graduates in family medicine (Canadian Institute for Health Information 2001). These concerns were both fuelled and reflected by the media, with particular attention given to emergency room “overcrowding” which was increasingly attributed to patients’ having difficulty accessing family physicians. In this climate, organized medicine in

several provinces, having previously adopted a cautious, if not hostile, attitude to primary health care reform, began to negotiate the nature and terms of that reform in the early 2000s.

Reform Strategy

Given the formidable policy legacy in Canada of physician autonomy and self-management, provincial and territorial governments have, without exception, adopted a voluntary approach to physician engagement in incremental reform. In those jurisdictions where primary health care transformation has been most far-reaching (Ontario, Alberta, British Columbia and Quebec), major initiatives have been negotiated with the provincial medical association that serves as the physicians' bargaining agent. Key policy innovations have often been embedded in a formal agreement between the medical association and the government or health ministry. Most of the evolving provincial/territorial primary health care systems encompass a diversity of funding, physician payment and organizational models.

Goals and Objectives for Primary Health Care

While the goals and objectives for primary health care and its reform vary among provincial and territorial health care systems, there are recurring themes: improved access to primary care services; improved coordination and integration of care; expansion of team-based approaches to clinical care; improved quality/appropriateness of care, with a focus on prevention and the management of chronic and complex illness; greater emphasis on patient engagement/self-management and self-care; and implementation and use of electronic medical records and information management systems. Less consistently identified objectives include improved patient and provider experience, delivery of a defined set of services to a defined population, adoption of a population-based approach to planning and delivering care, community/public participation in governance and decision-making, building capacity for quality improvement,

responsiveness to patient and community needs, improved health equity and ensuring health system accountability, efficiency and sustainability. These objectives of Canadian primary health care reform mirror the Institute of Medicine's six aims for improvement: safety, effectiveness, efficiency, person centeredness, timeliness and equity, with a heavy emphasis on timeliness and effectiveness and on cost control rather than efficiency (Institute of Medicine 2001).

Policy Levers

Provincial and territorial governments are the principal funders of primary health care services and this provides them with their most potent policy lever. Desired innovations in the organization and delivery of care are often linked with the provision of funding or resources that enhance primary care providers' (especially physicians') income, quality of working life or professional satisfaction. Other policy levers include: contractual agreements with providers; funding of health professional training programs that determine the number and types of health human resources available to provide primary health care; development or modification of governance structures; and regulation and legislation. The latter tend to be used rarely to advance primary health care reform, except in relation to the scope of practice of regulated primary health care professionals.

Key Initiatives

We identified several primary health care reform initiatives that have been implemented broadly in one or more jurisdictions to advance the policy objectives summarized above. These include inter-professional primary health care teams, group practices and networks, patient enrolment with a primary care provider, financial incentives and blended payment schemes, primary health care governance, expansion of the primary health care provider pool, implementation of electronic medical records and quality improvement training and support.

Inter-professional primary health care teams

Although inter-professional primary health care teams are being introduced across the country, only a few provinces, notably Alberta, Quebec and Ontario, have made substantial progress toward the First Ministers' goal of providing 50% of Canadians with access to multidisciplinary primary health care teams by 2011.

In Alberta, three-quarters of the province's family physicians participate in Primary Care Networks that were introduced in 2005 through an agreement between the Alberta Medical Association, the provincial health ministry and Alberta's regional health authorities. Primary care networks are physician-led and can be single- or, more often, multi-site. The Primary Care Network model allows for wide local variation in the organization and delivery of services. As of January 2011, there were 39 Primary Care Networks in operation with a physician complement that varies from three to 273, averaging 58 physicians per network, and a variable complement of other health professionals that may include nurses, dietitians, social workers, mental health workers and pharmacists. Given the large size and organizational diversity of the networks, the extent to which care is team-based at the practice level is highly variable. In an evaluation of team effectiveness in 10 Primary Care Network teams using the Team Effectiveness Tool (TET), eight teams had mean scores in the range indicating "no significant concerns", one of which had a mean score in the "effective team" range according to the TET guide (Saskatchewan Health 2002, Drew et al. 2010). Low scores on the "team partnership" subscale pointed to that dimension of team effectiveness as an area of weakness (Drew et al. 2010).

In Quebec, 219 Family Medicine Groups (Groupes de médecine de famille), involving 3177 family physicians (37% of the province's family medicine workforce), have been established since 2002. The Ministry of Health and Social Services aims to accredit 300 groups, which are

expected to cover 75% of Quebec's population. Family Medicine Groups consist of six to 10 physicians who work together with nurses and sometimes other providers to offer primary care services to registered patients on the basis of contractual agreements with the provincial government. A second private clinic model, the Network Clinic, has been established in many regions through contractual agreements with regional health authorities. Network Clinics have an enhanced interdisciplinary team and complement Family Medicine Groups by providing extended hours of service and on-site access to diagnostic services (Pineault et al 2009). Family Medicine Groups are linked with Centres de santé et de services sociaux (CSSS), which represent a merger of institutions at the local level (acute care, long-term care and community health centers), mostly through their Centres locaux de services communautaires (CLSCs), community-governed, interdisciplinary primary health care organizations that provide primary health and social services to geographically-defined populations, as part of the CSSS.⁴

Early evidence suggests superior performance of Quebec's Family Medicine Groups compared to other primary health care models (Beaulieu et al. 2006; Pineault et al. 2008; Haggerty et al. 2008, Provost et al. 2010, Tourigny et al. 2010). For example, Beaulieu and colleagues (2006) found that the integration of nurses and a linked clinical care protocol in Family Medicine Groups had a positive impact on accessibility, coordination and comprehensiveness of care and patient knowledge. In a study of the provision of clinical preventive services, Provost and colleagues found that rates of preventive care delivery were higher in Family Medicine Groups and CLSCs than in traditional fee-for-service practices.

In Ontario, Community Health Centres and Family Health Teams are the chief inter-professional primary health care models. Together they now include 21% of family physicians

⁴ Introduced in 1972, CLSCs were intended to be the dominant or exclusive model of primary health care in Quebec. However, enduring opposition to the model by organized medicine consigned CLSCs to minority status; the proportion of Quebec's family physicians working in CLSCs has never exceeded 20% (Levesque et al. 2007).

practicing in the province. The total number of family physicians working in inter-professional teams increased from 176 in 2002 to more than 2500 in early 2011.

The first Community Health Centres were established in 1979. In 2004-2005, the provincial government announced its intention to create 21 new Community Health Centres and 28 satellite clinics. Forty-eight new centers and satellites are now operational, bringing the number of Community Health Centres (not including satellites) to 73. Community Health Centres employ more than 300 physicians, 290 nurse practitioners, over 1700 other clinical, health promotion and community development professionals, and more than 800 administrative and management personnel.

In a multi-faceted study that assessed four organizational/physician payment models in Ontario during 2005-2006, Community Health Centres performed better than fee-for-service practices and two capitation-based models in the domains of chronic disease management, health promotion and community orientation (Russell et al. 2009, Hogg et al. 2009, Muldoon et al. 2010) but were the least efficient model (Milliken et al. 2011).

Family Health Teams are the provincial government's flagship initiative in primary health care renewal and are the first explicitly inter-professional primary health care model introduced there in three decades. One hundred sixty-two are now operational and 38 are under development. They include more than 2100 family physicians and approximately 1400 other primary health care professionals, most commonly nurses, nurse practitioners, dietitians, mental health workers, social workers, pharmacists and health educators. Nurse Practitioner-led Clinics are similar in concept to Family Health Teams except that the ratio of family physicians to nurse practitioners is much lower and physicians function mainly in a consulting capacity. Four Nurse Practitioner-led Clinics have been established and 22 are in various stages of development. No

studies of Family Health Teams' performance have been published to date. A multi-year evaluation of the Family Health Team initiative, commissioned by the Ontario Ministry of Health and Long-Term Care, is in its third year.

Smaller scale initiatives to create inter-professional primary health care teams, some physician-led and others community-governed, are underway in the remaining provinces and territories. Saskatchewan, for example, has established 30 "central" primary health care teams, usually with three to 10 physicians (not necessarily co-located) and one to two nurse practitioners per team. Some of these "central teams" are linked to smaller satellite teams which, at a minimum, are staffed by a nurse practitioner and a visiting physician from the central team. Most teams are based in rural or northern regions.

Group practices and networks

The encouragement of group practice and the support of primary health care networks have been a key part of the reform strategies described above in Quebec, Alberta and Ontario. Groups and networks provide critical mass to enable quality improvement work, 24/7 access to care and economies of scale. Ontario has created an alphabet soup of primary health care organizational models (referred to as Patient Enrolment Models), most of which require participating physicians to be part of a group practice or practice network. Such models now encompass two-thirds of Ontario's family physicians. Practice networks in Ontario, as elsewhere, can include both solo and group practices.

Patient enrolment with a primary care provider

Formal patient enrolment with a primary care physician or group is an integral feature of primary care reform only in Quebec and Ontario. In both cases, patient enrolment is voluntary. More than half of the Quebec population is currently registered with a family physician. Patient

enrolment with a primary care physician in Ontario has grown from 600,000 in 2002 to 9.5 million in February 2011, 72% of the provincial population.

Financial incentives and blended payment schemes

During the past decade, primary health care reform initiatives throughout Canada have included a shift from unitary physician payment methods (mainly fee-for-service, but also capitation or salary) to payment arrangements that include blends of fee-for-service, capitation, salary or payments per session (e.g., per half day), and targeted payments designed to encourage or reward the provision of priority services. Nationally, the proportion of family physicians who receive 90% or more of their professional income from fee-for-service payments declined from 58.7% in 2002 to 48.3% in 2007 (Canadian Medical Association 2002; College of Family Physicians of Canada et al. 2007b). The shift has been most far-reaching in Alberta, Quebec and Ontario in association with the development of Primary Care Networks, Family Medicine Groups and patient enrolment models respectively and in British Columbia through a program of targeted incentive payments known as the Full Service Family Practice Incentive Program.

Alberta's Primary Care Network physicians receive base remuneration (usually fee-for-service) plus targeted payments for after-hours coverage and other priority activities. In addition, Primary Care Networks receive supplementary funding on a per-patient basis to support enhanced staffing (including administration), premises and equipment, chronic disease management, expanded office hours and 24/7 access to appropriate primary care.

Quebec's Family Medicine Groups receive a small annual fee for each registered patient, supplemental fees for registered patients from vulnerable populations and payment for time spent attending meetings and completing paperwork. Funding is also available to support staffing, premises, and information technology. However, the bulk of physician remuneration in Family

Medicine Groups and Network Clinics continues to come from fee-for-service payments (Pineault et al. 2008)

The two-thirds of Ontario's family physicians who practice in a Patient Enrolment Model are remunerated through various blends of capitation, fee-for service, and targeted payments. Capitation is the principal component of payment models that include over 50% of Patient Enrolment Model physicians. Fee-for-service is the main element in payment arrangements that account for another 45%. The rest receive salary-based blended payments. All payment models include special fees or premiums (which vary across models) for providing priority services such as care of seniors, enrolment of new patients and after hours care. Most payment models include fees for preventive care outreach, pay-for-performance payments for preventive screening and immunizations and bonus payments for the provision of certain services (obstetrical deliveries, hospital services, palliative care, prenatal care, and care of patients with serious mental illness) above threshold levels.

A growing, but still limited, body of evidence suggests that the payment models and incentives introduced in Ontario are influencing preventive care delivery, chronic disease management, physician productivity and access to care. A study during the mid 1990s of the provision of preventive care to unannounced standardized patients by primary care physicians in south central Ontario found that salary (Community Health Centre) or capitation (Health Service Organization) (vs. fee-for-service) payment method was positively associated with the provision of evidence-based preventive care (Hutchison et al. 1998). An econometric study by investigators from the McMaster University Centre for Health Economics and Policy Analysis assessed physician responses to financial incentives included in primary care physician payment arrangements, including preventive care pay-for-performance bonuses and special payments for

providing levels of priority services (e.g., obstetrical deliveries, prenatal care, hospital care, palliative care, in-office technical procedures, home visits and care of patients with serious mental illness) above specified thresholds. Using a controlled before-after design, the study found that the pay-for-performance incentives led to an increase over baseline levels in the provision of four of five preventive services: 5.1% for seniors' influenza vaccination; 7% for Pap smears, 2.8% for mammography and 56.7% for colorectal cancer screening (Hurley et al. 2011). There was no detectable response to the special payments for providing specified levels of priority services.

Tu and colleagues (2009) assessed hypertension management during 2004-2005 among Ontario physicians working in salaried (Community Health Centre), capitation-based blended payment (Primary Care Network) and traditional fee-for-service practices. After controlling for patient socio-demographic factors and co-morbid conditions, treatment and control rates were higher in the Primary Care Network (capitation model) practices which were more likely than the fee-for-service practices to employ nurses and nurse practitioners.

Kantarevic and colleagues (2010) found that Family Health Group (fee-for-service-based blended payment model) physicians provide more services and visits, see more patients, make fewer referrals and treat more complex patients than traditional fee-for-service physicians, suggesting that the incentives included in this model increase physician productivity. Effects on quality of care were not assessed.

In a study of after hours care in a single northern Ontario community, Howard and colleagues (2008) observed a lower six month prevalence of emergency department use among patients of Family Health Network physicians (capitation-based blended payment model) compared to patients of physicians in Family Health Groups (fee-for-service-based blended

payment model) and traditional fee-for-service practices. In a recent study of after-hours telephone information provided by Ontario family physicians, Howard and Randall (2009) found that physicians participating in Patient Enrolment Models, all of which require and incentivize physicians to provide after-hours care to enrolled patients, were more likely than physicians in conventional fee-for-service practice to suggest that patients use an after hours clinic operated by the group or network with which the physician was affiliated (32 vs. 10%) and were less likely to provide no instructions (11 vs. 26%) or to only suggest using an emergency department or urgent care centre or calling 911 (13 vs. 24%).

British Columbia's targeted incentive program, introduced in 2002-3, provides incentive payments to family physicians for chronic disease management, obstetrical care, complex care, mental health care, end of life care and case conferencing within the context of fee-for-service payment (Cavers et al 2010). Manitoba has initiated a demonstration project that supports fee-for-service family physician groups to establish inter-professional collaborative teams and integrate electronic medical records into day-to-day patient management. The initiative includes a pay-for-performance scheme based on 27 clinical process indicators.

Beginning in 2001, the Northwest Territories government negotiated and implemented a wholesale transition from fee-for service to salary remuneration of family physicians. By 2009, 95% of family physicians were on a salary-based contract that includes a range of benefits including sick leave, maternity leave and recruitment and retention bonuses.

Primary health care governance

The predominance of independent, physician owned and managed solo and small group family practices has inhibited the development of regional or local governance mechanisms for primary health care. In most communities and health regions, primary health care providers and

stakeholders have no collective voice and there are no means for primary health care providers to assume collective responsibility and be held accountable for addressing patient and population needs. However, the current wave of reform does provide examples of primary health care governance initiatives, sometimes aligned with other reform elements such as funding mechanisms and organizational arrangements.

In Quebec, Family Medicine Groups have been associated from the outset with a set of contractual agreements between accredited clinics and other health institutions at the local, regional and provincial level. These contractual agreements aim to formalize the collaboration and sharing of resources among and within primary care clinics. In addition, recent years have seen the emergence of regional and local departments of family medicine in Quebec (*Département régional de médecine générale*). These departments, composed of elected representatives from each local area's pool of general practitioners, have a mandate to coordinate the supply and planning of primary care services and work in close collaboration with regional health authorities and local health centers. For example, these departments control the entry of new general practitioners into the area and determine where newcomers will perform their mandatory emergency room or long-term care service requirements. As such, they represent one of the first attempts at integrating general practitioners into the governance of the health system in Quebec.

British Columbia has supported the development of "Divisions of Family Practice" in 18 communities and plans, by 2012, to extend this support to any community or region in the province where family physicians wish to establish a Division. The Divisions are local organizations of family physicians who are prepared to work together at the community level to improve clinical practice, offer comprehensive patient services and participate in health service

decision-making in partnership with their regional health authority⁵ and the Ministry of Health Services. The initiative is sponsored and funded by the General Practice Service Committee, a joint committee of the British Columbia Ministry of Health Services and the British Columbia Medical Association. The Divisions are expected to work with their health authority and local community agencies to identify and address gaps in the delivery of health services at the community level. Membership in the Divisions is voluntary but a Division must include the majority of family physicians in the community.

Expansion of the primary health care provider pool

In response to public concerns about access to primary health care and pressure from professional associations and advocacy groups, provincial and territorial governments have moved during the last decade to increase the numbers and types of primary health care providers. Expansion of medical school spaces and family medicine residency positions has resulted in a 9% increase in the number of family physicians per 100,000 Canadians from 94 in 2000 to 103 in 2009 (Canadian Institute for Health Information 2010a). Most provinces and territories have introduced or expanded training and/or employment opportunities for midwives and nurse practitioners. Ontario has recently established a university-based training program for physician assistants.

Midwifery is now a legal and regulated profession in eight provinces and one territory: Ontario (1994), British Columbia (1998), Alberta (1998), Quebec (1999), Manitoba (2000), Northwest Territories (2005), Saskatchewan (2008), Nova Scotia (2009) and New Brunswick (2010). In Ontario, the first province to recognize midwifery and fund midwifery services, the

⁵ Five regional health authorities govern, plan and coordinate health care services within their respective regions within the context of province-wide goals, standards and performance agreements established by the Ministry of Health.

number of midwives has grown by 150% since 2002 to over 500 and midwives now attend 10% of Ontario births.

Nurse practitioners are licensed in every Canadian province and territory. The number of licensed nurse practitioners in Canada, most of whom are primary health care nurse practitioners (Donald et al. 2010), more than doubled from 800 to 1990 between 2004 and 2008 (Canadian Institute for Health Information 2010b, Canadian Institute for Health Information 2010c). In 2008, more than 50% of Canadian nurse practitioners were based in Ontario (Canadian Institute for Health Information 2010b). Between 1999 and 2010, the number of primary health care nurse practitioners licensed in Ontario increased ten-fold from 130 to 1,362 (College of Nurses of Ontario 2008, College of Nurses of Ontario 2011). In comparison, the province of Quebec still has less than 100 nurse practitioners. In a study of chronic disease management in Ontario primary health care practices (Russell et al. 2009), a high overall score for processes of care was associated with the presence of a nurse practitioner, independent of organizational and payment model.

Perhaps not surprisingly given population growth, interprovincial variability in the introduction of non-physician primary health care providers and the recency of many of these initiatives, expansion of the provider pool has yet to be reflected in increased access to care at the national level. For example, the percentage of adult Canadians with no regular place of care increased from 9% to 14% between the 2007 and 2010 Commonwealth Fund International Health Policy Surveys (Schoen et al. 2007, Commonwealth Fund 2010). While the percentage who were seen the same day the last time they were sick increased from 22% to 28%, the percentage waiting six or more days to be seen also increased, from 30% to 32%. The percentage

that found it somewhat or very difficult to get care on nights and weekends without going to the emergency room declined only marginally from 65% to 63%.

Implementation of electronic medical records

Use of electronic medical records by family physicians varies widely among the provinces (from 12.8% in Prince Edward Island to 56% in Alberta as of 2007) (College of Family Physicians of Canada et al. 2007c). Use of paper-only charts varied across provinces from 37% (Alberta) to 83% (Prince Edward Island) and exclusive use of electronic records varied from 0% (Prince Edward Island) to 21.7% (Alberta). In large measure, this variation reflects the extent to which provinces have subsidized the acquisition, implementation and ongoing use of electronic records. Since 2007, government support for the implementation of electronic medical records has accelerated in some provinces. For example, the Ontario government is extending subsidies for the adoption and continued use of electronic medical records, previously available only to physicians working in specific primary care reform models, to all primary care physicians. In 2010, the federal government made \$380M available to support the implementation of electronic medical records by community-based physicians and nurse practitioners. In the Commonwealth Fund's International Health Policy Surveys of primary care physicians, the use of electronic medical records reported by Canadian respondents increased from 23% to 37% between 2006 and 2009 (Schoen et al. 2006, Schoen et al. 2009).

Quality improvement training and support

Over the last several years, sometimes in partnership with the provincial medical association, governments and health ministries in British Columbia, Alberta, Saskatchewan, and Ontario have attempted to address the quality gap between current and achievable primary health care performance by mounting quality improvement learning collaboratives based on the

Institute for Healthcare Improvement *Breakthrough Series* model (Institute for Healthcare Improvement 2003).

Primary health care quality improvement in British Columbia is funded and organized through the Practice Support Program, a joint initiative of the British Columbia Medical Association Section of General Practice, the Ministry of Health Services and the regional health authorities. The program supports physicians and their office staff to plan and implement enhancements in clinical care and practice management through a series of learning sessions and action periods with the assistance of practice support teams consisting of facilitators and peer champions. Practice teams comprising a physician and a medical office assistant can work on one or more modules that address clinical workflow redesign (Chronic Disease Management, Patient Self-Management, Mental Health, End-of-Life Care), practice management redesign (Advanced Access, Group Medical Visits) or use of information technology (Chronic Disease Management Toolkit) (MacCarthy et al. 2009, Weinerman et al. 2011). As of March 2009, approximately one-third of British Columbia's family physicians had participated in the Practice Support Program (Cavers et al. 2010).

Alberta's Access, Improvement and Measures (AIM) collaboratives guide practice teams (physicians, health professionals and office staff) through a facilitated learning process composed of six structured learning sessions and intervening action periods that sequentially address patient access, office efficiency and clinical care improvement over a 14 month period. Since 2005, improvement teams from 137 primary health care clinics, representing about one-third of the province's family physicians, have participated in these collaboratives (Alberta AIM 2010).

Between 2005 and 2009, more than a quarter of Saskatchewan family physicians participated in chronic disease management collaboratives that focused on diabetes and coronary artery disease. Fifty-four primary care practices (47 family physicians and 170 other providers) are participating in another large scale collaborative launched in November 2009, focused on depression, chronic obstructive pulmonary disease and office redesign.

In 2007, the Ontario Ministry of Health and Long-Term Care created the Quality Management Collaborative (since renamed the Quality Improvement and Innovation Partnership (QIIP)) to help Family Health Teams navigate the transition to a new team-based model of primary health care delivery. In 2009 QIIP became an independent not-for-profit organization, still funded by the ministry of health, with a broadened mandate to support sustained quality improvement across the primary health care sector. QIIP has completed three learning collaboratives with 122 interdisciplinary teams from Family Health Teams and Community Health Centres. Each team focused its quality improvement efforts on diabetes care, colorectal cancer screening and office practice redesign (access and efficiency) and were supported in their quality improvement work by one of 14 full-time-equivalent quality improvement coaches. In 2010, QIIP launched a Learning Community that combines virtual and face-to-face learning to support the acquisition and application of quality improvement methods in primary health care. With the support of the quality improvement coaches, 127 interdisciplinary primary health care teams are participating in one or more of six Action Groups [diabetes, hypertension, asthma, chronic obstructive pulmonary disease, integrated cancer screening and office practice redesign (access and efficiency)] in Wave 1 of the Learning Community. Ninety-two teams are participating in Wave 2 which began in early 2011 with a focus on office practice redesign.

Summary of Major Achievements Since 2000

- Inter-professional primary health care teams have been established in all provinces and territories and are becoming widespread in Ontario, Alberta and Quebec. These teams are designed to improve access to care, continuity and coordination of health care services, and, like Patient-Centered Medical Homes, are viewed as key to delivering high-quality primary health care.
- Formal patient enrolment with a primary care physician has been broadly implemented in two provinces, Quebec (58% of the population) and Ontario (72% of the population), providing the foundation for a pro-active, population-based approach to preventive care and chronic disease management and laying the groundwork for systematic practice-level performance measurement and quality improvement.
- The number of primary care physicians participating in blended payment arrangements that include combinations of fee-for-service, capitation, sessional payments, salary, infrastructure funding and targeted payments for priority activities or performance levels has increased dramatically, if unevenly, across the country - with a corresponding decrease in pure fee-for-service arrangements. Blended payment arrangements allow health care funders to align payments with health system goals, balance the perverse incentives inherent in individual payment methods (e.g., over-servicing in fee-for-service, skimping and cream-skimming in capitation and shirking in salary), support the development of appropriate infrastructure (e.g., information management systems, accessible premises, quality improvement mechanisms) and encourage the provision of priority services, processes and outcomes of care.
- Training programs for family physicians, midwives and nurse practitioners have been substantially expanded. This, together with the development of inter-professional health care teams and quality improvement work focused on system redesign at the practice level should

improve timely access to primary health care and has the potential to reduce downstream health care utilization and costs.

- Organizations with a mandate to support primary health care improvement and innovation have been established and funded by ministries of health in several provinces. Embedding quality improvement in the fabric of primary health care practice is essential to the creation of a high performing health system.

Variation among Provinces and Territories

The accompanying table shows the variability among Canada's provincial and territorial health care systems in system-level implementation of the primary health care initiatives described above. "System-level initiatives" are those that have been widely implemented within the jurisdiction or have been implemented on a more limited basis in a jurisdiction where there is a policy commitment to later broad-scale implementation and a policy environment that appears conducive to system-wide spread. Major reform initiatives have been pursued most aggressively in Ontario, Alberta and Quebec, followed closely by British Columbia, with fewer system-level initiatives in the remaining provinces and territories. There is also considerable variability in the nature of initiatives across jurisdictions. For example, inter-professional primary health care teams include a broad array of providers in Ontario, whereas those in Quebec are largely confined to physicians and nurses. Similarly, the character of innovative payment and incentive schemes differs substantially from one jurisdiction to another.

Discussion

Challenges

System complexity

An incremental and pluralistic approach to primary health care renewal runs the risk of creating a lack of system coherence, high administrative and transaction costs associated with multiple funding and organizational models and a change process that can become bogged down in the details of implementing and coordinating a variety of reforms (Hutchison, Abelson and Lavis 2001). However, in a policy environment constrained by policy legacies that produce conditions unfavorable to sweeping health system change, it is likely to be the only feasible strategy for achieving system transformation (Hutchison, Abelson and Lavis 2001). It has also been suggested that an approach to primary health care renewal based on working incrementally toward a desired set of system characteristics can foster change that is both fundamental and coherent (Commissaire à la santé et au bien-être du Québec 2009).

Physician engagement

Given the “founding bargain” with the medical profession on which Canadian Medicare is based, Canadian primary care physicians have been hesitant to embrace any proposed organizational or payment model that could be seen as threatening their professional autonomy, particularly when the reforms appear to be motivated by a desire for cost containment. Several provincial governments have addressed this reticence by negotiating primary health care reform initiatives with the provincial medical association representing family physicians on the basis of voluntary participation and pluralism of organizational and remuneration models. This approach recognizes that, in the Canadian context, system-level innovation in primary health care is only possible with the support or, at a minimum, the acquiescence, of organized medicine, and that support is most likely to be achieved if the medical association is present at the policy table. This strategy has allowed large numbers of primary care physicians to view new organizational and remuneration models as opportunities to enhance their effectiveness, the quality of their working

lives and their income. However, this has also limited the content of reforms to generally agreed-upon changes whereas more profound and innovative transformations have often faced the opposition of professional associations and made much slower progress.

Teamwork

The transition to team-based care is a challenging one, especially for physicians who are socialized and accustomed to being the undisputed team leader. In an interdisciplinary environment, participation of other professional and administrative staff in policy and management decisions is no longer discretionary. The tension is often most acute between nurse practitioners and physicians. Nurse practitioners are trained and licensed as autonomous professionals (in contrast to registered nurses and physician assistants) and see themselves as “equal members of the health care team”. However, policy legacies (physician control of their work environment) and institutional arrangements (physician ownership and governance of group practices and networks) often conspire against these expectations. The substantial overlap in scope of practice between physicians and nurse practitioners demands a clear-headed and respectful approach to determining mutual roles and responsibilities.

Effective implementation of interdisciplinary primary health care models will require that change management support is available to providers as they make the transition.

Investment requirements

The costs of primary health care renewal are substantial. Where it has been most successful, “buying system change” has entailed increases in physician incomes and significant investments in primary health care infrastructure. Given that the transformation is incomplete, the federal and provincial governments will be challenged to sustain the required level of investment in the face of the recent economic recession and the mounting deficits that are being incurred to combat it.

Although many provincial and territorial governments have made sizeable investments in primary health care information technology, implementation of electronic medical records is limited and most currently approved systems have frustratingly inadequate performance measurement, disease management support and registry capability. Among Canadian respondents to the 2009 Commonwealth Fund International Health Policy Survey of Primary Care Physicians, only 37% reported having a computerized process to generate lists of patients by diagnosis (second lowest among the 11 countries included in the survey) and 22% said they had a computerized process to generate lists of patients who are overdue for tests or preventive care (lowest among the countries studied) (Schoen et al. 2009). Only 14% of Canadian family physicians reported using nine or more of 14 electronic information functions – lowest among the 11 countries and in striking contrast to the United Kingdom, Australia and New Zealand where 89-92% of primary care physicians use nine or more functions. Arguably, investment and activity at both the provincial/territorial and federal levels have focused excessively on designing the overall architecture for health information technology and too little on putting clinically useful electronic medical records into the hands of health care providers.

Equity

Despite universal insurance coverage and the absence of user charges for physician and most diagnostic services in Canada, research evidence points to persisting inequities in access to care. After needs for care are taken into account, being poor, poorly educated, or both impairs overall access to specialist and (possibly) family physician services, to preventive care and to services for specific health problems (e.g., cardiovascular and mental health care) (Hutchison 2007). In a recent population-based study in Ontario (Glazier et al. 2009), better educated individuals were more likely to receive specialist services, to have more frequent specialist visits and to bypass

family physicians to obtain specialist care. Among respondents to a 2003 national population survey, low income was independently associated with self-reported unmet health care need (Sibley and Glazier 2009). With minor exceptions (e.g., expansion of Community Health Centres in Ontario), primary health care reforms in Canada have failed to address this issue. “Healthcare providers, planners, managers and policy makers need information (not to mention resources and commitment) at the practice, local, regional, provincial/territorial and pan-Canadian levels so that targeted programs to address disparities can be developed and implemented” (Hutchison 2008).

Evidence-informed decision making

Effective health system quality improvement requires both ongoing performance measurement and rigorous and timely evaluation of health care policy, management and delivery innovations. Most provinces and territories are moving in this direction but the process is incomplete. Although commissioned evaluations of major initiatives are becoming increasingly common, they are often begun too late to allow for the collection of baseline data or to provide useful feedback on the implementation process. Evaluation results are not consistently made public.

To guide primary health care system planning and management, a suite of relevant health system performance indicators needs to be identified and operationalized for use at the local, regional, provincial and national level. Recently, various provincial health quality councils (Ontario Health Quality Council, Health Quality Council of Alberta and Quebec’s Commissaire à la santé et au bien-être) have focused some of their work on assessing the performance of primary care and its contribution to the overall performance of health care systems. These analyses have highlighted the lack of capacity for Canadian primary care clinicians to assess the

clinical impact of the care they provide and to compare their own performance with their counterparts in other countries further advanced in the primary care reform process.

The lively pace and variability of primary health care reform initiatives in several Canadian provinces create promising opportunities to evaluate their impacts within and across jurisdictions. However, the absence of good baseline data, the lack of an agreed upon and applied set of primary health care performance measures, the voluntary nature of patient and provider participation and the confounding of primary care physician payment methods and organizational forms make evaluation of primary health care transformation challenging.

Transformative Potential

During the last decade, Canada's provinces and territories have, to varying degrees, addressed primary health care reform through initiatives that focus on strengthening primary health care infrastructure and establishing funding and payment mechanisms that support performance improvement. These policy initiatives reflect the recommendations of two national reviews of health care in Canada completed in 2002, the shared commitments to primary health care renewal by the Prime Minister of Canada and the provincial and territorial premiers in 2000, 2003 and 2004, and the declared primary health care goals of individual provincial/territorial governments. They also align with a recent report from the Canadian Academy of Health Sciences that envisions an integrated healthcare system that will:

- have primary care practices that are responsible for a defined population;
- be person focused (and family or friend-caregiver-focused);
- provide comprehensive services using inter-professional teams;
- link with other sectors in health and social care; and
- be accountable for outcomes (Nasmith et al. 2010).

This approach to primary health care improvement is consistent with the Institute of Medicine's insistence in *Crossing the Quality Chasm* that health care that is safe, effective, patient centered, timely, efficient and equitable requires a concerted focus on system redesign (Institute of Medicine 2001). The extent to which the structural reforms that have been successfully implemented since 2000 at a system level in several provinces improve processes and outcomes of care will become evident over the current decade.

Conclusion

A culture change in primary health care is gathering force in several Canadian provinces. The general shape of transformed primary health care is becoming clear: inter-professional team-based care, multi-component funding and payment arrangements, patient enrolment, ongoing performance measurement and quality improvement processes. As is usual in Canadian health care, other provinces will likely follow the leaders, each in its own way and in its own time. The pace of transformation will undoubtedly be influenced by the documented accomplishments of the pacesetting provinces and the flow of earmarked federal funding to advance the primary health care reform agenda.

Perhaps the main message emerging from the recent Canadian experience is that primary health care transformation may be achievable in a pluralistic system of private health care delivery through a process that is voluntary and incremental, given strong government and professional leadership working in partnership. Incremental change allows early, system-wide implementation of those reform elements with broad public and stakeholder support. Pluralism of models offers graduated opportunities to those ready to embrace innovation without attempting to impose change on the remainder. In a context characterized by strong medical

associations with collective bargaining rights, broad-based primary health care transformation is possible only with the support of organized medicine.

A second message is that a single payer, publicly funded health care system need not be the enemy of health care reform, innovation and quality improvement.

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References:

Alberta AIM. 2010. *Taking AIM...Improving the Care of Albertans; Summarizing the Impact of AIM*. www.albertaaim.ca.

Beaulieu M-D., J.L. Denis, D. D'Amour, J. Goudreau, J. Haggerty, E. Hudon, G. Jobin, L. Lamothe, F. Gilbert, H. Guay, G. Cyr, and R. Lebeau. 2006. L'implantation des groupes de médecine de famille: le défi de la réorganisation de la pratique et de la collaboration interprofessionnelle, Montréal, Chaire Docteur Sadok Besroun en médecine familiale.

Blendon R.J., C. Schoen, K. Donelan, R. Osborn, C.M. DesRoches, K. Scoles, K. Davis, K. Binns, and K. Zapert. 2001. Physicians' Views on Quality of Care: A Five-country Comparison. *Health Affairs* 20(3):233-243.

Blendon R.J., C. Schoen, C.M. DesRoches, R. Osborn, K.L. Scoles, and K. Zapert. 2002. Inequities in Health Care: A Five-country Survey. *Health Affairs* 21(3):182-191.

Canadian Institute for Health Information. 2001. *Canada's Health Care Providers*. Ottawa: Canadian Institute for Health Information.

Canadian Institute for Health Information. 2009. *Experiences with Primary Care in Canada*. Ottawa: Canadian Institute for Health Information.

Canadian Institute for Health Information. 2010a. *Supply, Distribution and Migration of Canadian Physicians, 2009*. Ottawa: Canadian Institute for Health Information.

Canadian Institute for Health Information. 2010b. *Regulated Nurses: Canadian Trends, 2004 to 2008*. Ottawa: Canadian Institute for Health Information.

Canadian Institute for Health Information. 2010c. *Regulated Nurses: Canadian Trends, 2005 to 2009*. Ottawa: Canadian Institute for Health Information.

Canadian Medical Association. 2002. *Results for the CMA 2002 Physician Resource Questionnaire*. Available at <http://www.cmaj.ca/cgi/content/full/167/5/521/DC1> (accessed April 26, 2010).

Cavers W. J. R., V. H. F. Tregillus, A. Micco, and M. J. Hollander. 2010. Transforming Family Practice in British Columbia: The General Practice Services Committee. *Canadian Family Physician* 56:1318-1321.

Cohen M., B. Ferrier, C. Woodward, and J. Brown. 2001. Health Care System Reform: Ontario Family Physicians' Reactions. *Canadian Family Physician* 47:1777-1784.

College of Family Physicians of Canada, Canadian Medical Association, Royal College of Physicians and Surgeons of Canada. 2007a. *National Physician Survey 2007*. Available at http://www.nationalphysiciansurvey.ca/nps/2007_Survey/Results/ENG/National/pdf/Q19/Q19_CORE.only.pdf (accessed October 20, 2009).

College of Family Physicians of Canada, Canadian Medical Association, Royal College of Physicians and Surgeons of Canada. 2007b. *National Physician Survey 2007*. Available at http://www.nationalphysiciansurvey.ca/nps/2007_Survey/Results/ENG/National/pdf/Q33/Q33a_CORE.only.pdf (accessed October 23, 2009).

College of Family Physicians of Canada, Canadian Medical Association, Royal College of Physicians and Surgeons of Canada. 2007c. *National Physician Survey 2007*. Available at http://www.nationalphysiciansurvey.ca/nps/2007_Survey/Results/ENG/National/pdf/Q39/Q39_NON_CORE.only.pdf (accessed April 26, 2010).

College of Nurses of Ontario. 2008. *Registered Nurses in the Extended Class Employed in Nursing in Ontario*. Available at https://remote.cnomail.org/ibi_apps/WFServlet (accessed August 9, 2009).

College of Nurses of Ontario. 2011. *Membership Totals at a Glance*. Available at <http://www.cno.org/en/what-is-cno/nursing-demographics/membership-totals-at-a-glance> (accessed January 17, 2010).

Commissaire à la santé et au bien-être du Québec. 2009. *Construire sur les bases d'une première ligne de soins renouvelée: recommandations, enjeux et implications*. Commissaire à la santé et au bien-être du Québec. Québec, Québec: Gouvernement du Québec.

Commission on the Future of Health Care in Canada. 2002. *Building on Values: The Future of Health Care in Canada – Final Report*. Saskatoon, Saskatchewan.

Commonwealth Fund. 2000. *International Health Policy Survey of Physicians* (charts originally presented at the 2000 International Symposium on Health Care Policy).

Commonwealth Fund International 2010 Health Policy Survey. Ontario data courtesy of the Ontario Health Quality Council (Michelle Rey, personal communication, January 3, 2011)

Donald F., R. Martin-Misener, D. Bryant-Lukosius, K. Kilpatrick, S. Kaasalainen, N. Carter, P. Harbman, I. Bourgeault, and A. DiCenso. 2010. The Primary Healthcare Nurse Practitioner Role in Canada. *Canadian Journal of Nursing Leadership* 23(Special Issue):88-113.

Drew P., B. Jones, and D. Norton. 2010. Team Effectiveness in Primary Care Networks in Alberta. *Healthcare Quarterly* 13(3):33-38.

First Ministers' Meeting on the Future of Health Care. September 16, 2004.

Glazier R.H., M.M. Agha, R. Moineddin, and L.M. Sibley. 2009. Universal Health Insurance and Equity in Primary Care and Specialist Office Visits: A Population-based Study. *Annals of Family Medicine* 7(5):396-405.

Haggerty J.L., R. Pineault, M-D Beaulieu, Y. Brunelle, J. Gauthier, F. Goulet, and J. Rodrigue. 2008. Practice Features Associated with Patient-reported Accessibility, Continuity, and Coordination of Primary Health Care. *Annals of Family Medicine* 6(2):116-123.

Hogg W., S. Dahrouge, G. Russell, M. Tuna, R. Geneau, L. Muldoon, E. Kristjansson, and S. Johnston. 2009. Health Promotion Activity in Primary Care: Performance of Models and Associated Factors. *Open Medicine* 3(3):165-173.

Howard M., J. Goertzen, J. Kaczorowski, B. Hutchison, K. Morris, L. Thabane, M. Levine, and A. Papaioannou. 2008. Emergency Department and Walk-in Clinic Use in Models of Primary Care Practice with Different After-hours Accessibility. *Healthcare Policy* 4(1):73-88.

Howard M., and G.E. Randall. 2009. After-hours Information Given by Telephone by Family Physicians in Ontario. *Healthcare Policy* 5(2):106-115.

Hurley J, P. DeCicca, J. Li, and G. Buckley. 2011. *The Response of Ontario Primary Care Physicians to Pay-for-Performance Incentives*. Final Report to the Ontario Ministry of Health and Long-Term Care. January 2011.

Hutchison B., C.A. Woodward, G.R. Norman, J. Abelson, and J.A. Brown. 1998. Provision of Preventive Care to Unannounced Standardized Patients. *Canadian Medical Association Journal* 158(2):185-193.

Hutchison B., J. Abelson, and J. Lavis. 2001. Primary Health Care in Canada: So Much Innovation, So Little Change. *Health Affairs* 20(3):116-131.

Hutchison B. 2007. Disparities in Healthcare Access and Use: Yackety-yack, Yackety-yack. *Healthcare Policy* 3(2):10-18.

Hutchison B. 2008. A Long Time Coming: Primary Healthcare Renewal in Canada. *Healthcare Papers* 8(2):10-24.

Institute of Medicine. 2001. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington: National Academy Press.

Institute for Healthcare Improvement, 2003. *The Breakthrough Series: IHI's Collaborative Model for Achieving Breakthrough Improvement*. IHI Innovation Series white paper, Boston.

Kantarevic J., B. Kralj and D. Weinkauff. 2010. Enhanced Fee-for-Service Model and Physician Productivity: Evidence from Family Health Groups in Ontario. *Journal of Health Economics*. Available online 29 October 2010.

Lévesque J.-F., D. Roberge, and R. Pineault. 2007. La première ligne de soins: un témoin distant des réformes institutionnelles et hospitalières au Québec? Chapitre 5 dans Le système sociosanitaire au Québec: gouverne, regulation et participation, M-J Fleury, M Tremblay, H. Nguyen, L Bordeleau, eds. Gaëtan Morin éditeur, Chenelière Éducation, p. 63-78.

MacCarthy D., L Kallstrom, R. Gray, J. A. Miller, and M. Hollander. 2009. Supporting Family Physicians in British Columbia: The Experience of the Practice Support Program. *B. C. Medical Journal* 51(9):394-397.

Marchildon G.P. 2005. *Health Systems in Transition: Canada*. Copenhagen, WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies, p.25, 49.

Milliken O., R.A. Devlin, V. Barham, W. Hogg, S. Dahrouge, and G. Russell. 2011. Comparative Efficiency Assessment of Primary Care Service Delivery Models Using Data Envelopment Analysis. *Canadian Public Policy* 37(1): in press.

Muldoon L., S. Dahrouge, W. Hogg, R. Geneau, G. Russell and M. Shortt. 2010. Community Orientation in Primary Care Practices: Results from the Comparison of Models of Primary Health Care Study. *Canadian Family Physician* 56:676-683.

Nasmith L., P. Ballem, R. Baxter, H. Bergman, D. Colin-Thomé, C. Herbert, N. Keating, R. Lessard, R. Lyons, D. McMurchy, P. Ratner, P. Rosenbaum, R. Tamblyn, E. Wagner, and B. Zimmerman. 2010. *Transforming Care for Canadians with Chronic Health Conditions: Put People First, Expect the Best, Manage the Results*. Ottawa: Canadian Academy of Health Sciences. Available at <http://www.cahs-acss.ca/e/pdfs/cdm%20final%20English.pdf> (accessed December 28, 2010).

Naylor C.D. 1986. *Private Practice, Public Payment: Canadian Medicine and the Politics of Health Insurance, 1911-1966*. Kingston and Montreal: McGill-Queen's University Press, p. 176-258.

Newfoundland and Labrador Department of Health and Community Services. 2003. *Moving Forward Together: Mobilizing Primary Health Care. A Framework for Primary Health Care Renewal in Newfoundland and Labrador*. St. John's: Newfoundland and Labrador Department of Health and Community Services.

Northwest Territories Health and Social Services. 2002. *NWT Primary Community Care Framework*. Yellowknife: Northwest Territories Health and Social Services.

Organisation for Economic Cooperation and Development (OECD). Health Data 2009.

Pineault R., J.-F. Levesque, M. Breton, M. Hamel, and D. Roberge. 2008. Chapitre 19 : La première ligne : quel rôle des organisations publiques, privées et mixtes? Dans Le privé dans la santé : Les discours et les faits. Sous la direction de F Béland, A-P Contandriopoulos, A Quesnel-Vallée, L Robert. Montreal : Les Presses de l'Université de Montréal, ISBN 978-2-7606-2124-4, p. 427-450.

Pineault R., J.-F. Levesque, D. Roberge, M. Hamel, P. Lamarche, and J. Haggerty. 2009. *Accessibility and Continuity of Care: A Study of Primary Healthcare in Québec*. Research report presented to the Canadian Institutes of Health Research and the Canadian Health Services Research Foundation. Gouvernement du Québec et Centre de recherche de l'Hôpital Charles LeMoine, ISBN: 978-2-550-55436-3; 86 pages.

Provost S., R. Pineault, J-F. Levesque, S. Groulx, G. Baron, D. Roberge, and M. Hamel. 2010. Does Receiving Clinical Preventive Services Vary Across Different Types of Primary Healthcare Organizations? Evidence from a Population-Based Survey. *Healthcare Policy* 6(10):68-83.

Rosser W.W., J.M. Colwill, J. Kasperski, L. Wilson. 2010. Patient-centered Medical Homes in Ontario. *New England Journal of Medicine*; published at www.nejm.org on January 6, 2010 (10.1056/NEJMp0911519) *Perspective*.

Russell G., S. Dahrouge, W. Hogg, R. Geneau, L. Muldoon, and M. Tuna. 2009. Managing Chronic Disease in Ontario Primary Care: The Impact of Organizational Factors. *Annals of Family Medicine* 7:309-318.

Saskatchewan Health. 2002. *Team Effectiveness Tool*. Regina Saskatchewan: Primary Health Services Branch.

Saskatchewan Health, Primary Health Services Branch. 2002. *The Saskatchewan Action Plan for Primary Health Care*. Regina: Saskatchewan Health.

Schoen C., R. Osborn, P. T. Huyn, M. Doty, J. Peugh, and K. Zapert. 2006. On the Front Lines of Care: Primary Care Doctors' Office Systems, Experiences, and Views in Seven Countries. *Health Affairs* Web Exclusive 25:w555-w571.

Schoen C., R. Osborn, M.M. Doty, D. Squires, J. Peugh, and S. Applebaum. 2009. A Survey of Primary Care Physicians in Eleven Countries 2009: Perspectives on Care, Costs, and Experiences. *Health Affairs* Web Exclusive 28(6):w1171-w1183.

- Schoen C., R. Osborn, M.M. Doty, M. Bishop, J. Peugh, and N. Murukutia. 2007. Toward Higher-performance Health Systems: Adults' Health Care Experiences in Seven Countries. *Health Affairs* 26(6):w717-w734.
- Schoen C., R. Osborn, S.K.H. How, M.M. Doty, and J. Peugh. 2008. In Chronic Condition: Experiences of Patients with Health Care Needs in Eight Countries. *Health Affairs* Web Exclusive 28(1):w1-w16.
- Schoen C., R. Osborn, D. Squires, M.M. Doty, R. Pierson, and S. Applebaum. 2010. How Health Insurance Design Affects Access to Care and Costs, by Income, in Eleven Countries. *Health Affairs* 29(12): Web First 1-12.
- Senate Standing Committee on Social Affairs, Science and Technology. 2002. *The Health of Canadians – The Federal Role. Volume Six: Recommendations for Reform*. Ottawa: Senate Standing Committee on Social Affairs, Science and Technology.
- Sibley L.M., and R.H. Glazier. 2009. Reasons for Self-reported Unmet Healthcare Needs in Canada: A Population-based Provincial Comparison. *Healthcare Policy* 5(1):87-101.
- Tourigny A., M. Aubin, J. Haggerty, L. Bonin, D. Morin, D. Reinharz, Y. Leduc, M. St-Pierre, N. Houle, A. Giguere, Z. Benounissa, and P-H. Carmichael. 2010. Patients' Perceptions of the Quality of Care after Primary Care Reform. *Canadian Family Physician* 56:e273e282.
- Tu K., K. Cauch-Dudek, and Z. Chen. 2009. Comparison of Primary Care Physician Payment Models in the Management of Hypertension. *Canadian Family Physician* 55:719-727.
- Tuohy C. 1999. *Accidental Logics: The Dynamics of Change in the Health Care Arena in the United States, Britain and Canada*. New York: Oxford University Press, p. 56.
- Weinerman R., H. Campbell, M. Miller, J. Stretch, L. Kallstrom, H. Kadlec, and M. Hollander. Improving Mental Health Care by Primary Care Physicians in British Columbia. *Healthcare Quarterly* 14(1):36-38.
- Woodward C.A., B. Ferrier, M. Chen, and J. Brown. 2001. Professional Activity: How is Family Physicians' Work Time Changing? *Canadian Family Physician* 47:1414-1421.

General practice and primary health care in Denmark

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The Danish Health Care System: A thumbnail outline¹

Denmark is a small country with 5.4 million inhabitants. It is among the most prosperous countries in the world. Like the other Scandinavian countries Denmark has a strong welfare state, with universal access to health services. Equity and solidarity are held as important underlying values.

All Danish residents have free and direct access to GPs, ophthalmologists, ear, nose and throat office based specialists, and hospital emergency and accidents services. However, the latter gradually requires a referral from the GP. Access to other office based specialists and hospital care is free at the point of use with a referral from a GP. Free access also includes ambulance transport and palliative care. The nature and extents of treatment is left to medical judgment of the physician in charge and there is no minimum package of care.

Health care in Denmark is largely tax financed. There are no earmarked taxes for health care, i.e. financing of health care is taken out of general tax funds. However, co-payment makes up about 17% of total health expenditures. As mentioned there is no co-payment for hospital treatment (in-patient and out-patient) or use of GPs or office based specialist consultations. There are for instance co-payment for prescription medicines, adult dental care, and physiotherapy.

Municipal health services are also free at the point of use. Typical services are home nursing, home help, health visitors (to mothers with newborns) rehabilitation, and child dental services. These services are financed through a combination of block grants from central government and local taxes (income and property taxes).

As percentage of gross domestic product health care is about 9.7% (2007)²

The two pie charts below show the percentage distribution of total health expenditures and primary care health care respectively. In relation to overall health expenditures general practice makes up about 8%. When narrowing down to primary health care alone general practice represents almost 50% of the expenditures for primary care – here defined as non-specialized services outside hospitals.

Figure 1: % distribution of total Danish health expenditures 2008/09. Total = 100.6 billion DKK, 1\$ = 5.6 DKK, 1 €= 7.40 DKK

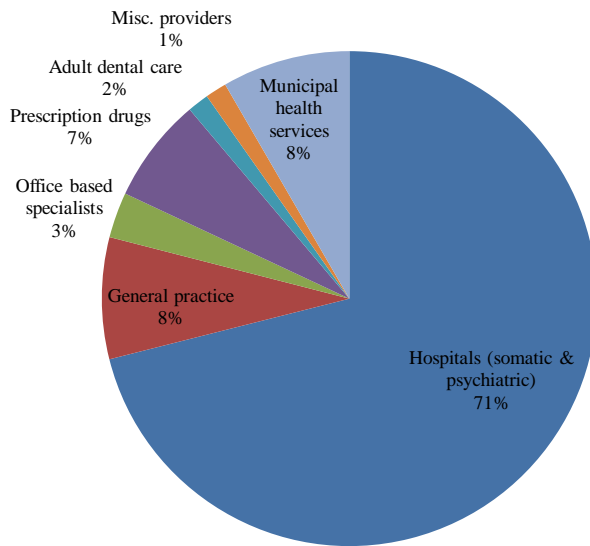
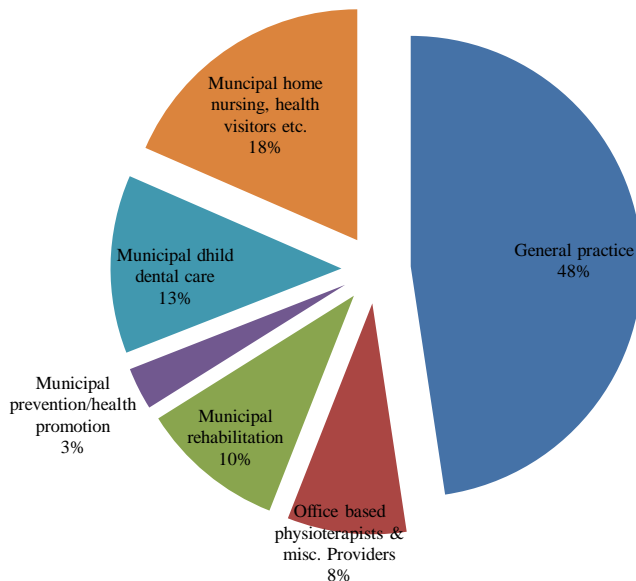


Figure 2: Percentage distribution of primary health care expenditure (16.8 billion DKK in 2008, 1\$ = 5.60 DKK, 1€= 7.40 DKK)



At the delivery side there is a mixture of private and public providers of health care. Publicly owned and operated hospitals provide the bulk of all hospital services – about 97%. Hospitals are staffed by salaried physicians (and of course many other professional groups). Hence, unlike in the

US, office based specialists do not have hospital privileges. General practitioners and office based specialists are self employed with a contractual relationship to the public funding authorities. 95% of the turnover in a typical GP office comes from payment from the public authority, and a number of points are regulated through a contract negotiated every two years between the Organization of General Practitioners and the Danish Regions. Apart from fee schedules, questions like opening hours, accessibility, for instance a time for consultation should be available within five week-days, are part of the contract.

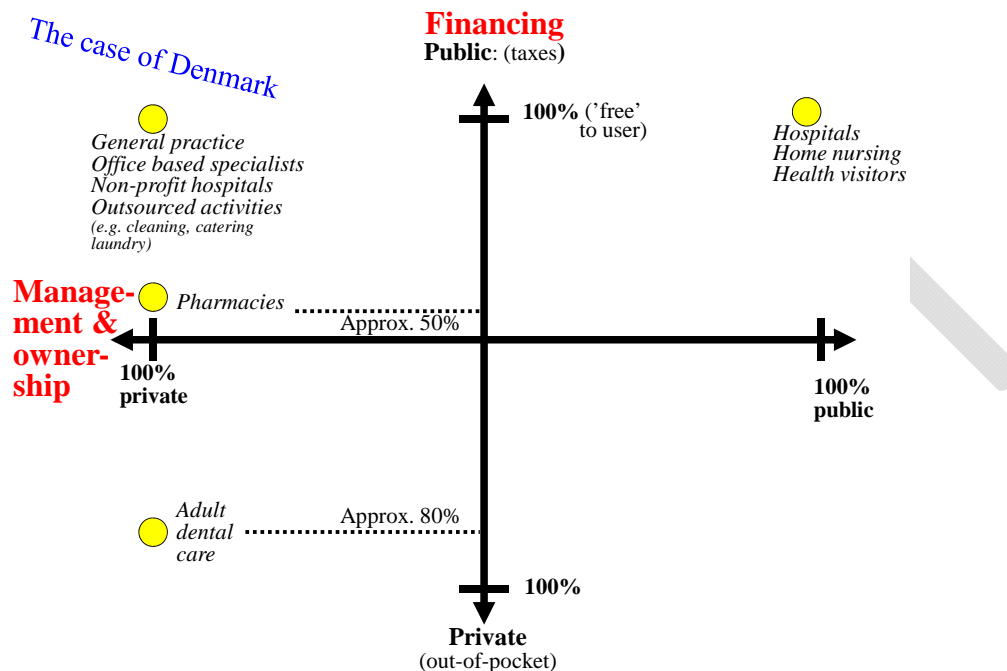


Figure 3: Financing and ownership in the Danish health care system

The health care system is embedded in a decentralized administrative structure consisting of five regions and 98 municipalities – and, of course, the state. Elected politicians at the regional and municipal level are in charge of, among other things, health care.

The five regions are responsible for the running of the public hospitals (planning, operation, financing) and office based health services like general practice and specialists (planning and financing). The regions receive a block grant from central government for financing health care. The municipalities run home nursing services, health visitors (specially trained nurses who support mothers and their newborn), home help, rehabilitation services, and are responsible for primary prevention. The municipalities also run and finance dental services for child dental services.

In Denmark primary health care refers to the municipal services and general practice based regional health services.

Recurrent surveys among patients show a persistently high level of patient satisfaction^{3, 4}: Around 90% of the respondents are either satisfied or very satisfied.

The system has a relatively good track record in terms of controlling expenditure with below OECD-average growth rates. The track record for introducing organizational and management changes, such as transition to ambulatory care/same day surgery, and introduction of activity-based payment is also good^{5, 6}.

General practice (family practice)

General practitioners make up the corner stone of the Danish health care system, not in terms of costs, cf. figure 1 and 2, or number of physicians but by being the populations' first meeting point with health services, and because general practitioner are gatekeepers in relation to the rest of the health care system. The most important characteristics of general practice are: the patient list system, the gatekeeper function, the collaboration with the other providers, out-of-hours services, and the remuneration system.

A total of about 3600 GPs serve the Danish population. This number should be compared to close to 14,000 hospital employed physicians. The GPs are distributed across 2,200 practice units, meaning that on the average there is 1.7 GPs per practice unit plus ancillary personnel totaling around 3,100, mainly nurses and secretaries. In a typical year the total number of face-to-face consultations, home visits, and telephone consultation sum to about 40 million per year, i.e. about 7 contacts per person⁷. Estimates of referrals from GPs to other providers vary from 10⁸ to 20%⁹ of all contacts. 'Other providers' may be office based specialists, in-and outpatient hospital treatment, physiotherapy, and misc. municipal health services, e.g. home nursing.

The patient-list system

All Danes must be on the patient list of a GP (or group of GPs), i.e. the GP is responsible for serving the patients on the list. The average number of persons on the list is 1561⁷. There is considerable variation in this number both across GPs and across regions.

There is a norm stating that when a GP has reached 1600 persons on the list (as of 2008) it is possible, but not necessary, to close the list, i.e. not accepting more persons to the list. Compared to Holland or England this number is at low end.

In principle citizens are free to choose their own GP, but subject to a number of conditions. It is not possible to choose a GP who has closed the list, and it must be a GP having office within 15 kilometers of the residence of the citizen. Furthermore, a listed person must have been on the list of a GP for at least 3 months before a new GP can be selected.

The list system enables the GP to develop a better knowledge of the individual patient (continuity of care), and often also knowledge of the family situation as spouses and children often have the same

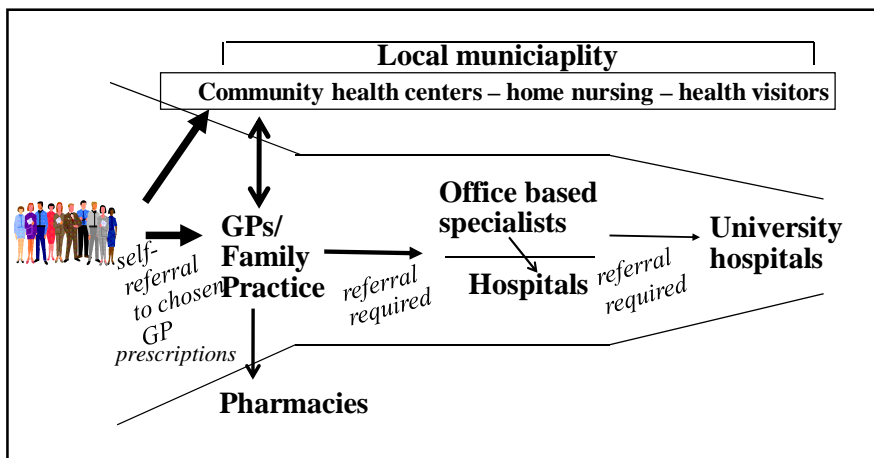
GP (hence the term ‘family doctor’). As is discussed below the list system is also needed if some degree of capitation payment is part of the remuneration scheme.

Gatekeeper function

By definition a gatekeeper is a person who controls access to something, in this case health care, access to other providers. Formally the gatekeeper function means that the GPs decide on referral to for instance most office based specialists except ear, nose, and throat specialists, in-and outpatient hospital care. Hence, in essence apart from emergency care, referral to more specialized care requires referral from the GP. Furthermore, the GP also has referral rights to some municipal services, but is not the sole decision maker.

The professional referral system is an integral part of controlling patient flows in the Danish health care system, cf. figure 4. The figure also shows the close collaboration between GPs and municipal services. For instance, the GP often works closely with home nurses as the patients cared for still are on the list of a GP who for instance may pay home visits to the same patients or prescribe medicines. Also, if a person is staying in a municipal nursing home, this person is also on the list of the GP.

Figure 4: Gatekeeping by GPs and the overall referral system



Out-of-hours services

Normal office hours on week-days are 8:00 a.m. to 4 p.m. On week-ends and outside office hours GPs organize out-of-hours services on a subregional basis. The GPs in a given geographical area on a rota basis, and sometimes also non-GPs, staff a few regional out-of-hours service centers where

citizens can make telephone calls to and in a dialogue with the GP on call decide whether the relevant advice can be given over the telephone (roughly in 50% of all cases), or whether it is necessary to come to the office facilities or if needed, a home visit has to be organized through the mobile GP unit in the area. There is always 'a roaming' GP in the geographical area who will pay the home visits. The out-of-hours centers often are located at, but independent of, the local hospital.

The out-of-hours service obviously breaks the continuity principle because a patient rarely or never gets their 'own' GP on the telephone when they call outside office hours.

An alternative to using the out-of-hours-services would be to turn-up at the A&E departments of the hospitals. However, increasingly a referral from the GP/out-of-hours staff is needed to use the A&E departments that then mainly serve persons with serious problems, for instance after accidents etc.

The current organization of out-of-hours services goes back to 1992 and has inspired other countries (Norway, Holland and England)¹⁰. An important feature of the Danish system is the idea of being able to contact (per telephone initially) a GP. However, it is being discussed whether the initial triage function could be handled by an experienced nurse.

Entry and exit of GPs

In principle any doctor with a specialty in general medicine can set up an office and call herself general practitioners. However, in order to receive reimbursement from the public authority a so called 'provider number' has to be granted to a GP. In reality there are no GPs without a provider number, i.e. patients are not willing to carry the full costs of GP consultations.

The provider numbers are used to control the number of GPs – and hence to a certain extent (expected) expenditures. Essentially the number of provider numbers is linked to number of citizens so that additional provider numbers are made available with increases in the population.

When GPs want to exit the system they are allowed to sell the provider number and (possibly) office facilities. A number of rules set down by the Organization of General Practitioners govern the sale, e.g. value of an asset like 'good-will'.

Remuneration of GPs

GPs are paid by a mixture of per capita payment and fee-for-services. About a third of their income comes from capitation payment (and presupposes the existence of a list system) while the other two thirds come from fee-for-service, e.g. per consultation, examination, operation, etc.), including a variety of tests.

Health economists recommend such a mixed capitation – fee-for service system without agreeing on the percentages for two components. The system tries to combine two types of incentives: The

treatment of patients on the list irrespective of how often they consult the GP along with a base income to the GP irrespective of activity level, and an incentive to work effectively when seeing patients. The trick is to strike a good balance. Currently the prevailing opinion is that the fee-for-service component is too dominant in particular because it may squeeze out time consuming consultations. In the 2011-negotiation between the Danish Regions and the Organization of General Practitioners it was agreed to increase the capitation fee and lower the fee-for-service component.

In addition to the above the objective of the remunerations system is give an incentive for the GPs to treat patients by themselves rather than referring them elsewhere in the system. It is obvious that the fee-for-service component is an important incentive in this regard.

While the fee-for-service mechanism can increase GPs' productivity, capitation aims at preventing GPs from providing unnecessary treatment. In 1987, the city of Copenhagen changed from mainly being capitation-based the mixed capitation-fee-for-service system in the rest of Denmark. The result of this change was that the volume of activities which were fee-for-service based increased while referrals to specialists decreased (Krasnik et al. 1990).

The fee-for-service system is used deliberately to create incentives for providing specific (politically high priority) services. For example, a comparatively high fee for preventive consultations or consultations for diabetes is supposed to encourage GPs to offer longer consultations focusing on broader health and prevention activities such as education regarding smoking or dietary habits, weight control, and so on.

The annual income level of a typical GP is well above the level of senior hospital consultant. It appears to be a deliberate policy to attract and retain GPs. While it in professional terms may not be as prestigious to be a GP compared to a cardiac surgeon there at least should be an added monetary reward the reasoning goes.

Daily work in Danish Family Practice

Typical work schedule for a week-day

8.00 -9.00 telephone consultations: test results, renewal of prescriptions, advice on symptoms, triage (to consultation, home visits, acute/not acute service)

9.15 -12.30 Planned consultations

12.30-13.15 Lunch

13.15-15.00 Planned consultations/home visits

15.00-16.00 Paperwork, home visits

Some practices offer “open consultation” for 30-60 minutes daily for patients with smaller or acute problems without appointment.

Once a week there are late afternoon/evening consultations until 18.00 or 19.00.

All family practices are computerized. The software is developed to handle patient records, sending prescriptions to pharmacies and referrals to hospitals and receive information, for instance lab tests and letters of discharge, about the patients from specialists, hospitals and laboratories.

Many practices have junior doctors in specialist training and medical students. The senior doctors give ad hoc and planned supervision.

There may be telephone contacts to patients, home nurses, nursing homes, the social service, hospitals and others during the day. E-mails from patients are answered.

There are regular weekly or biweekly in-house meetings about administrative, financial and staff issues. The frequency varies very much among practices.

Out-of-hours service, cf. above: Most family doctors have 2-4 monthly duties between 16.00 and 08.00 and in week-ends (duration 4-8 hours). Three kinds of services: telephone consultations, consultations in clinic, home visits.

Many family physicians hold secondary jobs e.g. as consultants for the municipalities, or coordination of cooperation between family practices and hospitals, pre- and postgraduate teaching, quality development etc.

Contact pattern to general practice

Sex and age

Female patients, especially in the fertile age, outnumber males in family practice. Middle aged people are frequent, small children and old people less frequent and older children are few.

Reasons for encounter⁹

Most common reasons for encounters are unspecific symptoms amounting to 24% of all contacts, musculoskeletal symptoms to 14%, respiratory tract symptoms to 10%, and psychological/psychiatric problems to 9% of all contacts. Different preventive consultations concerning children, vaccinations, pregnant women, cervical smears and general health represent 19%. Various kinds of attestations count for 5%.

Kind of services

In 2009 the number of services in general practice was 38,0 million which means 6.9 contacts per inhabitant. Of these 52% were ordinary consultations. Telephone consultations amounted to 39%, E-mail consultation to 5%, preventive consultations to 3% and home visits to 1%.

Diagnostics

The possibilities for making clinical tests vary very much from practice unit to practice unit depending on size, staffing, and available equipment. Typical the following tests are available: Urine stix, cultivation of bacterias, microscopy, CRP, INR, plasma glucose, lung function, Ekg,

The family physician has access to send blood, tissue and other biological materials to (primarily public hospital) laboratories for analysis.

Examination by X-rays and ultrasound can be done by referral to specialists or, the main rule, hospitals. In these instances the family doctor keeps the responsibility for the patient.

Referrals

12.7% of all contacts result in referral to specialist, out-patient clinics at hospitals or hospitalization⁹. This figure has increased 19% since 1993.

Staff

All practices employ nurses and/or secretaries, and relatively few also employ laboratory technicians. The nurse performs control of patient with chronic diseases, makes blood test and other laboratory functions and treat patients e.g. wounds and warts. In some practices the nurse performs secretary functions (telephone, appointments and paperwork).

Quality assurance

Quality assurance is an integrated part of Danish General Practice. It is organized at different levels: National, regional and within individual practice units.

Organization of quality assurance at the national level

The Danish College of General Practice is continuously developing clinical guidelines. The guidelines are distributed to all general practitioners in Denmark.

The joint unit for quality development between the Organization of Danish General Practitioners and the Danish Regions, DAK-E (Danish Quality Unit of General Practice)¹¹ coordinates quality development in general practice in collaboration with the regions.

Among other things DAK-E is responsible for development and implementing an advanced software-module in all GPs' electronic patient filing systems. The module collects all data from the physician's computer, inclusive prescriptions, laboratory test and information from hospitals. The data is online automatically forwarded to a central database and used for quality improvement and research. A series of reports have been developed on the basis of clinical problems. In return all GPs have online access to detailed information about to what extent their treatment are in accordance with the clinical guidelines.

DAK-E also runs DANPEP. DANPEP stands for Danish patients evaluate practice which is a method where patients through questionnaire evaluate their doctors and general practices. The result of the survey is used to focus on the patient experienced quality and to create changes in own practice

The questionnaire concerns the patients' experience of practice and includes significant questions to which the patients have the opportunity to provide relevant answers.

The GP receives a personalized report containing the results of the evaluation. The report includes aggregated data for the other participating doctors in the region, so the doctor has the opportunity to compare and put perspective to his/her own result.

The Audit Project Odense, APO¹², has developed a method which is frequently used for quality improvement assessment. The concept includes GPs' repeated registrations of their own activities, e.g. referrals or treatment of specific illnesses, feedback, additional interventions and a final evaluation. A large proportion of GPs in the Nordic Countries have participated in APO's quality assurance projects.

Organization of quality assurance at the regional level

Each region employs a number of quality development staff, which typically is person who is part-time GPs. They initiate and support local quality development projects. Furthermore, each region has a board of GPs, civil servants, and politicians who initiate regional quality development projects. They can enter into agreement on extra fees for special services provided in general practice.

Organization of general practice research in Denmark

The four medical schools all have departments of general practice. In addition there are four university based general practice research units financed primarily by funds from the contractual agreement between the Danish Regions and the Organization of General Practitioners. For each

patient, a small sum is allocated to research and to quality development projects. Furthermore, there is a substantial amount of external funding. The research conducted is primarily health services research and clinical research. The directors of the research units all are (ful) professors and part time GPs.

Training for GP specialist certification

To become a general practitioner 6 years of training are required after medical school: 1 year of basic training and 5 years of specialist training.

- Basic clinical training (KBU): 12 months (0/6 months in general practice)
- Intro-position to general practice: 6/12 months (the latter if the junior doctor did not attend general practice during the basic clinical training).
- Junior position in general practice I: 6 months
- Clinical training at hospital: 30 months
- Junior position in general practice II : 6 months
- Junior position in general practice III: 12 months

Having finished the program the doctor receives the title "Speciallæge i Almen Medicin" - this translates into "specialist in general medicine".

In the contractual agreement between the GPs and the regions, each GP has an amount of money, that can only be spent on (post graduate continuing education) clinical courses¹³. Only courses that are accepted by a board will be reimbursed. If the GPs do not spend their course money within three years, the sum will be returned. Also the pharmaceutical industry contributes to the GPs' postgraduate education. On average, the Danish GPs spend a significant amount of time on keeping up to date. There is no requirement for recertification, however.

Bibliography

1. Strandberg-Larsen M, Nielsen MB, Vallgåarda S, KA, rangbæk K. Denmark Health system review. European Observatory on Health Systems and Policies; 2007.
2. OECD. OECD Health Data, june 2010. OECD Health Data 2011.
3. Enheden for brugerundersøgelse. Den landsdækkende undersøgelse af patientoplevelser (Country wide survey of patient experience). Copenhagen: Enheden for Brugerundersøgelse, 2009
4. Statens Institut for Folkesundhed, National Institut of Public Health. Stor tilfredshed med egen læge /High degree of satisfaction with GP. *, 2011 (Accessed January 20, 2011 http://www.si-folkesundhed.dk/Ugens%20tal%20for%20folkesundhed/Ugens%20tal/38_2007.aspx).
5. Pedersen KM, Beck M, Christiansen T. The Danish health care system: evolution - not revolution - in a decentralized system. Health Economics 2005;14 - S1:S41-S57.
6. Pedersen K, Bech M, Vrangbæk K. The Danish Health Care System: An Analysis of Strengths, Weaknesses, Opportunities and Threats. The Consensus Report. Copenhagen: Copenhagen Consensus Center, 2011
7. Ministeriet for Sundhed og Forebyggelse, (Ministry of Health and Prevention). Almen praksis' rolle i fremtidens sundhedsvæsen (in Danish: The role general practice in the health care system of the future). Copenhagen: Ministry of Health and Prevention; 2008.
8. Munck A, Pedersen K, Hansen DG. Henvisninger fra almen praksis - en endagsregistrering 2008 (in Danish: Referrals from general practice - a one-day registration - 2008). Odense: Research Unit of General Practice, University of Southern Denmark; 2008.
9. Moth G, Vedsted P, Olesen F. Kontakt og sygdomsmønsteret i almen praksis 2008 (in Danish: Contact and morbidity pattern in general practice 2008). Århus: Research Unit of General Practice; 2010.
10. Flarup L, Moth G, Vedsted P, Olesen F. Den danske lægevagt i internationalt perspektiv. En sammenlignende undersøgelse af lægevagter i Danmark, England, Holland, Norge og Sverige (in Danish: the Danish out-of-hours services in an international perspective. A comparative analysis of out-of-hours-service in Denmark, England, Holland, Norway, and Sweden). Århus: Research Unit of General Practice, University of Århus; 2010.
11. DAK-E. Homepage of the Danish Quality Unit of General Practice (in English). <http://www.dak-e.dk/flx/english/home/> 2011.
12. APO. Homepage of Audit Project Odense, APO, at the University of Southern Denmark (in Danish Only). <http://www.apo-danmark.dk/> 2011.
13. Arbejdsgruppen for praktiserende lægers efteruddannelse. Rapport fra arbejdsgruppen for praktiserende lægers efteruddannelse (in Danish: Report from working party on continuing education of general practitioners). 2004.

Draft 5th March 2011.

Many features of UK primary care have been constant since the National Health Service was started in 1948. There is universal registration with a primary care physician (the general practitioner or GP) and patients choose the general practice with which they wish to register. All primary and specialist care is almost entirely free at the point of delivery, funded nationally from general taxation¹. Specialists work largely in hospitals where both inpatient care and outpatient clinics are based, and access to specialists requires a referral from GPs except attendance at emergency rooms and a small number of direct access clinics such as those for sexually transmitted disease. GPs work in their own or rented premises, in groups of an average of four physicians. Technically self-employed, they derive the majority of their income from the National Health Service through capitation, around 25% for quality payments and payments for providing specified additional services, for example to drug misusers. From the income they receive, they employ staff (nurses, receptionists and administrative staff), with the profit from the practice as their take-home pay. Currently, the average net pay of a GP is slightly more than the NHS income of a specialist, though some specialists may have additional income from patients seen outside the NHS ('private' patients). There are near universal electronic medical records in primary care which are transferred when patients change practice, and since both ambulatory specialist visits and hospital admissions result in communication back to the GP, primary care records in principle contain a lifelong record of the whole of the patient's medical care.

New models of care. 1. Quality improvement initiatives (including pay for performance)

In 1990, the UK introduced its first experiments with pay for performance in primary care. This included payments for reaching target levels for childhood immunisation and cervical cytology. The incentive was followed by an increase in performance and a reduction in inequalities as practices in socio-economically deprived areas gradually improved their performance towards that of more affluent practices^{1 2}. However, an incentive to provide 'health promotion clinics' was perceived to have led to rebadging of existing activity to claim payment as well as driving intended new activity and was withdrawn after a short period.

In 1998, the English government embarked on a widespread programme of quality improvement under the general heading of 'clinical governance'^{3 4 5}. This included the development of national clinical guidelines and National Service Frameworks to guide implementation of improvement activity, a body to make recommendations on cost effective treatments in England (NICE, www.nice.nhs.uk), the introduction of annual appraisal for all doctors working in the NHS, district wide audits of clinical care with identifiable data being shared with practices and sometimes with patients, and a range of

¹ There are outpatient prescription charges of £7.20 per item in England, £3.00 in Scotland (\$11.60, \$4.80), no prescription charges in Wales. Around 90% of items are dispensed to people who are exempt from prescription charges. There are additional charges for dental care and care from opticians.

local financial incentives schemes for quality improvement. These were associated with significant improvements in quality of care⁶.

In 2004, a new and much more ambitious pay for performance scheme was introduced in general practice, with a quarter of GPs' income dependent on a complex set of ~70 indicators relating to clinical care, and 70 relating to practice organisation and patient experience (the Quality and Outcomes Framework, QOF)⁷. The scheme has gradually evolved with the introduction of new clinical areas and gradual raising of performance thresholds that trigger payment. An important feature of the scheme is that GPs can exclude patients from individual indicators if they judge them inappropriate for that patient⁸. A scheme to tie GP payments directly to scores on patient questionnaires was introduced in 2008 but proved problematical⁹ and is being withdrawn from 2011. In general, the financial incentives have produced some increase in the rate of quality improvement for major chronic diseases, but against a background of quality that was already improving quite rapidly¹⁰ and it is likely that the same change could have been produced with a lower financial incentive.

Although analysis of QOF usually focuses on the financial incentives, public reporting of all QOF data means that competition with other practices is likely to have been an important motivator for some or many practices. Additionally, there was considerable support from primary care organisations for the initial implementation of QOF, which occurred in the context of nearly all UK practices having some form of electronic medical record. Nevertheless, the Quality and Outcomes Framework has changed both the organisation of practice and relationships within practices^{11, 12, 13, 14}, and in some cases have led to changes in clinical practice that have been unfamiliar to physicians and unwelcome¹⁵. Potential negative impacts on non-incentivised conditions appear to have been small^{16 17} and there may have been some effect of the QOF in reducing emergency hospital admissions for conditions included in the incentive scheme^{18 19} and in reducing socioeconomic inequalities in care for at least some conditions²⁰.

New models of care 2. Commissioning in a healthcare market.

Under proposals to be introduced in England in full in 2013, consortia of general practices (GP Commissioning Consortia) will be given 80% of the entire budget for specialist and hospital care to purchase care in behalf of their patients. The rationale given for this is that GPs have responsibility for defined populations are best placed to identify and meet their needs. The size and configuration of Commissioning Consortia will be determined by GPs themselves, but at present they look most likely to serve populations of 200,000 to 500,000 with budgets of between, £250m and £700m (\$700m-\$1.2b). This is not the first time that GPs have been offered responsibility for health care budget. A scheme called 'fundholding' was introduced in 1991 which gave GPs budgets for specified elements of elective hospital care. GPs took slowly to the idea; a few enthusiasts improved care for their patients, but overall, the effect was modest²¹. Inequalities in care increased^{22 23} and GPs were not strategic in their purchasing decisions. The limited initial scope of fundholding was

extended in 1995 under a scheme called "total purchasing"²⁴, but that model didn't get going before it was abolished by the incoming Labour government in 1998. Primary care trusts then took over commissioning responsibilities but proved to be risk averse, bureaucratic, and ineffective commissioners²⁵. This led the Labour government to revert to giving GPs notional budgets under "practice based commissioning" in 2004, but this scheme was again slow to get off the ground²⁶. Many regard the size and speed of the proposed changes in England as carrying major risks²⁷. However what they do reflect is the faith of the present and previous governments in primary care as being at the heart of decision making in the English NHS.

In the other three UK countries (Scotland, Wales and Northern Ireland) the explicit distinction between purchasers/commissioners and providers was abolished in 1998 when responsibility for healthcare was devolved to each country's elected administration. Whereas NHS England increasingly relies on quasi-market mechanisms alongside centrally set targets to drive improvements in quality, the other three countries have chosen to focus on trying to create more integrated, area-based 'single system working', where for example, Scottish Health Boards are allocated a budget by government for running hospital and community nursing care, and contracting with independent contractors such as GPs and dentists. Improvement is intended flow from professionally-led collaboration facilitated by funding for Managed Clinical Networks and safety improvement collaboratives.

Changes to the primary care workforce

The last 20 years has seen major changes to the primary care workforce. The number of GPs has increased progressively, so the average list size of a GP has reduced from... to... There have also been major changes to the size and composition of practice teams, with a steady increase in the numbers of nurses employed by general practitioners. The income of a GP practice relates to the population served and the care provided, not to the individual who provides that care. So GPs are free to employ whatever mix of staff they feel will deliver care in the most efficient manner. One of the major changes in recent years has been the increasing involvement of practice nurses in chronic disease management, with many practice now running nurse-led clinics for the routine monitoring and management of conditions such as diabetes, coronary heart disease and asthma. Nurses are able to substitute for GPs for many aspects of primary care without loss of quality²⁸, and the increasing use of nurses in chronic disease management has been associated with improvements in quality of care²⁹. A typical practice might now consist of four GPs, one nurse practitioner, two practice nurses, between six and ten receptionists / administrative staff, and 6500 registered patients. Other attached staff (e.g. midwives, community nurses) may be co-located in the GP practice. A recent change has been that whereas GPs have traditionally all been profit sharing partners in the practice, there is an increasing tendency for existing partners to employ salaried physicians (earning substantially less) rather than taking on new sharing partners.

Information technology in primary care

In 1990, the introduction of payments for reaching cervical cytology and immunisation targets meant GPs needed to establish call and recall mechanisms for their registered list of patients. For many, this was their first foray into computing. At that time, the English NHS provided 50% of the costs of practice computing providing systems met government defined standards of inter-operability. By the end of the decade, most GPs were using computers on their desks to print prescriptions and a substantial minority had moved their full clinical record onto computers. Hence, it was not a great step when, in 2004, GPs had to move to full electronic clinical records in order to get payments under the Quality and Outcomes Framework. The government at that time also moved to provide for the full cost of GP computer systems. The payment system for GPs does not require them to bill for services (there are virtually no item for service fees), so clinical computer systems have been designed to measure quality rather than for billing. Many practices have now moved to fully paperless records, with lab results being downloaded automatically into medical records and letters from specialists and hospitals scanned into the patient record.

Coordination of care

In principle, GPs is responsible for coordinating the care of individual patients. They hold the patient's record, including all correspondence with specialists and hospitals. Since they are also responsible for the majority of referrals to specialist care, they are best placed to coordinate the patient's overall care. However, a traditionally reactive model of care does not seem to meet the needs to the increasing number of very elderly and frail patients in the community, many of whom have multiple complex conditions. In response to this need, there has been an increasing move in the last six years to plan care on a much more proactive basis for these patients who are at particularly high risk of hospitalisation. These moves have included the development and proactive use of risk assessment models to identify patients at highest risk, employment of specific staff ('community matrons' in England) to coordinate care for a small caseload of very complex patients. In general these new approaches to care coordination have been organised by administrative organisations in the NHS and not always well integrated with practice based clinical teams. There are also longstanding and persistent difficulties in coordinating care between healthcare (provided by the NHS) and social care (provided by local municipal authorities). Some of the changes in the recent round of NHS reforms in England may address these problems. For example, GP commissioning groups will have a strong incentive to avoid the costs of unnecessary emergency admissions, and there are moves to give local authorities a stronger voice in the provision of health care. Continuity of care is one of the things which makes coordination easier and is highly valued by doctors and patients. However continuity of care becomes more difficult as teams get larger³⁰ and there is a tension between providing rapid access and personal continuity of care³¹. Although systems for sharing electronic data have improved informational continuity (for example the Scottish Emergency Care Summary and single diabetes record), and guidelines and QOF have improved the consistency of management for common conditions, there has been a recent reduction in personal continuity in primary care experienced by patients [ref 9]

Out of hours care

Until 2004, GPs had 24 hour responsibility for the care of their registered patients, though this was often delivered by area-based cooperatives of large numbers of GPs rather than individual practices. Out of hours care was at that time largely provided by GPs who visited the patient at home. In 2004, the local NHS administrative organisations (Primary Care Trusts in England and NHS Boards in Scotland) took over responsibility for out of hours care. They most often contracted care to a commercial organisation (sometimes run by local GPs) who employed doctors and increasing number of nurses, and who progressively provided care at purpose built facilities rather than in the patient's home. There has been considerable disquiet at the standard of out of hours care under these new arrangements³², and in 2013, responsibility for out of hours care in England will return to GPs, albeit as Commissioning Consortia rather than as individual practices.

Accountability

GPs are largely accountable for the care they provide through a single national contract (the GP Contract). This is negotiated at regular intervals between the governments of the four countries of the United Kingdom and the British Medical Association representing the profession. Local NHS administrative organisations, currently Primary Care Trusts in England and Health Boards in Scotland, have responsibility for monitoring practices and introducing local administrative and management arrangements, including local financial incentive schemes. The form of these organisations is changed at approximately five yearly intervals in England (less frequently in Scotland) causing repeated disruption³³, sometimes termed 'redisorganisation'^{34 35}. Under current proposals in England two major layers of NHS management will be abolished with a 45% reduction in NHS management costs over three years, and the future accountability and monitoring relationships for primary care (notionally to a National Commissioning Board) remain unclear.

Facilitating change in primary care

There's a risk of repetition, but I think this could include:

- *Special organisations that come and go (NPDT [?] in England and the Primary Care Collaborative in Scotland).*
- *More local, facilitative, data driven improvement activity.*
 - *The prime example is prescribing, where there is a long history of use of data (SPA then PRISMS in Scotland, PACT in E&W) starting with crude feedback, then shifting to primary care advisers (initially GPs in Scotland, but now almost entirely pharmacists and more of them) who would visit for a facilitated discussion of the data, with some embedding in contracts (Medicines Management 3 agreed actions in QOF; various local indicators and incentive schemes, increasing use of technology (eg Scriptswitch), and the promise of more to come as electronic prescribing becomes routine (Scotland has just created a centrally held patient level prescribing record where 90% of scripts can be linked to patients, which will drift up to 95%+ in the next year or so, which is enough to use for QI). That has had very large effects on prescribing, even if they were relatively slow (eg generic rates)*

- *Second example (but probably more variable) is QOF review visits, which in Scotland at least, Boards often used to do more than QOF (and invented the name QOF+ visits) including referral, admissions, more complex patient experience, but part of a wider facilitated use of data to try to change care. Again, changes in data will make this kind of activity more feasible/better grounded (and the new QOF domains reflect that, assuming the negotiators do finally agree them), although in Scotland Boards cut back on QOF review this year because of its cost.*
- *Could include the IT infrastructure here as well (government sets standards which are sometimes/often facilitative)*

The past decade has seen continual and major change driven from above, albeit less pronounced in Scotland than in England. The English government has established a succession of organisations to support GPs in changing and modernising care. These have had variable penetration, and to a large extent, changes in the delivery of primary care have relied and continue to rely on the entrepreneurialism and professionalism of GPs. The evidence of the last 20 years is that GPs possess this in considerable measure and, given the right incentives, can be both effective and innovative in the way in which they organise care in their practice. There remains, however, a large gulf between the most forward thinking and progressive practices and those whose approach to care has changed little.

Lessons to learn from the past 20 years

1. The core strengths of the UK National Health Service remain universal registration of the population with a primary care practitioner and care which is largely free at the point of delivery. This leads to health outcomes which are broadly comparable with other more costly health care systems.(Could reference the CMWF international surveys which show that health care process is pretty good, or as a reference for point 2)
2. The NHS is generally highly regarded by the British public who are entirely accepting of the GPs gatekeeping role and surprisingly tolerant of its well publicised failures.
3. Primary care remains at the heart of successive governments' health care policies.
4. The fact that primary care practitioners have responsibility for a defined population enables them to be held to account for the quality of care provided.
5. Quality of care in the UK has improved substantially in the last ten years most evidently in primary care associated with multiple quality improvement strategies including P4P, and for hospital care most notably in a reduction in waiting times.(Could also cite some other QI successes (although obviously not uniform – cancer and cardiac surgery, HAIs [I'm told big changes in MRSA and C Diff in Scotland in the last couple of years]))

6. The importance that government attaches to primary care is demonstrated by the most recent government plans to transfer most of the budget for specialist care to GPs (even though the effects of this policy are hard to predict.)
7. Having a single system in each of the countries in the UK means that health care can be changed – there is a system which is amenable to change. However, this strength is a simultaneous weakness as it encourages governments (especially in England) to change the organisation and delivery of care too frequently.

3086 words

References

¹ Baker D, Middleton E. Cervical screening and health inequality in England in the 1990s. *Epidemiology and Community Health* 2003; 57: 417-423.

² Middleton E, Baker J. Comparison of social distribution of immunisation with measles, mumps, and rubella vaccine, England, 1991-2001. *BMJ* 2003; 326: 854.

³ A First Class Service: quality in the new NHS. Department of Health, London
www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4006902 Accessed 28.2.11

⁴ Buetow S, Roland M. Clinical governance: bridging the gap between managerial and clinical approaches to improving quality of care. *Quality in Health Care* 1999; 8: 184-90

⁵ Campbell SM, Sheaff R, Sibbald B, Marshall MN, Pickard S, Gask L, Halliwell S, Rogers A, Roland MO. Implementing clinical governance in English primary care groups / trusts: reconciling quality improvement and quality assurance. *Quality and Safety in Health Care* 2002; 11: 9-14

⁶ Campbell SM, Roland MO, Middleton E, Reeves D. Improvements in the quality of clinical care in English general practice 1998-2003: longitudinal observational study *British Medical Journal* 2005; 331: 1121-1125.

⁷ Roland M. Linking physician pay to quality of care: a major experiment in the UK. *New England Journal of Medicine* 2004; 351: 1448-54

⁸ Doran T, Fullwood C, Reeves D, Gravelle H, Roland M Should physicians be able to exclude individual patients from pay-for-performance targets? Analysis of exception reporting in the English pay-for-performance scheme. *New England Journal of Medicine* 2008; 359: 274-84

⁹ Roland M, Elliott M, Lyratzopoulos G, Barbiere J, Parker R, Smith P, Bower P, Campbell J. Reliability of patient responses in pay for performance schemes: analysis of national General Practitioner Patient Survey data in England. *British Medical Journal* 2009;339:b3851, doi:10.1136/bmj.b3851

¹⁰ Campbell SM, Reeves D, Kontopantelis E, Sibbald B, Roland M. Effects of pay-for-performance on the quality of primary care in England. *New England Journal of Medicine* 2009; 361: 368-78

¹¹ S, Huby G, Watkins F, Checkland K, McDonald R, Davies H, Guthrie B. The impact of pay-for-performance on professional boundaries in UK general practice: an ethnographic study. *Sociology of Health and Illness* 2009; 31: 229-45

¹² McDonald R., Harrison, S., Checkland, K., Campbell, S.M. and Roland, M. Impact of financial incentives on clinical autonomy and internal motivation in primary care: ethnographic study. *BMJ* 2007; 334: 1357-1359

¹³ McDonald R, Checkland K, Harrison S, Coleman A. Rethinking collegiality: Restratisation in English general medical practice 2004-2008. *Soc Sci Med.* 2009; 68: 1199-205

¹⁴ Checkland K, Harrison S. The impact of the Quality and Outcomes Framework on practice organisation and service delivery: summary of evidence from two qualitative studies. *Quality in Primary Care.* 2010;18(2):139-46

¹⁵ Leydon GM, Dowrick CF, McBride AS, Burgess HJ, Howe AC, Clarke PD, Maissey SP, Kendrick T. Questionnaire severity measures for depression: a threat to the doctor-patient relationship? *Br J Gen Pract.* 2011 Feb;61(583):117-23.

¹⁶ Steel N, Maissey S, Clark A, Fleetcroft R, Howe A. Quality of clinical primary care and targeted incentive payments: an observational study. *Br J Gen Pract.* 2007 Jun;57(539):449-54.

¹⁷ Doran T, Kontopantelis E, Valderas J, Campbell S, Roland M, Salisbury C, Reeves D. The effect of financial incentives on incentivized and non-incentivized clinical activities. Evidence from the UK's Quality and Outcomes Framework. *British Medical Journal* (provisional acceptance)

¹⁸ Dusheiko M, Doran T, Gravelle H, Fullwood C, Roland M, Does the quality of diabetes management in family practice reduce unplanned hospital admissions? *Medical Care* 2010 DOI: 10.1111/j.1475-6773.2010.01184.x

¹⁹ Dusheiko M, Doran T, Gravelle H, Harrison M, Sutton M, Roland M. Impact of financial incentives on emergency admissions for ambulatory care sensitive admissions (in preparation)

²⁰ Doran T, Fullwood C, Kontopantelis E, Reeves D. Effect of financial incentives on inequalities in the delivery of primary clinical care in England: analysis of clinical activity indicators for the quality and outcomes framework. *Lancet.* 2008 Aug 30;372(9640):728-36.

²¹ Smith J, Mays N, Dixon J, Goodwin N, Lewis R, McClelland S, et al. A review of the effectiveness of primary care-led commissioning and its place in the NHS health

foundation. 2004.

www.health.org.uk/publications/research_reports/effectiveness_nhs.html.

²² Mays N, Mulligan J-A, Goodwin N. The British quasi-market in health care: a balance sheet of the evidence. *J Health Serv Res Policy* 2000;5:49-58.

²³ Propper C, Croxson B, Shearer A. Waiting times for hospital admissions: the impact of GP fundholding. *J Health Econom* 2002;21:227-52

²⁴ Wyke S, Mays N, Street A, Bevan G, McLeod H, Goodwin N. Should general practitioners purchase health care for their patients? The total purchasing experiment in Britain. *Health Policy* 2003;65:243-59

²⁵ House of Commons Health Committee. Commissioning. Fourth report of session 2009/10. Volume 1. Stationery Office, 2010.

www.publications.parliament.uk/pa/cm200910/cmselect/cmhealth/268/268i.pdf.

²⁶ Harrison S, Checkland K, Coleman A. Practice-based commissioning in the English National Health Service: evidence and prospects. In: House of Commons Health Committee. Commissioning. Volume 2: oral and written evidence. Stationery Office, 2010; 86-90. www.publications.parliament.uk/pa/cm200910/cmselect/cmhealth/268/268ii.pdf.

²⁷ Roland M, Rosen R. Healthcare reform: the English NHS embarks on controversial and risky market style reforms. *New England Journal of Medicine* (in press).

²⁸ Laurent M, Reeves D, Hermens R, Braspenning J, Grol R, Sibbald B. Substitution of doctors by nurses in primary care. *Cochrane Database Syst Rev*. 2005 Apr 18;(2):CD001271.

²⁹ Griffiths P, Murrells T, Maben J, Jones S, Ashworth M. Nurse staffing and quality of care in UK general practice. *British Journal of General Practice* 2010; 60: 36-48.

³⁰ Wagner E, Reid R. Are continuity of care and teamwork incompatible? *Medical Care* 2007; 45: 6-7.

³¹ Guthrie B, Wyke S. Personal continuity and access in UK general practice: a qualitative study of general practitioners' and patients' perceptions of when and how they matter. *BMC Family Practice* 2006; 7: 11

³² Richards S, Pound P, Dickens A, Greco M, Campbell J. Exploring users' experiences of accessing out-of-hours primary medical care services. *Quality and Safety in Health Care* 2007; 16: 469-77

³³ Walshe K. Reorganisation of the NHS in England. *BMJ* 2010;341:c3843

³⁴ Smith J, Walshe K, Hunter D. The reorganisation of the NHS. *British Medical Journal* 2001; 323, 1262.

³⁵ Oxman A, Sackett D, Chalmers I, Prescott T. A surrealistic meta-analysis of redisorganization theories. *J R Soc Med* 2005; 98: 563-8.

Health Care in The Netherlands

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Summary of the health care system

Dutch health care has a lead by primary care, since the introduction of the 'Sick Fund' law in 1941. From that time on, personal listing of people with a family physician (FP) is the guiding principle. Until 2006, financing of health care was based on non-for-profit Sickfunds to which patients paid an income-dependent subscription and received access to health care through their FP. This primary care lead has remained in place in the 2006 revision of the health care system that introduced *private* insurance for all [1]. FPs are the point of entry for people to contact health care. Specialists and hospital care can only be accessed after referral by the FP. The ideology of primary care lead is reflected in the reality of daily practice: more than 95 % of all episodes of care are completely covered in primary care, and FPs remain actively involved in the management of the remaining part [2]. Individual health care is responsible of 25% of the decline in premature mortality, contributing slightly more than collective prevention [3].

Table 1 summarizes key data of family practice access, number of contacts, referrals.

New models of clinical care, including panels and out of hours services

The guiding principle behind the 2006 health care system revision was to introduce a market system with competition between providers. Insurers are considered the patient's broker in negotiating the best care for the best price, thus containing health care costs. Until now, health insurers and politics have focused primarily on secondary care for this. They have not enforced competition between FPs, which is regarded an ineffective policy. For a few chronic diseases, such as diabetes and COPD, large cooperatives consisting of up to 500 FPs have been established to negotiate with insurers on quality objectives, the markers of quality in the actual care provided, and additional payment in return of its delivery.

A strong point of the current Dutch health care system is that evidence based health care policy [4] has prevailed after the introduction of market oriented reform.

Universal coverage and *primary care lead* have also been preserved in this reform.

This comes forward in the organizational principle of personal listing of patients panels with an FP or a small group of FPs, that has remained the organizational principle in the reformed health care structure. The average list or panel size is 2,250 – 2,500 for a full time equivalent FP and comprises of people living in defined

geographic areas. As the list defines the population under care, their needs can be monitored and priorities of care and prevention established. This comes back in the actual composition of the practice team, the specific tasks practice nurses engage (elderly; cardiovascular prevention; mental health), and in the collaborative relations developed with other players in the region. Insurers are in a position, under the new structure, to provide targeted funding for such activities. This is also true for the local council with regards to public health aspects of these collaborations.

This means that current health care can capitalize on the investment in family medicine and primary care over the last three decades. The interactions between academia and the field have made family practice the leading force in evidence-based medicine, resulting in a strong societal position. With this, the traditional concepts of 'equity and access', 'person centered care', 'continuity of care' and the 'patient friendly' small scale environment have remained in place and received a modern face lift, through person centered electronic medical records and evidence-based guidance of care. This way, the 2006 health care reform has become an 'innovation by conservation'.

The solidarity in the health insurance system is the reflection of a common feeling established in society. Any reduction of the package covered by the basic insurance triggers heated political and societal debate.

Out of hours access to primary care, and the quality of the services provided, are critical aspects in a primary care-led health care system [11]. Since the turn of the 21st century, almost all (95%) family practices have organized themselves in regional 'out of hours' consortia. Through these consortia, FPs and their practice staff serve on a rotation during evenings, nights and weekends for telephone consultations, practice visits and home visits. This organization secures around the clock availability of primary care, with access to adequate support facilities – including access to the patient's electronic medical record.

Primary Care Workforce

Table 2 summarizes the primary care workforce. FPs have always been the medical professionals in primary care. Until recently, most family practices practiced single handed, but the last years have seen a rapid change to group practices and health

centers. Despite their prominent role in the system, FPs have, in comparison to other countries, always taken care of a relative large population, with an average list or panel size of 2,250 – 2,500.

A central role in the practice is for the practice assistant. This was developed from an initially administrative support staff into a professional support force. Practice assistants perform routine diagnostic and therapeutic interventions, and serve as the patients' point of contact for health education and the booking of practice visits. On average there is a practice assistant for every FP.

Practice nurses are higher trained professionals who increasingly contribute to the care delivery in the family practice. Initially, their involvement was restricted by insurers- to the care for chronic diseases and prevention, such as diabetes, COPD care, and cardiovascular risk management and smoking cessation. More recently, the insurers allow practices to focus on the actual contribution to the specific needs of the practice population and their focus may vary from frail elderly, to young children and families. The insurers had initially restricted the availability of practice nurses to 1 for 5 FPs, but more recently a more extensive involvement is accepted, provided that practices develop plans to justify their employment. Mental health is currently the fourth focus of their employment, next to prevention, management chronic diseases and care of the elderly. This highlights an important element in the new system: practices are accountable for their services, and can benefit from innovations in their packages on offer.

This marks a gradual shift from individual professionals to the primary care team (table 2). This comes forward as well in the professional development and continuous medical education, that are more and more directed at the interface between FP, practice assistant and practice nurse, and others. A comparable shift can be seen as well in the quality structure that the Dutch College of General Practitioners (DCGP) has developed. The DCGP focused initially on the development of guidelines [5], for the support of individual FPs, but specifies more and more the contributions of other disciplines as well. And since 2006, *practice accreditation* [6] is the most comprehensive assessment of the performance of the entire practice team, in terms of the structure, process and outcome of care provided.

Other professionals in the community are:

- district nurses and nurse-assistants;
- midwives – deliveries in primary care account for 40% of the births, of which the large majority are supervised by a midwife. The midwife is responsible for the supervision of the pregnant woman from the 16th week onwards up till 10 days after delivery;
- physiotherapists ;
- community pharmacists. Community pharmacists and the family practices in the same catchment area often collaborate by jointly define preferred drug choices for common health problems. This 'pharmaco-therapeutic council' is to promote cost-effective and rational prescribing;
- psychologists, social workers and other allied health professionals (dieticians; podotherapists; speech therapists) are present in most communities, depending on the needs of the population.
- links with occupational health are a recent development to bring work and the work environment into the equation of health and wellbeing.

Outcomes and Accountabilities

With the aging of the population, the increase in the number people with chronic (co)morbidity, and in particular the frail elderly present a challenge for health care. An additional aspect of the changing demography are the people migrated to the Netherlands, from Eastern Europe, the Middle East and Asia. By now, one fifth of the Netherlands population consists of non-native Dutch [1]. For a durable health care, the self-responsibility of people for their own health and better use of prevention is seen as essential. Mechanisms to introduce initiatives to promote prevention are collaborations between municipal public health authorities and local primary care teams. Based on needs of the local population, comprehensive plans are developed for individual and collective preventive approaches. These vary from wellbeing of (frail) elderly, to the promotion of physical activities and healthy eating of children and adolescents.

Practice Change Facilities

With the introduction of 'market incentives' and the private insurance payment for care, insurers have been granted freedom to address population needs and award

practice innovations. This has facilitated the introduction of local practice initiatives and change practice. This resulted in more diagnostic and surgical procedures in Primary care (e.g. vasectomy, ultrasound) and the delivery of chronic care contracted by cooperatives of large groups of family practices, and also in preventive activities such as coaching smoking cessation and giving travellers' advice.

Incentives to Change Quickly

This system has the potential to avoid delays in implementing change rapidly. Focus on the local community is regarded the best guarantee that (primary) care can respond quickly to the actual needs. For this, the municipal authority has been given the authority over the public health budget [1], while the health care insurer under the market principles is expected to pro-act best practice for their individual insureds.

Has Payment for Primary Care Changed to Support New Models?

Personal health care is covered through 'basic health insurance' and includes essential curative care that has stood the test of efficacy [1,4, 5]. All insured contribute a flat rate premium and an income-dependent contribution. Health plans are by law required to cover family practice costs. Health insurers pay family physicians in part for patients being on their list ('capitation fee'; 70% of the overall practice income), in part as items for service. Specialists and hospitals are paid for the actual services that have been provided through a Diagnosis and Treatment Combination (DRG) [1].

Strategies for Quality/Safety

With the introduction of its program of guidelines development and implementation in 1989 [5], the DCGP has taken an important lead for strategies to improve quality and safety. In collaboration with the institute of health care improvement that represents the other medical disciplines [7], this has resulted in a strong professional autonomy in the field of quality and safety. As a consequence, professional innovations have been able to drive the flow of payment, and challenged the insurers to follow innovations with financial incentives. As a consequence, there has been limited 'smart' practice changes that follow the money for the sake of the money alone. following

The DCGP guideline program has been the foundation of a comprehensive quality improvement program since more than twenty years. The program includes to date 90 guidelines for FPs, interdisciplinary guidelines (within primary care and for primary care – hospital care collaboration), collective and individual programs for continuous medical education and professional development, patient information, an electronic prescription system, ICT support, and a system to support appropriate referral .

An important parallel development in the success of this program has been the investment in university departments and their practice-based research networks.

This made it possible to secure a consistent primary care research output [8].

Through the MRC fund ‘common health problems’, research is directed to problems that matter in primary care [9]. The collaboration of the DCGP and academia has resulted in an institute of quality in health care [10].

The extensive data of primary care and the possibility of linking these to public health data play an important role to generate local practice population specific innovations.

As an extension of the guideline program, the DCGP developed in 2006(?) the ‘practice accreditation’ program [6] . This is an intensive review of the practice’s structure, process and outcome of care, assessed against prevailing external criteria/standards. From feed-back reports practices develop programs for quality improvement. The accreditation process takes usually three years to complete. The focus is the practice team, not individual providers. To date, 40% of the family practices in the country have successfully completed their first cycle and been accredited.

Information Technology

All family practices use an electronic medical record, and due to the Dutch College harmonization policy in the early 1990-s, there is a high consistency between various record systems. Every system operates on the coding system of the International Classification of Primary Care (ICPC) [12]. This makes it possible to structure data exchange (referral letters) and to make ‘artificial intelligence’ available into the practice visit and patient encounter. In particular DCGP guidelines and recommendations for rational pharmacotherapy and electronic prescription systems are used in a standardized way in the medical record.

Shared Support Systems for Multiple Clinics, Population or Region

In the past 5 years many experiments have linked EMR of primary care, to hospitals, and community pharmacists. Citizens have been asked by the government if they consent to exchange of medical data between professionals. At this moment, privacy regulations and political debate, hamper a quick introduction. Referrals from FP to hospitals are done electronically by using an internet based interface, making waiting lists transparent and choice better possible. Return information from hospital specialists to family physicians is also handled electronically in most cases.

Failures and Modification of Plan

The 2006 health care restructure was accompanied by high expectations of 'market mechanisms' taking care of the financial strains of health care. Five years into the new system, the jury is still out if this is happening or not. There are no indications yet, that the system is better coping with the challenges of rising health care costs and health policy has been directed at containment of market effects, rather than at its full employment.

The introduction of a more market driven policy resulted initially in a growing number of independent *clinics*, mostly focusing on a single, specific health problem (coughing child; acne; menopause; phlebology; prostate, etc.). These clinics are attractive mainly to enlarge their market share. As it bypasses on a large scale, its net effect is a rise of total healthcare costs.

This emphasizes that it the main source of expanding health care costs is in particular secondary hospital care. Policy has been directed, as a consequence, to put barriers on such private initiatives and to preserve the referral and gate keeping function of primary care. It also stresses the impact of 'the market' to supply services, rather than respond to needs. This is at odds with the promotion of cost effective, evidence-based care. Thus far, hospital care has been the main creator of such supply. But although no general effects have thus far been documented on primary

care and the public, there is anecdotal evidence that it has an impact there.

Consumerism (*'I want it now, I want it all, because I pay'*)

In addition, there are (grave) concerns of the lack of coherence in the system: even though the quality of the various disciplines, and in particular family medicine, is high, ultimately population health is determined by their ability to collaborate and interact [13]. Rifts exist between primary care and secondary care as a report on the poor outcome of maternity care illustrated [14]. But also lack of cohesion between public health and individual care health care and welfare and within primary care itself result in loss of effectiveness for the health of people and the population.

Things the US hasn't Considered in Reform

Table 1
Key data of performance family practice in Dutch health care [2]

performance	% practice population	% of Contacts	Number per patient/y.
Contact with primary care (1 or more/y)	77		6
Practice visits		74	
Home visits		8.5	
Telephone/mail contacts		18	
Diagnostic interventions		6	
Diagnostic procedures through primary care laboratory		3	
Advice <i>without</i> prescription		1.3	
New Referrals specialist care		1.6	
New Referrals within primary care		2.5	
Prescriptions		57	5.8

Table 2 Dutch Primary Care Workforce (2007) [1]

Discipline	Numbers	Pro Capita
Family Physicians	8,673	
<i>Family Physicians in health centers</i>		
Practice Assistants		
Practice Nurses		
District Nurses		
Midwives	2,265	
Physiotherapists	18,355	
Pharmacists	2,825	
Psychologists		

References

1. Schäfer W, M Kroneman, W Boerma, M van den Berg, G Westert, W Devillé, E van Ginneken. The Netherlands – Health system review. *Health Systems in Transition* 2010; **12**:1-229
2. Cardol M, Dijk Lvan, Jong JD, Bakker DH de, Westert GP. Tweede Nationale Studie naar ziekten en verrichtingen in de huisartspraktijk. Huisartsenzorg: wat doet de poortwachter? Utrecht, Bilthoven: NIVEL, Rijksinstituut Volksgezondheid en Milieu, 2004.
3. JW Mackenbach. De veren van Icarus (the fethers of Icarus). Erasmus University Rotterdam, 1992.
4. Health Council of the Netherlands. European primary care. The Hague: Health Council of the Netherlands, 2004; publication no. 2004/20E. ISBN 90-5549-549-2. Also:
<http://www.gezondheidsraad.nl/sites/default/files/summary%20primary%20care%20final.pdf> (accessed 01-02-2011)
5. Dutch College Guidelines
6. Program Practice Accreditation
7. Dutch Institute for Health Care Improvement CBO. <http://www.cbo.nl/en/> (accessed 08-03-2011)
8. The Netherlands School of Primary Care Research (CaRe).
<http://www.researchschoolcare.nl/> (accessed 08-03-2011)
9. The Netherlands Organization for Health Research and Development (ZonMw). Program Common diseases.
<http://www.zonmw.nl/en/programmes/all-programmes/common-diseases/> (accessed 08-03-2011)
10. Institute of Quality in Health Care, Radboud University Nijmegen.
<http://www.wokresearch.nl/ContentFront/DefaultStart.aspx> (accessed 08-03-2011)
11. Out of Hours Services – Paul Giessen publications??
12. Wonca International Classification Committee. International Classification of Primary Care, ICPC-2. Second edition. Oxford, Oxford Press, 1998.
13. Starfield B. Is primary care essential? The Lancet 1994;
14. van der Velden K.
- 15.
- 16.

I LIVE PC New Zealand

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Part 1: Overall health system design in New Zealand

New Zealand (NZ) has a single-payer, tax-funded, central government-driven health system. Government funding makes up 80% of health expenditure and 9.2% of the gross domestic product is spent on health in total.¹ Health funding is distributed on a population basis to 20 geographically-based district health boards (DHBs), which fund and contract for a wide range of primary and community care services and which provide hospital and some community services. Primary medical care is subsidized (partially funded) by government for all New Zealanders, with patients paying co-payments as well, while public hospital services are free. Primary medical care is largely provided by general practitioners (GPs, or primary/family care physicians) in private practice, with some non-government not-for-profit organizations also delivering primary and community care services. The hallmarks of primary care in NZ are first contact, continuity, coordination and comprehensiveness of care, which is patient and family-centered and culturally appropriate.² GPs are the point of first contact and 'gatekeepers' into other primary care services (eg, prescribing medicines, ordering tests) and the secondary health care system. NZ GPs have always held a gate-keeper role to other health services, with the exception of emergency departments at public hospitals, where patients can self-refer and receive free care, even when this is more of a primary care than of an emergency nature.

Alongside the tax-funded health system, people can purchase private health insurance to pay for elective procedures and primary care copayments. This makes up about 5% of total expenditure,³ with around 30% of the population having such insurance. NZ also has a no-fault accident compensation (ACC) system which funds all accident-related care, with patients paying co-payments here as well. ACC makes up about 9% of total expenditure.³

NZ's heritage is as the world's first welfare state, the first country to give women the vote (in 1893),⁴ and the world's first attempt at a national health system in 1938 "*with privately owned fee-for-service primary medical services, with varying levels of subsidization, operating alongside a fully subsidized and government-owned public hospital service*".⁵ NZ is judged the third best place to do business with respect to transparency of processes and minimal corruption.⁶

NZ has a one hundred year legacy of primary health care crafted from social democratic roots, with societal expectations of significant state investment in universally funded and accessible health care. However, NZ also has a history over the past two decades of substantial and ongoing restructuring of its primary care sector. This has been variously driven by the sector itself, and by government policy.⁷ One of the more prominent features in NZ's changing environment has been the proactive role of GPs.

Prior to 1980: The independent general practitioner

For most of the 20th century NZ primary care was provided by GPs located throughout the country. These doctors owned their own practices and often worked in solo or two-doctor practices. Exceptions were the Special Medical Areas (SMAs) serving isolated and predominantly Māori populations, staffed by government-salaried GPs and community nurses linked to community hospitals.⁸ These had mostly disappeared by the 1960s, with a few notable exceptions such as the Hokianga SMA. Practice nurse support was common, with a practice nurse subsidy introduced in 1970. GPs were family doctors providing comprehensive 'cradle to grave' 24/7 care. The government's General Medical Subsidy (GMS) was introduced in 1938 to help reduce patient fees, but successive governments had failed to increase the GMS to keep up with inflation – in fact in 1986 it actually was reduced with the introduction of Goods and Services Tax. By 1999 GPs typically derived *"only about a third of their income from the public purse, mainly for subsidised visits by children and people on low incomes"*.⁹

1981 to 1990: Diversification in primary care

In the 1980s, GPs increasingly were employing receptionists and practice managers (traditionally these roles had often been fulfilled by their wives) as well as practice nurses. There was a steady feminization of the GP workforce and there were some early adopters of information technology (IT). Combined with increasing overhead costs, the patients' fee-for-service payments became the major component of the GPs' revenues, and evidence was growing of low income patients being unable to afford to see a GP.¹⁰ GPs commonly reduced or waived fees for patients in financial need.¹¹ The 1980s also saw the rise of third sector

organizations in providing primary care services for vulnerable populations, particularly union health centers, with salaried GPs.¹²

By the end of the 1980s, there was increasing fragmentation of care, with the rise of other 'first contact' services such sexual health and family planning clinics and alcohol and drug addiction units. Autonomous midwives provided fully funded antenatal care and deliveries and some palliative care was provided by hospices. The late 1980s also saw the rise of accident and medical centers providing convenient episodic acute care. Information often was not shared between providers, resulting in a loss of co-ordination of care. GPs worked autonomously with little opportunity for ongoing education and no systematic processes for quality improvement and no organization amongst practices.

1990 to 1999: Independent Practitioner Associations

In response to major structural reforms of the NZ health system in the early 1990s, including the establishment of purchasing authorities who would now contract for a wide range of services from providers,¹³⁻¹⁷ GPs formed themselves into a series of primary care networks, the most common being Independent Practitioner Associations (IPAs), which introduced a meso level of support for primary care.¹⁸ By the end of the decade, over 80% of GPs were members of such networks.¹⁹ These networks were pivotal to 'organized primary care'. Being doctor-led, they were living examples of 'clinical governance', promoting computerization and networking, clinical guideline use, various public health programs, holding budgets for prescribing and laboratory testing, and engaging in comparative-effectiveness research and dissemination.^{9,20,21} Because payment of government subsidies was electronic, practices invested in IT. Innovations introduced by IPAs included peer-led continuous medical education (CME), specialized nurses working across practices, using data for personalized feedback on clinical performance, and the start of quality improvement initiatives.²² The response of practices to this organization was a reduction in variation in practice and a shift from autonomy of practice to incorporation of peer review.²³

In 1994, a formal national network of community-driven and -governed primary care services was established (Health Care Aotearoa), including union health centres, tribally based Māori and community-based primary care providers, to support high need populations.¹²

2000-2009: Primary Health Organisations

A new government sought to introduce Alma-Ata inspired primary care reforms with the introduction of the Primary Health Care Strategy (PHCS) in 2001.²⁴ This aimed for a primary care-led health system *“with a greater emphasis on population health and the role of the community, health promotion and preventive care, the need to involve a range of professionals, and the advantages of funding based on population needs rather than fees for service.”*²⁴ The government had three key aims: (1) to formally enroll patients with a GP; (2) to reduce patient co-payments to see a GP; and (3) to improve services for patients with chronic conditions and with access difficulties, and to promote population health.²⁵ Implementation was via Primary Health Organisations (PHOs), subsequently a key feature of the primary care landscape. PHOs were to be not-for-profit, to engage with their communities and to work to involve a wide range of health providers in their decision-making. The reforms also reintroduced into NZ universal primary care subsidies, via capitation to patients enrolled with the PHO.²⁶

Co-payments could have simply been reduced by increasing government subsidies to GPs, especially for more deprived patients, and many IPAs had progressively moved to address aspects of (3). However, instead of working to further develop and augment the IPA developments, the government initially sought to side-line the medical profession and IPAs in developing PHOs. Arguably, this was due to an inherent anti-private business, anti-medical dominance stance in primary care. This resulted in low trust amongst IPA members in the government. Consequently, PHO implementation was politicized, hasty and difficult, with many doctors seeing IPAs as their organizational preference. With infrastructure already in place, IPAs remained an important part of the landscape, establishing themselves as PHOs, linking with other groups to become PHOs, and providing ‘management support’ services on contract to PHOs.²¹

The best PHOs have been well-run and would be the envy of primary care providers in any country. Some, however, appear to have a limited role beyond passing on funding to their member practices.²⁷ Although there was a large injection of government funding into primary care, the subsidies came with government control of some fees in very low cost access practices which receive extra funding to keep fees low, and limits on fee increases in other practices. Because governments have traditionally never maintained the real value of subsidies, the only way to maintain levels of revenue is either to increase patient enrollee numbers (resulting in shorter consultations in all likelihood), increase fees, or cut costs. Furthermore, despite the population-based vision, in reality the vast majority of consultations are likely to still be reactive, rather than planned and proactive.

The drive towards community governance and limits set for fee-for-service co-payments imposed on GP-owned private practices may have disincentivized some GPs to provide targeted assistance to at-need patients (the “*rob Peter to pay Paul*” approach) and disengaged them from driving innovation. The capitation formula supported the allocation of much new funding to the more affluent healthy population, who it could be argued need to attend less often, and is arguably not sufficiently weighted for high need. It is therefore unclear whether a strategy aimed at reducing inequalities in health had that effect in practice. The change from GMS to the capitated model of general practice funding did not change the transactional nature of GP 15 minute consulting. Simply changing funding mechanisms does not automatically change ingrained behaviours, and this is still a largely unrealised opportunity for practice teams.

PHOs perhaps could have thrived if they had captured the intersectoral space, focusing on building linkages with other sectors involved in the broader determinants of health and complementing the work of general practice.

2010 to the future: Integrated family health care

The present government (elected in 2008) sees many PHOs as being too small and ineffectual, reflecting a wide-spread view within the sector itself.²⁸ It has ordered mergers. The number of PHOs currently has reduced from a high of around 81 to 50 or so, with perhaps an eventual 40

expected. The government has also commissioned nine groups to further develop primary care, including through the devolution of secondary care services to primary care and the encouragement of better integrated service delivery involving a wider range of primary care providers. For example, the government has been seeking the development of Integrated Family Health Centers which will involve larger groups of providers offering 24/7 care for a geographic population. Some PHOs and practices may be subsumed within these Centers.

The current reforms are focusing on expanding clinical networks, drawing on GPs, nurses, community pharmacists and other primary care providers to deliver services through more teamwork. The environment is more permissive, with increased clinical governance and engagement occurring. The primary / secondary interface could blur with more choices for patient care between home and hospital. Structures and funding arrangements for the proposed reforms have not been explicitly outlined, providing both opportunities and confusion. There is room for flexibility with proposed hubs in urban areas providing practices with a range of diagnostic and management services within the community and shared information between providers. Patient enrolment would continue to be with practices with transfer of care back and forth to trusted colleagues. Rural centers may combine local practices and allied services. The hoped-for horizontal and vertical integration of services poses benefits and threats. GPs risk losing 'generalist' skills and consultants their 'specialist' skills, and the centralized 'one stop shop' poly-center approach could lead to the loss of some small services dotted around the country.

The government's current slogan is *"better, sooner, more convenient"* health care,²⁸ which requires a change in the funding model to avoid the tyranny of the 15 minute consultation. One way forward may be to introduce a capitation payment from patients as their contribution to costs, perhaps collected by DHBs, allocated equitably (based on need to practices) and including fee-for-service payments to ensure key targets are met (eg, immunization). This would offer the blended payment system that many believe to provide incentives to keep costs down and provide good care.²⁹ Capital investment in infra-structure is required and whether ownership of this infra-structure is by government, the networks or private / public partnership needs to be determined.

The government has also announced a Whānau Ora strategy where selected providers will integrate health and social services for high needs Māori people, with a focus on Māori self-determination and flexibility to provide services to targeted populations.³⁰

In sum, the sector continues to evolve with successive governments introducing new policies and processes. Perhaps the greatest lost opportunity was the failure of the 2000 government to work with GPs on a mutually agreeable strategy for building upon developments in the 1990s. NZ has a strong primary care system, albeit functioning within a complexity of organizational arrangements.³¹ Had the government worked with GPs more in the 2000s, NZ may have, by 2011, had an even better system with more consistent and stable patterns of organization. In particular, perhaps too much attention has been on structural reform, rather than how services are actually delivered to patients.

However there is certainly a sense of opportunity for 2011 and beyond. There is a huge focus on primary care as the way forward, with political ideology, evidence, and economic and human resource constraints all pushing in this direction.

Table 1 Failures and modifications of plans in NZ moving to current clinical models, facilitation schemes, and regional health infrastructures

Era		Positive aspects	Negative aspects, failures
Pre-1980	Independent general practitioners	<p>Patient-focused and family-focused</p> <p>Good access</p> <p>Continuity of care including after-hours, antenatal care and delivery, palliative care</p> <p>First contact including family planning, sexual health, accident & medical</p> <p>Professional ethics</p> <p>Practice nurses</p>	<p>Isolated</p> <p>No evaluation of performance</p> <p>Affordability of services for patients deteriorated over time as government subsidies failed to keep up with inflation</p>
1980-1989	Diversification of services	<p>More patient choice</p> <p>Increasing employment of receptionists and practice managers</p> <p>Early adoption of IT</p>	<p>Lack of information-sharing & service coordination</p> <p>Little opportunity for ongoing education</p> <p>No systematic processes of quality improvement.</p> <p>Increasing fee-for-service patient co-payments with further access issues for vulnerable patients</p> <p>GPs moved from delivering obstetric services as midwives took over this role</p> <p>Development of entrepreneurial A&M clinics with no continuity of care or sharing records</p>

1990-1999	Independent Practitioner Associations	<p>Networking</p> <p>Innovation</p> <p>Quality focus including through peer review</p> <p>Budget-holding allowing tools to be applied to other quality initiatives</p> <p>Ability to measure variability between practices, between ethnicities etc</p> <p>Driving own education agenda</p> <p>Increase in team work</p> <p>The organization of general practice enhanced the GP voice in the system</p> <p>Professional satisfaction</p>	<p>Little community involvement</p> <p>Variable delivery</p> <p>GP model (not inclusive)</p> <p>Failure to report and evaluate results and to roll out good programs nationally</p> <p>Competition between networks</p> <p>Failure to share innovations</p> <p>Profit management issues not addressed</p> <p>Market model with funder/provider split, leading to competitiveness and fragmentation of care</p>
2000-2009	Primary Health Organisations	<p>Increase of funding into primary care</p> <p>Recognition of PHC being heart of health system</p> <p>Strategy based on Alma Ata</p> <p>Capitation & better blend of payments</p> <p>Community involvement</p> <p>Met need where weak or absent IPAs</p>	<p>Poor implementation, ideologically driven</p> <p>Denigration of clinical leadership</p> <p>Disengaged clinicians</p> <p>Muddled thinking about population versus individual health (instead of both)</p> <p>Did not engage population</p> <p>Did not achieve true PC integration</p> <p>Reduction in IPA knowledge about budget-holding</p>
2010-future		<p>Tentative attempts to address failings</p> <p>Government permissive about integrated care</p>	<p>Sector change-weary</p> <p>Early adopters burnt out</p>

		Existing infrastructure can act as building blocks	<p>Loss of institutional memory about clinically-led networks</p> <p>Practical infrastructures not available (bricks & mortar)</p> <p>Contracts lead to dis-incentivization</p> <p>Fear of loss of autonomy</p> <p>Held back by fees policy (15 min appointments)</p> <p>No nurturing of leadership</p> <p>Likely future restructuring into fewer DHBs and PHOs</p> <p>Possible development of Alliances to plan and fund services</p>
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Part 2: Responses to specific questions

Primary Care Models

NZ has moved from independent autonomous practices providing individual care to multi-disciplinary networks working together with management support, with a combination of clinical, community and corporate governance. The current environment has a permissiveness for diverse models, although NZ has been slow in developing the role of patient self-management, and gathering and responding to patient feedback.

There is the promise of Whānau Ora, a flexible approach aiming to bring together both health and social services focused on Māori self-determination targeted to family and community needs. Whether this will deliver is yet to be seen.

For a country with a population of four million, our health system is complex. There is a Ministry of Health (MOH), a National Health Board (NHB), 20 District Health Boards (DHBs), Management Service Organisations (MSOs) and 50 Primary Health Organisations (PHOs) below which sit our general practices.

Infrastructure (clinical, system, community)

NZ was an early adopter and is a high user of health information technology (IT). The initial use was for administration and payments, hence practices invested early on in practice management systems (PMSs). Within networks, collecting, analyzing and feeding back data has been an effective tool for benchmarking between peers. The PMS is also used for recalls (such as cervical screening and immunization), and over time has developed further for other functions, such as electronic prescribing and laboratory results then on to clinical records and decision support tools. The PMS had to adapt to also function as an electronic medical record (EMR), a task for which it was not designed. NZ is now burdened by this prior innovation.

Work is needed to facilitate multi-disciplinary data exchange at the consultation level, GP to GP transfer of records, the sharing of records with other practitioners such as pharmacists, and compatibility of IT systems. There is a move towards virtual specialist consultations with

secondary care colleagues having access to the patient electronic records, and also towards patient access to their own medical records with functionality such as making appointments and monitoring their own health. But, unlike other countries, no research has been done in NZ on what patients want from such systems.

The vendors of PMSs are funded by licensing fees paid by practices and the Ministry of Health. The government should intervene lightly to require consistency between systems and ask for improved data on care processes and outcomes. Disease classification and coding need to be made uniform to allow meaningful use of data and the data need to be made more accessible for research purposes.

On the plus side, NZ has a good systematic approach to preventive care such as screening, recall and cardiovascular risk assessment, augmented with decision support tools. All patients have a unique identifier (National Health index or NHI) and geocoding allows practitioners and researchers to drill down and map to the individual household level. However, we are data rich, information poor: geocoding is used for funding not for targeting health services and there is huge potential for using reliable data indicating high quality outcomes to better understand the best performing models of service delivery.

Creating and Sustaining Change/Transformation

IPAs were successful because they were clinically-led change management organizations. Clinician-led approaches with peer influence and modeling has helped practitioners embrace change. The IPA model can be likened to a moving umbrella under which practitioners shelter. The people in the front are encouraged to step out, and as the umbrella moves, so the people at the back have to advance to stay under its protection. The IPA movement occurred in an era prior to which little had changed in primary care in 40 years. One of the drivers was perceived external threats, but also the intellectual challenge and excitement to allow clinical leaders to step forward. Along with the networking and peer support gained through the development of IPAs, there was also the unforeseen but fortuitous gain of collective strength.

Quality and Safety

At a local level, in the 1990s, early network initiatives were led by the Regional Health Authorities contracting for the achievement of practitioner-determined targets for activities such as recording ethnicity and smoking status, and keeping registers and recall systems for cervical smear, mammography, immunization and well child checks. Supported professionalism in the form of peer review and benchmarking is an effective tool to reduce provider variability.³²

General practice training programs were developed for residents as a pathway to membership then fellowship of the Royal New Zealand College of General Practitioners (RNZCGP). The College also developed the *Aiming for Excellence* Cornerstone practice accreditation supported by central government.³³

At a national level, there has been a number of government initiatives to improve quality of care, including the appointment of a Health and Disability Commissioner, the establishment of a National Health Board (NHB) in 2009 charged with improving the quality, safety and sustainability of health care, with subcommittees including the IT Health Board to provide leadership on the implementation and use of information systems and Health Workforce NZ to co-ordinate the planning and development of the country's health workforce. A Health Quality and Safety Commission recently has been set up to work with clinicians and providers of health services to improve the quality and safety of services. DHBs report sentinel and serious events. The Centre for Adverse Reactions Monitoring (CARM) is national monitoring center for adverse reactions to medicines, vaccines, herbal products and dietary supplements and the Intensive Medicines Monitoring Programme undertakes prospective, observational, cohort studies on selected new medicines.

ACC also monitors practitioner performance by measuring performance against service specifications (in contracts, regulations and associated guidelines), using benchmarks and measuring the extent of provider variation to encourage best practice.

What is still lacking are systematic ways to feed information back into the health system, and mechanisms to incorporate the patient's experience. NZ is still immature with respect to addressing health quality and safety.

PHC academics have major barriers to accessing practices for audit data and for research. Unless a practice actively chooses to opt off, all collated anonymous practice data should be made available for analysis. Patient registration with a practice should include consent to use unidentifiable data constructively, again unless patients actively opt off. This would increase our knowledge in relation to use of and quality of care and enable identification of the key characteristics of high performing models of care.

Payment/Incentives

The egalitarian nature of NZ society and the fact that it is not a large country means that changes can occur relatively quickly. However, at times such rapid reform has not always been successful. Over the past 20 years, NZ has moved to a blend of payment types, with funding from various sources: salary, capitation, and performance payments in the health sector from PHOs to practices; out-of-pocket payments (fee-for-service) from patients, private insurance and ACC, and targeted assistance such as Care Plus, which provides additional capitation funding to target the 5% of the enrolled population who have the highest needs. This additional funding provides low or reduced cost access to continuity of care that includes a Care Plan jointly developed with the patient, on-going support and assistance with self management. Unlike the UK, perhaps NZ did not make the most of new funding to require the changes it wants to see in service delivery. Increased funding can smooth the way and support transition but how health care is funded is important as well as how much is funded.

There is value in blended payments but these are not always combined in a thoughtful effective manner, for example to provide coordination of care, and the balance between different payment types needs to be right. Payment should be for outcomes rather than outputs. More

recently, we have gone back to funding that is in silos, reducing the flexibility that providers have to put the funding where it is able to do the most good and increasing the planning and reporting requirements, even for quite small amounts of funding. Networks were successful change managers because they were budget-holding for some services. The networks were supported by a relatively mature clinical workforce from whom strong leaders emerged and earned the mandate as trusted colleagues who were voted into positions of governance. Ownership is also important, both emotional (people will be committed to change directed from bottom up) and financial (GPs who own their practices will put in the hours required to provide quality care); as practices are sold to investors in NZ, it will be interesting to see how the incentives to perform change as a result.

Networks drove quality, coordination, efficiency and accountability. They have also provided opportunity for local and regional experiments. Pockets of innovation were shown to be successful but often were not evaluated long enough or not taken up for national roll-out, and hence became lost opportunities.

Accountability is required of GPs, practices, management services organizations, PHOs and DHBs. Capitation requiring patient enrolment has facilitated accountability at the practice and PHO level. The current model of care allows for systematic measurements and benchmarking. However, measures tend to those requested by government, easy to measure or where there are available data. This means that they are measures of process rather than actual health outcomes. For example, the Diabetes Get Checked program records items such as numbers of eye, feet and HbA1C checks, resulting in mass customization of diabetes care rather than the systemization of care. Moreover, the focus has often been on diseases rather than on the overall health of patients.

Bpac^{nz} Ltd (Best Practice Advocacy Centre), an independent organization funded through contracts with Pharmac and DHBNZ, provides evidence-based, educational material on prescribing and tests and personalized feedback to GPs on their utilization patterns compared to regional and national data. Outliers in the data set can be detected, but on a national level

this may reflect variation in patient population more than variation in practice. Many IPAs also provide such feedback to their members, on behalf of PHOs.

The frequent changes to the NZ health system affects processes but outcomes are unknown. A move from indicators to value-based outcome measures is needed alongside increased trust in professionalism, rather than through a focus on selected process indicators. Primary care is more complex than procedural medicine which has discrete episodes of care with more proscribed outcomes to measure. Evaluation of global budget-holding (for laboratory services, pharmaceuticals, immunization, acute demand and general medical services) found greater flexibility, the enabling of the development of innovative practice, an emphasis on teamwork and increased practice nurse involvement.³⁴

However in the PHO development of the last decade, ideological considerations drove contracting rather than quality or safety, with the aim of disestablishing clinician-led organizations. Payments were siloed and there was low trust which did not encourage proactive and targeted care for high health need individuals. Function needs to come before structure – we need to look at the functionality required, the funding needed to achieve this and then find the appropriate structure for implementation. Changing payments will not be successful until there is a culture change.

Primary care workforce

NZ has a long tradition of practice nurses working alongside GPs, and their role has evolved faster in the last decade than that of GPs. Practice nurses have traditionally been under-utilized, although this has changed during the last decade but we still have some way to go in better using our nursing resources. There is a growing role for clinical assistants to liberate nurses. The network-based teams include a number of non-physicians including community workers, dietitians, podiatrists, opticians, community pharmacists, immunization coordinators and specialist nurses who may be based in a center but work across practices.

The economic rationalism of the 1980s produced mixed results. Offering incentives and contracts led to a culture of competition rather than cooperation. The introduction of government contracting resulted in disintegration - for example midwives and ambulance drivers do not operate as players within the primary care networks.

Scope of practice is a growing issue, and a number of health practitioners - including nurse practitioners, community pharmacists, midwives, podiatrists and opticians - are all positioning themselves to gain prescribing rights.

The manager at both the practice and the network level is playing an increasing role in primary care delivery. However, unlike the top-down approach of the hospital managerial structure, primary care managers work in partnership with clinical leadership.

Much more needs to be done to train the GP (and other PHC provider) workforce. Ideally all practices should be available to teach, providing GP experience for under-graduates and employing GP registrars (residents). There is limited funding for GP teachers but a major barrier is lack of infra-structure. Many practices do not have the necessary consulting rooms, computers and software licenses to take on trainees; further developments here require considerable financial investment, although the developing larger practices or integrated centers may facilitate training in future.

NZ graduates, often burdened with student debt, tend to move abroad for the higher salaries paid in other developed nations. There is a very high percentage of overseas trained doctors in NZ, and many of these being among the non vocationally registered 'general registrants' who also have training requirements, and are more likely to be itinerant.

Shared support systems for multiple clinics, population, or a region

NZ 's Ministry of Health (MoH) is a single national planner and funder of health services. There are national registers for record and recall for immunization and screening programs (such as cervical cytology and mammography), national payments processes, and national data collections which are managed by the MoH for the whole country. In two regions, large Alliances are currently being developed to plan services across the region, to devolve services from hospitals to primary care settings, and to develop more integrated service delivery. These Alliances are still very new and progress with them is slow.

DHBs are increasingly required to work together to develop regional service plans. However DHBs and the PHOs they fund often have separate planning and information systems, with poor linkage between the secondary and primary sectors. There is a population focus for funding and planning with DHBs having responsibility for a whole population within a region, but this does not always translate into the diverse responses needed for different communities. There is ad hoc sharing between medical disciplines but this is not systematic and relies on individual relationships. DHBs have recently been required to establish shared back office (such as finance and human relations) support services in order to reduce costs and increase capability in these areas. At the PHO level, the current phase of change is seeking amalgamations of PHOs and increased collaboration across PHOs.

At the practice level, the government is asking for increased collaboration to improve co-ordination of care for patients. This might include improved information sharing through to co-location of services through to the development of new businesses that integrate care at the primary care level.

In 2009 the government sent out a Request for Expression of Interest (EOIs) *“for the delivery of Better, Sooner, More Convenient Primary Health Care”*.³⁵ The aim was for large scale and transformational service improvement initiatives for a more personalized primary health care system providing services closer to home, making New Zealanders healthier and reducing pressure on hospitals. EOIs could be made by single organizations or consortia comprising PHOs, nursing providers, general practices, management services organizations, IPAs, Māori

and Pacific, allied health, mental health services, social services, community/residential care, pharmacy, laboratory and diagnostic services providers and lead maternity carers (midwives). Nine successful proposals have been accepted through to business case development which overall cover 60% of NZ's population. It is these EOs that are currently driving change through Alliance planning processes involving a wide range of health organizations (such as DHBs, PHOs, practices, pharmacists), the amalgamation of some PHOs, and the development of more integrated models of care.

Things we have that the US does not

- Single, universal system – single funder through which all funding is channeled with the entire population covered; this also results in very low administration costs
- PHC Strategy (although it is getting a bit old now)
- Key structures to support population health eg DHBs, meso-level primary care organizations to oversee primary care services
- Gatekeeper role, to reduce unnecessary use of expensive specialist services
- History of clinician-led reforms (US clinicians relatively powerless in relationship to powerbrokers of employers, farmers, insurance companies and politicians)
- Organized primary medical care, incorporating considerable preventive care, coordination of services for patients, especially those with multiple chronic conditions, and population health planning
- Lower overall costs
- Small scale which can make change easier to achieve.

References

1. OECD. OECD Health Data. Paris: OECD; 2009.
2. Starfield B, Shi L. The medical home, access to care, and insurance: a review of evidence. *Pediatrics*. 2004 May;113(5 Suppl):1493-8.
3. Ministry of Health. Health Expenditure Trends in New Zealand 1990-2006. Wellington: Ministry of Health; 2008.
4. King M. The Penguin History of New Zealand. Auckland: Penguin Books; 2003. 563 p.
5. Ashton T. Health care systems in transition: New Zealand Part I: An overview of New Zealand's health care system. *J Pub Health Med*. 1996;18(3):269-73.
6. The World Bank. Doing Business: measuring business regulations - Economy rankings <<http://www.doingbusiness.org/rankings>>. Accessed 2011 13 February, 2011.
7. Gauld R. Revolving Doors: New Zealand's Health Reforms - The Saga Continues. Wellington: Institute of Policy Studies and Health Services Research Centre, 2009.
8. Fraser J. Rural Health: A Literature Review for the National Health Committee. Wellington: Health Services Research Centre, School of Government, Victoria University of Wellington, 2006 December. 65 p.
9. Malcolm L, Mays N. New Zealand's independent practitioner associations: a working model of clinical governance in primary care? *Bmj*. 1999 Nov 20;319(7221):1340-2.
10. Barnett R. Coping with the costs of primary care? Household and locational variations in the survival strategies of the urban poor. *Health Place*. 2001 Jun;7(2):141-57.
11. Dovey SM, Tilyard MW. Fees charged to a consulting population in general practice. *New Zealand Medical Journal*. 1991 Jun 12;104(913):222-4.
12. Crampton P, Dowell A, Woodward A. Third sector primary care for vulnerable populations. *Social Science & Medicine*. 2001 Dec;53(11):1491-502.
13. Ashton T. The purchaser-provider split in New Zealand: the story so far. *Australian Health Review*. 1995;18(1):43-60.
14. Ashton T. The Health Reforms: To Market and Back? In: Boston J, Dalziel P, St John S (eds). *Redesigning the welfare state in New Zealand: Problems, Policies, Prospects*. Auckland: Oxford University Press, 1999:134-53.
15. Ashton T, Cumming J, McLean J. Contracting for Health Services in a Public Health System: The New Zealand Experience. *Health Policy*. 2004;69(1):21-31.
16. Ashton T, Cumming J, McLean J, McKinlay M, Fae E. Contracting for Health Services: Lessons from New Zealand. Regional Office for the Western Pacific: World Health Organization, 2004.
17. Cumming J, Salmond G. Reforming New Zealand health care. In: W R (ed). *Markets and health care: a comparative analysis*. New York: Addison Wesley Longman, 1998.
18. Barnett P. Into the unknown: the anticipation and experience of membership of independent practitioner associations. *New Zealand Medical Journal*. 2003 4;116(1171):U382.
19. Malcolm L, Wright L, Barnett P. The Development of Primary Care Organisations in New Zealand: A Review Undertaken for Treasury and the Ministry of Health. Wellington: Ministry of Health; 1999.

20. Malcolm L, Wright L, Barnett P. Emerging clinical governance: developments in independent practitioner associations in New Zealand. *New Zealand Medical Journal*. 2000 Feb 11;113(1103):33-6.
21. Gauld R, Mays N. Are New Zealand's new primary health organisations fit for purpose? *Bmj*. 2006 Dec 9;333(7580):1216-8.
22. Houston N, Coster G, Wolff L. Quality improvement within Independent Practitioner Associations: lessons from New Zealand. *New Zealand Medical Journal*. 2001 Jul 13;114(1135):304-6.
23. Gauld R, Mays N. Reforming Primary Care: Are New Zealand's New Primary Health Organisations Fit for Purpose? *British Medical Journal*. 2006;333:1216-8.
24. King A. The Primary Health Care Strategy. Wellington: Ministry of Health; 2001.
25. Ministry of Health. The Primary Health Care Strategy. Wellington, New Zealand, 2001. 40 p.
26. Ministry of Health. Implementing the New Zealand Health Strategy 2002: The Minister of Health's second report on progress on the New Zealand Health Strategy. Wellington, 2002 December. 121 p.
27. Smith J, Cumming J. Taking the temperature of primary health organisations. Wellington: Health Services Research Centre, 2009.
28. Ryall H. Better, Sooner, More Convenient: Health Discussion Paper. Wellington: National Party of New Zealand, 2007.
29. Conrad DA. Incentives for health-care performance improvement. In: Smith PC, Mossialos E, Papanicolas I, Leatherman S (eds). *Performance Measurement for Health System Improvement: Experiences, Challenges and Prospects*. Cambridge: Cambridge University Press, 2009:582-612.
30. Whanau Ora Taskforce. Whanau Ora: A whanau-centred approach to Maori wellbeing. A discussion paper by the Whanau Ora Taskforce. Wellington, 2009. 8 p.
31. Schoen C, Osborn R, Squires, Doty M, Pierson R, Applebaum S. How Health Insurance Design Affects Access to Care and Costs, by Income, in Eleven Countries. *Health Affairs*. 2010;29(12):2323-34.
32. Greene RA, Beckman HB, Mahoney T. Beyond the efficiency index: finding a better way to reduce overuse and increase efficiency in physician care. *Health Affairs*. 2008;27(4):w250-w9.
33. Royal New Zealand College of General Practitioners. Aiming for Excellence. Wellington: RNZCGP, 2000. 99 p.
34. Kirk R, Barnett P, Clayden C, et al. Evaluation of the Pegasus Health Global Budget Contract: New Zealand Health Technology Assessment (NZHTA), 2002. 359 p.
35. Ministry of Health. Request for Expression of Interest (EOI) for the delivery of Better, Sooner, More Convenient Primary Health Care. Wellington, 2009 September. 15 p.



Primary Care Models - NZ

Felicity Goodyear-Smith, Jacqueline Cumming,
Robin Gauld, Paul McCormack, Bev O'Keefe, Harry Pert

International Learning on Increasing the Value &
Effectiveness of Primary Care (I LIVE PC)
4-5 April 2011 Washington, DC (Rockville, MD)



Overall health system design

- Strong expectation of state funding (social democratic tradition)
- Public / private mix
- Public hospitals free, universal access
- Private insurance available - offers choice of specialist & hospital care eg elective surgery
- Primary care variably subsidized – GP services mixture of state & out of pocket
- Medicines & investigations heavily subsidized
- No fault liability - ACC



Prior to 1980: Independent general practitioner

- 1938 - Privately owned fee-for-service primary medical services, varying levels of subsidization, operating alongside fully subsidized government-owned public hospital service
- Introduction of PN subsidy important - foundation for subsequent team work
- Gradual erosion of real value of General Medical Subsidy

Positive aspects	Negative aspects, failures
<ul style="list-style-type: none">• Patient-focused & family-focused• Good access• Continuity of care - after-hours, antenatal, palliative• 1st contact including family planning, sexual health, A&M• Practice nurses	<ul style="list-style-type: none">• Isolated• No evaluation of performance• Affordability of services for patients deteriorated over time - govt subsidies failed to keep up with inflation



1981 to 1990: Diversification in primary care

- Free hospitals / subsidized GPs
- Increasing fragmentation - falling real value of state investment resulting in financial barriers to access

Thus

- Opportunity for entrepreneurial clinic services in fee-for-service environment
- Political drive to support independent midwifery
- Concern about financial barriers to access – Special Medical Areas, Union clinics

Positive aspects	Negative aspects, failures
<ul style="list-style-type: none">• More patient choice• Increasing employment of receptionists & practice managers• Early adoption of IT	<ul style="list-style-type: none">• Lack of information-sharing & service coordination• Little ongoing education• No systematic QI• Increasing patient co-payments - further access issues for vulnerable patients• Midwives replace GPs• Entrepreneurial A&M clinics - no continuity of care or sharing records



1990 to 1999: Independent Practitioner Associations (IPAs)

- Clinical governance (doctor-led) networks
- Grass roots innovation
- Clinical guideline use, public health programs, budget-holding for prescribing & laboratory testing, comparative-effectiveness research & dissemination
- Electronic subsidy payment – invest in IT
- Peer-led CME, using data for personalized feedback on clinical performance, quality improvement initiatives

Positive aspects	Negative aspects, failures
<ul style="list-style-type: none">• Networking• Innovation• Reduction in variation in practice• Shift from autonomy of practice to incorporation of peer review• Budget-holding - tools applied to other quality initiatives• Driving own education agenda• Increase in team work• Enhanced GP voice in system• Professional satisfaction	<ul style="list-style-type: none">• Little community involvement• Variable delivery• GP model (not inclusive)• Failure to report & evaluate results & roll out good programs nationally• Competition between networks• Failure to share innovations• Profit management issues not addressed• Market model with funder/provider split - competitiveness & fragmentation of care



2000-2009: Primary Health Organisations (PHOs)

- Policy framework without grass root engagement
- Personal vs public health approach
- Pursuit of universality with insufficient money to pay for it
- Unintended consequence: better funding to well off, relatively less to disadvantaged

Positive aspects	Negative aspects, failures
<ul style="list-style-type: none">• Increase of funding into PHC• Recognition of PHC being heart of health system• Strategy based on Alma Ata• Capitation & better blend of payments• Community involvement• Met need where weak or absent IPAs• Enrolled populations	<ul style="list-style-type: none">• Poor implementation, ideologically driven• Denigration of clinical leadership• Disengaged clinicians• Muddled thinking about population vs individual health (instead of both)• Did not engage population• Did not achieve true PC integration• Reduction in IPA knowledge about budget-holding



2010 to the future: Integrated family health care

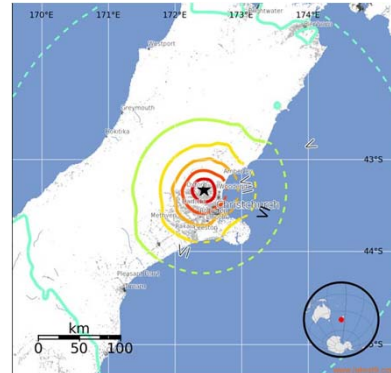
- Little analysis of ideal size & culture for effective network
- No agreed / validated measures of success
- Response to rising problem of chronic disease - falling affordability of current model (primary & secondary) means need to reengineer workflow

Positive aspects	Negative aspects, failures
<ul style="list-style-type: none">• Government permissive about integrated care• Existing infrastructure can act as building blocks• 24/7 coverage• Multi-disciplinary team focus• More clinical governance involvement at all levels• Better primary secondary communication• Rationalisation of structures with focus on regional planning & services	<ul style="list-style-type: none">• Sector change-weary• Early adopters burnt out• Practical infrastructures not available (bricks & mortar)• Contracts lead to disincentivization• Fear loss of autonomy• Held back by fees policy• No nurturing of leadership



Sometimes it takes a disaster to drive innovation

Canterbury may be opportunity to rebuild disrupted services with more integrated models of care



The Evolution of Team-Based Primary Healthcare in Canada

Brian Hutchison
McMaster University

I LIVE PC, Washington, DC, April 4, 2011



Where and What

- Most fully developed in three provinces: Ontario, Quebec and Alberta
- Inter-professional teams invariably include family physicians and registered nurses and/or nurse practitioners
- Teams vary in size and staff mix within and across provinces
- Other model characteristics also vary

Alberta

- Primary Care Networks (introduced 2005)
- 39 networks of 3-273 physicians, single or multi-site
- 75% of the province's family physicians participate
- other healthcare professionals may include nurses, dietitians, social workers, mental health workers and pharmacists

Quebec

- Family Medicine Groups (introduced 2002)
- 317 groups of 6-10 family physicians working with nurses and sometimes other health professionals
- 37% of the province's family physicians
- Earlier and continuing model, Centres locaux de services communautaires (CLSCs) (introduced 1972)

Ontario

- Community Health Centre (introduced 1979) and Family Health Teams (introduced 2005)
- 73 CHCs and 162 FHTs
- Together they include 21% of Ontario's family physicians
- FHTs typically include nurses, nurse practitioners, dietitians, mental health workers, social workers and pharmacists
- CHCs employ an even broader range of clinical, health promotion and community development professionals
- Nurse Practitioner-led Clinics introduced 2007

Supports for Team-Based Care

- Patient enrolment (Quebec and Ontario)
- Funding for premises, equipment and information technology
- Funding for non-physician providers and administrative staff
- Quality improvement training and support (Alberta and Ontario)



“Here is Edward Bear coming downstairs now, bump, bump, bump, on the back of his head, behind Christopher Robin. It is, as far as he knows, the only way of coming downstairs, but sometimes he feels that there really is another way, if only he could stop bumping for a moment and think of it”

A.A. Milne 1926

Illustration E.H.Shepard 1926/14



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The Discipline of
General Practice


Innovative Primary Care Models for Disadvantaged Communities in Oz

Prof John Marley

Prof Claire Jackson

www.uq.edu.au/health

"Sustainable Development in Primary Care"



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The Discipline of
General Practice

Cessnock 2004...

- Lowest socio-economic scores in the Hunter Region
- High rates **Of** diabetes, stroke, heart disease
- High rates of smoking and alcohol abuse
- Very low Pap smear rate
- Higher than average rates of death and hospitalisations
- High rates of teenage pregnancy and maternal smoking
- GP to patient ratio of 1:2825 people, and worsening
- Shortage of other health services - especially mental health, drug and alcohol, diabetes care

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"Sustainable Development in Primary Care"

Cessnock model of care



- Multi-disciplinary patient care
- GPs as team leaders
- Nurses and Allied Health Professionals provide targeted health services
- Fully computerised – all work from same clinical record
- Universal free access for a poor population
- No special operating subsidies

www.uq.edu.au/health

"Sustainable Development in Primary Care"

At the three year point....



- Over 10,000 registered patients
- Provided 132,000 health care services
- Commenced comprehensive care for 630+ patients with chronic disease
- Identified and managed 140+ patients with asthma
- Provided 180+ Dietician managed care plans
- Completed over 2,300 cervical smears
- Completed over 300 mental health plans

.....in a building three times its original size

www.uq.edu.au/health

"Sustainable Development in Primary Care"

GP Super Clinics will.... (2008)

- Bring together general practice, nursing, medical specialist, allied health and other health care provider teams into one place to deliver better primary health care tailored to community needs and priorities
- Move towards integrated multi-disciplinary clinical governance, shared care protocols, efficient use of technology, and a strong focus on patient self management
- Provide a greater focus on chronic disease prevention and management, as well as economies of scale in delivering high quality health care

www.uq.edu.au/health


"Sustainable Development in Primary Care"

AAAGP approach: UQ's Primary Care Amplification Model (PCAM)

- Creates a 'beacon' practice in an area which acts to support and extend the capacity of primary care in the area, and better integrate service delivery locally between general practice, specialist services and other state-funded care.
- Accomplished via the establishment of a general practice 'mustering point' for an expanded scope of practice for local primary care providers in areas of population need, service innovation, teaching, (u/g and p/g) and relevant local clinical research


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"Sustainable Development in Primary Care"



The Discipline of
General Practice

The Primary Care Amplification Model (PCAM)




➤ Central to PCAM is the provision of the core elements of general practice and primary care – first contact, continuous, comprehensive and coordinated care provided to populations undifferentiated by gender, disease, or organ system. The Amplification Model features four additional key characteristics:

- an ethos of supporting local primary care both within and external to the practice
- an expanded clinical model of care into complex 'specialist' care management;
- a governance approach that meets the specific needs of the community it serves;
- and a technical and physical infrastructure to deliver the expanded scope of practice.

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The Discipline of
General Practice

GP Superclinic Observations

- Contributing evidence to linkages between integrated team based care and better outcomes in chronic and complex conditions emphasising prevention and self management
- Increasing practitioner's understanding of integrated team-based multi-professional care
- Driving change in models of care
- Challenges: integration and clinical governance across different funding sectors and public/private financing of care
- SCs one of several investments in team based care

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"Sustainable Development in Primary Care"

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Medical Home UK

- So what of England? Where is our 'Medical Home'? And our 'Accountable Care Organisation'?
- Even if not universally acclaimed as such, it already exists - it is list based general practice where primary care workers combine one to one personal care with the potential of population care. And the list or as my father's generation knew it-the panel- dates its origins to at least 1911, the time of the epoch breaking Lloyd George National Insurance Act. The even more epoch breaking NHS Act of 1946 reinforced the panel/list of general medical practice.

It is the unique attributes of the GP system that has lent itself well to being the central plank of post 1990 English NHS reform.

- GP Fundholding where budgets could be allocated to a GP practice population and not tied to a specific disease or care group. This allowed an opportunity for a more imaginative use of the monies to provide better care for their patients. (Julian Le Grand, Nicholas Mays, and Jo Mulligan (1998) (eds) *Learning from the Internal Market: a Review of the Evidence*. London, Kings Fund).
- The Quality and Outcomes)) which is the largest pay for performance system for clinicians world-wide and can only be successfully delivered to a defined population.
- And in 2013 the General Practice Commissioning Consortia (GPCC) that will replace the current Primary Care Trust managerially led commissioners. The consortia will receive their monies based on aggregated practice list based allocations.

Key elements of 'Liberating the NHS'

- Create a patient-centred NHS
- Focus on improving their experience and their health outcomes
- Empower professionals – end top-down control
- Or put another way;-

- **No decisions about me without me** - an information revolution arming patients and clinicians with more transparent data, helping patients to make more informed choices and hold the NHS to account.
- **Outcomes that are amongst the best in the world** – a shift to a future focussed on better outcomes and away from structures and process.
- Empowering clinicians to deliver results – setting them free to make decisions for their patients, for example **GPs commissioning services for their local communities.**

GP consortia

- every GP practice will have to be a member of a consortium However, our proposed model will mean that not all GPs have to be actively involved in every aspect of commissioning.
- GP consortia will receive a maximum management allowance
- All GP Consortia will need to include an Accountable Officer.
- sufficient geographic focus
- managing the combined commissioning budgets of their member GP practices, and using these resources to improve healthcare and health outcomes
- a duty to promote equalities
- a duty of public and patient involvement,
- envisage that other primary care contractors will be involved in commissioning services to which they refer patients

The Primary Care 'Home'?

- Population based primary care is where the needs of the individual and of the community can be met
- Home for all PC providers (Pharmacists, Dentists, Optometrists), CHS and Social Care
- And potentially many currently working in hospitals
- To deliver;-
-

- Improved service quality and responsiveness to patients' individual requirements
- Long Term Conditions (CDM)
- Care closer to the patient's home
- The 'home' for extended skills and services
- Service redesign which promotes clinical innovation and excellence
- A reduction in unnecessary or inappropriate care leading to better value for money as clinicians prioritise to keep overall health expenditure within budget
- Where bio-clinical focus and addressing the social determinants of health can be the responsibility of one provider organisation
- Importance of relationship with local government and third sector

GP facts

- England numbers (headcount) Sept 09
- All Practitioners GP Providers Other GPs
- GP Registrars GP Retainers
- England 40,269 28,607 7,310
- 3,881 471
- England full time equivalent
- All Practitioners GP Providers Other GPs
- GP Registrars GP Retainers
- England 36,085 26,245 5,866
- 3,659 315
- England numbers (headcount) by age band
- All Practitioners
- (excluding
- Retainers and
- Registrars) Under 30 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70 +
- England 35,917 478 4,061 5,304 5,633 6,715 5,892 4,272 2,296 929 337
- All General Medical Practitioners (excluding GP Retainers and GP Registrars), by Country of Primary Medical Qualification group
- England numbers (headcount)
- All Practitioners
- (excluding Retainers
- and Registrars) UK Rest of EEA Other Unknown
- England 35,917 27,817 1,723 6,263 114

Other GP facts Sept 09

- Practice Staff by type: headcount and full time equivalent
- England numbers (headcount) and full time equivalent
- Practice Staff FTE 72,153
- Practice Nurse FTE 13,582
- Direct Patient Care FTE 5,151
- Admin and Clerical FTE 51,233
- Other FTE 2,187
- Practice Staff HC 114,268
- Practice Nurse HC 21,935
- Registered GP Patients by ageband
- England numbers (headcount)
- All Patients 0-4 5-14 15-44 45-64 65-74
- 75-84 85 and over
- 54,609,309 3,179,281 6,158,848 22,989,387 13,739,552 4,482,101 2,914,601 1,145,539
- All General Medical Practitioners (excluding Retainers and Registrars): Practices by size
- England numbers (headcount)
- All Practices Single Handed 2 3 4 5 6 7 8 9 10 11 12 13+
- England 8,228 1,266 1,452 1,130 1,057 909 813 530 423 257 167 80 56 88

General Practice

- In 1995, the average sized practice in England provided around 21,000 consultations annually to its patients but by 2008 it was providing over 34,000.¹ Around 21% of GPs are now employed by practices rather than being practice owners.²
- Around 68% of employed GPs and 44% of all GPs³ are women.
- The majority of GP trainees are also now women so the proportion of working GPs that are women is likely to keep rising.
- The work of a GP is not just about seeing patients during appointments, at least a third of their time involves reviewing results, making referrals, visiting patients at home, signing repeat prescriptions, doing other administrative work and managing patient care. (GPC estimate)
- Around 30 per cent of GPs still choose to provide out-of-hours services to their patients either directly or by working for an out-of-hours organisation. (GPC estimate)
- 1 Research and The Health and Social Care Information Centre (2009) *Trends in Consultation Rates in General Practice 1995 to 2008: Analysis of the QResearch database.*
- 2 The Information Centre for Health and Social Care (2010) *General and Personal Medical Services England 1999-2009*
- 3 The Information Centre for Health and Social Care (2010) *General and Personal Medical Services England 1999-2009*

UK general practice

- For the majority of patients in the UK general practice is the primary access point to health care and the GP acts the gatekeeper to elective specialist and secondary care.
- In 2008 there were 300m General Practice Consultations, of which 62% were undertaken by GPs (Hippisley-Cox & Vinogradova, 2009).
- The proportion of activity undertaken by nurses in general practice has grown markedly in the last 13 years, rising from 21% in 1995 to 34% in 2008, yet the consultation rate with GPs has stayed nearly constant rising from 3.0 to 3.4 consultations per patient-year in the same period (Hippisley-Cox & Vinogradova, 2009).
- In 2008 GPs made 9.3m referrals to secondary care (HES 2008), suggesting around one in twenty GP consultations result in a referral to secondary care. HES data shows that the number of GP referrals have increased by 14% in the last three years (2005-2008).
- The GP's role with respect to emergency care is less clear, especially as they are no longer required to provide care out of hours. However, GPs are still involved in referring 950,000 patients each year as emergency admissions to hospital, 21% of total emergency admissions.

Registering with a GP practice: how does it currently work?

- downward trend in numbers of home visits in recent years (from around 14 million in 1995 to 6 million in 2010)

GP Finances

- GP practices deliver over 300 million consultations per year at a cost of £7 billion or around £22 per consultation
- referral decisions currently costing c.£9 billion annually
- prescribing decisions c.£9 billion
- About 57% of GP contract funding goes on weighted capitation,
- 16% on QOF
- 12% on enhanced services:
- this funding follows the patient if they switch practice.
- The remaining funding streams –
- reimbursement of premises/IT costs (9%),
- Minimum Practice Income Guarantee (MPIG) (2%) and
- other fees/allowances including seniority pay (3%)

GP workload

- About 10% of a typical GP's workload will involve patients complaining of GI symptoms, e.g. dyspepsia, gastro-oesophageal reflux disease (GORD) and irritable bowel syndrome (IBS).
- 40 per cent of older people attending GP surgeries, have mental health needs
- It has been estimated that 20% of people consulting their GPs, and about 40% of those attending UK walk-in centres do so because of a musculoskeletal complaint.
- 'Around 40% of GP consultations are for minor ailments
- In a typical year pre-school children will see their GP about six times, school aged children will see their GP two or three times. These will normally be for minor illnesses
- . Between 15% and 20% of GP consultations have a dermatological component.

General Practice

- In the 2009 GP Patient Survey^[1] 91% of patients said they are satisfied or very satisfied with the care they receive at their GP practice. Over the last ten years, we have seen major improvements both in access to primary care and in quality of care.
- According to a recent survey of primary care doctors in developed countries conducted by the Commonwealth Fund^[2], the UK was identified on a number of measures as having the best primary care services
^[1] GP Patient Survey 2009, Ipsos-MORI June 2009
www.gp-patient.co.uk.
- ^[2] 2009, Commonwealth Fund International Health Policy Survey

Registering with a GP practice: how does it currently work?

- The system of patient registration with a GP practice is one of the cornerstones of the NHS.
- Anyone living in the UK is free to approach a GP practice and apply to join its list of NHS patients. At present, the practice can use its discretion in deciding whether or not to accept someone onto its list. But if they refuse an application, they must have reasonable grounds for doing so that do not relate to race, gender, social class, age, religion, sexual orientation, appearance, disability or medical condition.
- It is possible to register as a temporary resident where someone is in the area for more than 24 hours but less than three months.
- A practice can refuse an application where the PCT has agreed that they should close their patient list, typically because they have reached full capacity.
- The most common reason for refusing an application, however, is that the patient does not live within the practice's boundary area.
- Practice boundaries have been enshrined in legislation since the start of the NHS. They define the area – sometimes called the catchment area – in which a GP practice operates. Ordinarily patients can register with a practice only if they live within this area, *though the GP contract does not in itself prevent a practice from registering a patient from outside its boundary*. Boundary areas will have been agreed with the local Primary Care Trust (PCT) or a predecessor organisation when the practice was established and they can only be changed by mutual agreement between the PCT and practice.
- The traditional purpose of these boundaries has been to help practices control their workload, particularly in relation to home visits – both during normal surgery hours and during the out-of-hours period (for which all GP practices were previously responsible) – and to help practices keep below the former cap on the number of patients they could register.

Registering with a GP practice: how does it currently work?

- When the new GP contract was introduced in 2004, GPs were given new abilities to control their workload, in particular by opting out of responsibility for out-of-hours care, by being able to close their lists, and by being able to withdraw from providing certain additional services like contraceptive or maternity services.
- Since 2004, the most significant remaining feature of practice boundaries is that they enable practices to limit the area in which they have to visit patients at home (during the normal surgery hours of 8am to 6.30pm, Monday to Friday), if there is a clinical need to do so. *Home visits make up an estimated 4 per cent of overall GP consultations^[1]* but (because of the travel time involved) account for a greater proportion of GPs' time. They can be an essential part of the family doctor service for some patients, particularly those who are housebound, those living in nursing or residential care homes, and young children. In other cases, patients can go for years without needing home visits, whilst at the same time being tied to a local practice that they also find it inconvenient to use for routine care.
- ^[1] Annual GP Workload Survey, NHS Information Centre, 2006

OOH

- At the beginning of 2004, fewer than 5% of GPs provided out-of-hours services themselves, about 70 per cent of GPs had delegated the responsibility to a GP co-operative, and around 25 per cent to a commercial provider.
- Under the general medical services (GMS) contract introduced in April 2004, GPs were able to opt out of direct responsibility for provision of out-of-hours care and transfer this responsibility to their local Primary Care Trust (PCT). This led to 90% of practices opting-out and transferring responsibility to PCTs.
- By April 2005, 75% of service provision for out-of-hours was PCT-organised or contracted through co-operatives of various types, with the remaining 25% provided through commercial providers, ambulance trusts and other providers.
- Since 2004 when PCTs first took responsibility for commissioning out-of-hours care, the market has changed. Initially based largely on NHS provision and co-operatives with a minority of independent sector companies, it has moved towards the commercial for profit sector which has grown from 20% to 30% over this period. In the same period NHS core provision has shrunk from 35% to 30% and the not-for-profit sector from 45% to 40%. The overall size of this market is estimated to be around £480M.

OOHs-The Colin-Thomé/Field report

- The Government recognises that more needs to be done to tackle the variation in the commissioning and delivery of out of hours services across the country. That is why the Government is taking additional steps to strengthen out of hours services:
 - reviewing the existing National Quality Requirements in order to develop a stronger set of national, minimum standards which all out-of-hours must meet;
 - introducing a new model contract for out-of-hours provision, based on the new national minimum standards, to reflect the characteristics of existing high quality provision;
 - through stronger performance management by SHAs, tightening existing controls to ensure PCTs are meeting their legal obligations through commissioning and contracting arrangements and that providers are employing competent clinicians to practice as GPs in primary care out-of-hours. It is also intended that PCTs will be directed to review their current procedures and to ensure that they have a clear policy in place for assessing the language knowledge of persons applying for inclusion on the local Performers List.
 - requiring PCTs to increase their engagement and involvement of GPs in ensuring high quality provision of out-of-hours services through, for example, Local Medical Committees, RCGP groups, Faculties, clinical executive groups, local and with practice-based commissioning consortia.

Registering with a GP practice: how does it currently work?

- The NHS in England spends around £7 billion providing GP services for patients, but not all of this money follows the patient if they switch practice. In particular, some £300m was (until 2008/09) spent on a Minimum Practice Income Guarantee introduced as part of the new GP contract in 2004 to preserve previous levels of basic income, regardless of changes in the numbers of patients on the practice list.
- In 2008, DH agreed with the BMA to start phasing out reliance on these income protection payments, with around £130m in 2009/10 moved into capitation payments that move with the patient.
- Ten years ago, there was very limited information available about local health services. The public now has access to a range of sources – local PCT guides, NHS Choices, GP practice websites – that provide comparative information about GP practices.
- The NHS Choices website, for example, lets the public compare GP opening hours and compare what patients think about different practices (as measured through the GP Patient Survey), and lets them leave comments on the site for others to see. This facility is already proving popular as patients log on to see what other services might be available. Over 6000 people have left comments so far and the site has seen an increase of over 60,000 people visiting the GP directory pages every month.

The Performers List Regulations

- Since 1999 GPs and general dental practitioners who wish to provide services to NHS patients have been required to apply to be included in a Performers List maintained by the PCT. The Performers List system enables the PCT to seek additional assurances that each individual healthcare professional providing services through its contracts, including sessional doctors, those providing out of hours services and locum practitioners, is fit to provide the primary care services and to take action if it perceives a threat to patient safety. These arrangements were extended to General Optical Services in 2008.
- The Performers List system provides a broadly comparable disciplinary process to that for employed staff for practitioners that are not directly employed. It also supports PCTs in discharging their statutory responsibility for ensuring the quality of the primary care services they commission and enables the NHS, at a local level, to act quickly and effectively to protect patients. The grounds on which a Primary Care Trust must refuse to include a GP on its performers list include (at regulation 6(2)(b) of the Performers List Regulations) where it is not satisfied that he has the necessary knowledge of English to perform primary medical services in the PCT's area.
- A review of the Performers List system reported in March 2009. It concluded that responsibility for admissions to the Performers List, and for disciplinary options such as suspension, conditions and removals, should remain with PCTs. However, the review did make a strong argument for information on PCT decisions to be made more widely accessible (e.g. to other PCTs where a practitioner might seek to work). The review made 73 recommendations for improving the system including:
 - simplifying the application process to avoid duplication with the GMC;
 - clarifying issues around suspension, imposing warnings and conditions on a practitioner and removal;
 - improving arrangements for hearings;
 - making other detailed practical changes including those to regulations; and
 - strengthening guidance to PCTs to improve consistency.

GP registration

- The GP Register is a register of doctors who are eligible to work in general practice in the health service in the UK. From 1 April 2006, all doctors working in general practice in the health service in the UK, other than doctors in training such as GP Registrars, are required to be on the GP Register. This requirement extends to locums.
- The GP Register was introduced alongside the changes to the system for postgraduate medical education and training under The General and Specialist Medical Practice (Education, Training and Qualifications) Order 2003.
- Being included on the GP Register is one requirement for entry to a medical performers list for GPs, although this does not apply to doctors in training, such as GP Registrars. When a doctor applies to join a performers list, the PCT should contact the GMC to check whether that doctor is on the GP Register, and make other checks.
 - *Doctors applying for inclusion on the register of medical practitioners from the EEA must hold a recognised qualification, listed in the Directive and issued by an EEA competent authority [1].*
 - *Identity checks are undertaken and character references are sought from the host competent authority, but there is no requirement on EEA nationals to undergo a PLAB test, or to satisfy the GMC about their level of knowledge of English.*
 - *EEA doctors restored to the Register after prolonged absence from UK practice are advised by the GMC to work initially in an approved practice setting.*
- Under the Directive, doctors not entitled to automatic recognition by virtue of holding a listed qualification may nonetheless be registered by virtue of rights acquired in an EEA state.

Directed Enhanced Services-England

- The Primary Medical Services (Directed Enhanced Services) (England) Directions 2010 provides details of the DESs that apply for the new financial year. The following time-limited DESs are extended into the new year:
 - extended hours access
 - alcohol related risk reduction
 - ethnicity and first language recording
 - learning disabilities health check
 - osteoporosis diagnosis and prevention.

General Practice

- The most doctored PCT has more than twice as many GPs per 100,000 people than the least doctored PCT (41 to 83 (average 58) per 100,000 weighted population). 20 out of the 30 least well-doctored PCTs are in spearhead areas

Patient Mobility or not!

- around 10% of the population move practice every year
- approximately 10% of practices do not accept new patients. These practices are often bunched in a small area, eliminating choice for many patients

'Fairness in Primary Care'

- procurement was established to :
- address long-standing inequities in the level of service offered to people in our poorest communities;
- provide patients with opportunities for choice and fairer access to GP services; and
- improve service quality and responsiveness through introducing new capacity and contestability and reduce pressure on existing practices.

Equitable Access - Core Criteria

GP practices

- ✓ Core GP services
- ✓ List size of at least 6,000 patients
- ✓ Extended opening hours (minimum of 5 hours per week)
- ✓ Plan to be a accredited training practice
- ✓ Engaged in practice based commissioning
- ✓ With extended (and overlapping) practice boundaries

Health Centres

- ✓ Core GP services
- ✓ Easily accessible locations (e.g. reflect commuter needs)
- ✓ Open 8am-8pm, 7 days a week
- ✓ Bookable GP appointments and walk in services
- ✓ Registered and non-registered patients
- ✓ GP-led

Diagnostic services
Community pathology
Radiology
Audiology

Specialist services
Minor surgery
Dermatology
Chronic pain
GU medicine

Rehabilitation
COPD
Chronic pain
Orthopaedic
Stroke care

Social care

Urgent out-of-hours care
Dental services

Palliative care/
end of life care

Pharmacy services

Local flexibilities will enable PCTs to maximise innovation by integrating and co-locating health centres with other services

GP-led health centres

- In the last two years, over 130 GP-led health centres have opened to the public, providing open access to GP services from 8am-8pm, 7 days a week – at an annual cost of around £1.35m per centre.
- they have been far more popular with walk-in users and have not resulted in large numbers of people switching registration from their existing practice
- A further 20 or so are due to open over the next year.
- There are 174 conurbations with populations of at least 50k, of which 80 already have a GP-led health centre

Dispensing GPs

- Under the 1992 Regulations, some doctors, practising in rural areas, are permitted to dispense as well as to prescribe drugs, even in circumstances where there is no emergency. 'May be of some importance to a rural practice with a small patient list.'
- The 1992 Regulations provide that a PCT may authorise a GP to provide pharmaceutical services under the NHS to patients living in a 'controlled locality' who would have serious difficulty in reaching a pharmacy. A controlled locality is a rural area. In a dispensing practice, the dispensing of medicines will take place on the practice premises under the authority of the GP. However, the GP usually delegates the work of dispensing to a pharmacist or dispenser (who may or may not be qualified) employed by the GP or the practice. In England, there are about 4800 dispensing GPs, about 15% of all practising GPs.

Dispensing GPs

- Dispensing practices have 8 million patients on their lists.
- They dispense to 3 million patients.
- Hence 5 million patients see their GP/Nurse prescriber are issued with a prescription and take it to a pharmacy, whilst 3 million patients walk out of the surgery with the medication in their hands.
- If a patient who is on the list of a dispensing practice lives within 1.6km of a pharmacy they are one of the 5 million patients that are obliged to take their prescription to the pharmacy.
- If a patient lives in excess of 1.6km, they are then one of the 3 million patients for whom there is **additional** choice. They may elect to get their prescription from the practice dispensary **or** they may elect to take a prescription to a pharmacy.

Prescribing

- The NHS in England spent £8.0 billion on prescription drugs in primary care in the year ending November 2006—almost £22 million every day, and around a quarter of the total expenditure on primary care. Ninety-eight per cent of these drugs are prescribed by GPs
- In 2005:
- 720 million prescriptions items were dispensed in primary care. Seventy-four per cent of these were for six therapeutic areas: the cardiovascular system, the central nervous system, the endocrine system, the respiratory system, the gastro-intestinal system, and infections.
- £1.9 billion (a quarter of the total bill) was spent on cardiovascular prescriptions.
- Ninety-eight per cent of prescriptions dispensed in the community were written by GPs, the remainder by nurses, pharmacists and dentists.
- There were on average 14 prescription items dispensed per head of population. Patients under the age of 16 received 4 items per head on average, whereas those over 60 received 38 per head.
- The average cost to the NHS of a prescription item was £11.

Drugs Bill

- The NHS spends over £10 billion a year on medicines – about 75% of this in primary care, through GPs and (increasingly) non-medical prescribers, and 25% in hospitals. This is the biggest component of NHS revenue spend after staffing, and in recent years it has grown consistently at an underlying rate of about 8 or 9%.
- Drugs spend is driven in roughly equal proportion by innovation (new medicines become available so there are more treatments to offer) and volume growth (as NHS activity increases we are treating more people, so prescribing more drugs). Thanks to the efforts of the NHS over the past 20 years, primary care prescribing practice in England is some of the most efficient in the Western world.

GMS

- GMS contractual arrangements provide two main contractual levers to tackle inadequate or poor performance by GP practices. (There are separate arrangements, both through the GMC and through the performers list arrangements, for addressing concerns around the competence of individual GPs.) The levers are:
 - **remedial notices (or notices to improve):** these give formal notice to a contract holder and specify actions that the contractor is required to undertake in order to comply with the terms of their contract and the time period for remedying the issues of concern. A failure by the contractor to action a remedial notice can lead to the PCT terminating a contract.
 - **notices of breach of contract:** multiple breach notices (or a multiple of remedial and breach notices) may also lead to the PCT withdrawing a contract from the provider, or it may result in lesser penalties such as financial penalties.
- A contractor can formally appeal against the notifications issued by the PCT under the established contract dispute resolution procedure.

General Practice

- In the 2009 GP Patient Survey^[1] 91% of patients said they are satisfied or very satisfied with the care they receive at their GP practice. Over the last ten years, we have seen major improvements both in access to primary care and in quality of care.
- According to a recent survey of primary care doctors in developed countries conducted by the Commonwealth Fund^[2], the UK was identified on a number of measures as having the best primary care services
^[1] GP Patient Survey 2009, Ipsos-MORI June 2009
www.gp-patient.co.uk.
- ^[2] 2009, Commonwealth Fund International Health Policy Survey

QOF and Health Inequalities

- Although there are limitations to the data, QOF scores for practices serving the most disadvantaged populations are catching up with those of practices serving the least disadvantaged populations. Between 2004/5 and 2005/6, the average QOF score for 20% of practices with the highest Standardised Mortality Rates for the under 65s grew 8%. This compares to 3% for the 20% of practices with the lowest Standardised Morality Rates for the under 65s. In 2005/6, the average QOF score for the most disadvantaged group was 96% of that for the least disadvantaged group. This compares to 92% in 2004/5.

PC contacts

- GPs and nurses in general practice, see over 800,000 people a day – that is around 300 million contacts every year,
- dentists see around 250,000 people a day, and
- an estimated 1.6 million people visit a pharmacy each day, of which 1.2 million are for health-related reasons.



The Australian General Practice Network

*The Network & Australian PHC:
Past, present future*

July 2010

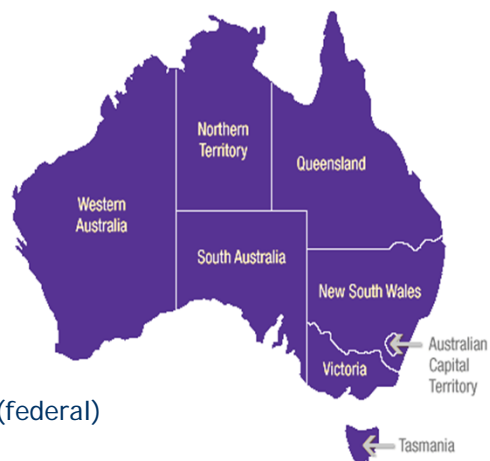
Australia's health system is complex

Divided responsibility for health (governments)

- Federated Structure:
 - 6 States
 - 2 Territories
- Public-private systems
- Multiple funders
- Multiple sectors

General Practice:

- FFS private practice
- MBS & PBS patient subsidies (federal)



Historical snapshot: general practice

Past	Present	Future??
Solo 'family doctor'	Larger practices/corporates	Superclinics & comprehensive PHC centres
Isolated cottage industry - little peer support	More nurses in general practice, some allied health	Multidisciplinary primary care teams
Episodic, reactive care	Some structured CDM & prevention programs	Organised PHC
One-way referral processes	More integration/shared care	Full integration (eHealth)
Fee for service	Blended payments	+ P4P & capitation
No patient enrolment	Voluntary enrolment proposed for subgroups	Widespread voluntary enrolment
No accreditation/VR	Accreditation/VR CPD	CQI + GP/PN career pathways/teaching
No Divisions	Divisions	PHCOs ("Medicare Locals")

Historical snapshot: Divisions

Past	Present	Future??
10 Demonstration Divisions 1992	111 Divisions, 8 SBOs, 1 national peak body (AGPN)	1 National org + 50 to 60 regional PHCOs
Member focus: GPs	Member focus: General practice & some broader PHC	PHC providers + broader (non-clinical) stakeholders
"Let a 1000 flowers bloom" (Project focus)	Major nationally coordinated programs/local adaptation	Population health outcomes Identifying regional needs. Target: to fill service gaps
Governance: GPs	Governance: Mostly GPs but more allied health/consumers	Skills based boards
Functional focus: GP support (workforce, CPD, business support)	General practice support plus community health promotion and CDM	Population health outcomes, service planning, prevention
Little program evaluation and data collection	Growing awareness of data collection and evaluation	Data collection and analysis key to functions
No accreditation	Accreditation	CQI, performance monitoring

Network - achievements

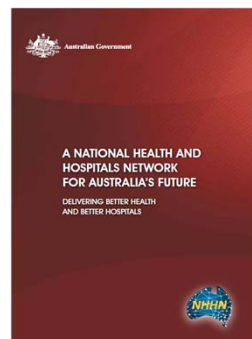
- A major change agent in general practice to provide more systematised, multidisciplinary care
- Other major achievements include:
 - Immunisation rates (now about 90% - were 77%)
 - PN program (now 9000 PNs from about 4000 in 2003)
 - EHealth (Practice computerisation, data governance)
 - Mental health (ATAPS, BOiMH)
- BUT this is not enough to overcome the new and continuing issues in health...

Problem: Why we need reform

- Health spend per person has increased 45% over the last decade
(Overall Australian health spend: 9% approx GDP or \$86.9 billion)
- Only 2% of health spend on prevention/health promotion
- Still too acute care focused: 9% hospital admissions considered potentially preventable
- Indigenous peoples + those living in rural/remote areas (still) have higher rates of illness and live shorter lives
- Ageing workforce: 16% health workforce is over 55yrs compared to 12% about 5 years ago
- Remote areas have half the supply of medical practitioners & dentists than major cities (FTE per 100,000 pop)
- Primary care doctor supply is 9% lower than 8 years ago
- 7.4 million Australian adults are overweight
- Federal/state divide: blame game & cost shifting continues

Major reforms proposed (1)

- One national health system:
 - National-regional approach
 - National leadership, local delivery
- Commonwealth:
 - Funding and policy responsibility for all PHC
 - New National Health and Hospitals Network (NHHN) - LHNs & PHCOs (“Medicare Locals”)



Significant emphasis on PHC

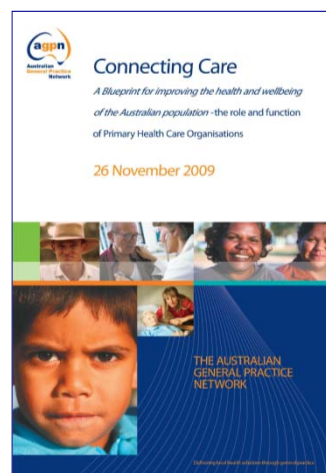
- Focus on population/consumers/patients and on outcomes
- Improve access and reduce inequalities
- Better manage chronic conditions
- Increase focus on prevention
- Improve quality, safety, performance and accountability
- Better information and population planning
- Focus for PHCOs: service gaps/areas of market failure

Major PHC changes proposed (2)

- Recognition of central role of general practice
- Emphasis on multidisciplinary, integrated team based approach
- Development of comprehensive PHC centres and services
- Organised, coordinated, integrated PHC rolled out through regional PHC organisations (PHCOs)

Key announcement for Network:

- That PHCOs evolve from (or replace) existing Divisions (NHHRC 2009)
- PHCO scope: *Facilitate improvements in the health and wellbeing of local populations through planning, coordinating, funding, developing and potentially delivering comprehensive primary health care services integrated with general practice.*



Opportunities & challenges



- Real and required emphasis on PHC
- Efficiency and a better patient experience - a less tangled maze
- Focus on general practice as hub of PHC

Opportunities & challenges

- Recent COAG agreement:
 - State/federal PHC role not clear cut
- Federal election
- Network change management:
 - PHCO boundaries + interface with LHNs
 - Governance changes while still engaging GPs
 - Relative evidence vacuum
- International activities and change in health reform (eg UK)



Australia's differences

- Private-public divide less clear in Australia
- State-Federal divide (which continues)
- Geographic distances (large geographic spread but reduced population - particular issues for workforce and coverage)
- GP funding & payment systems: FFS ingrained, enrolment/capitation presents challenges
- Divisions origins - instigated by the profession with government funding (unlike IPAs or PCTs)


UNIVERSITY OF COPENHAGEN

Section of General Practice, Department of Public Health

Faculty of Health Sciences

Contact pattern in family practice in Denmark

John Sahl Andersen, GP, PhD, associate professor
Section of General Practice
University of Copenhagen



Dias 1

UNIVERSITY OF COPENHAGEN

Section of General Practice

Typical work schedule for a week-day

8.00 -9.00 telephone consultations: test results, renewal of prescriptions, advice on symptoms, triage (to consultation, home visits, acute/not acute service)

9.15 -12.30 Planned consultations

12.30-13.15 Lunch

13.15-15.00 Planned consultations/home visits

15.00-16.00 Paperwork, home visits

Some practices offer "open consultation" for 30-60 minutes daily for patients with smaller or acute problems without appointment.

Once a week late afternoon/evening consultations until 18.00 or 19.00

Dias 2

IT

All family practices are computerized (mandatory)

The software is developed to handle

- Patient records
- Electronic prescriptions to pharmacies
- Referrals to hospitals and specialists
- Lab tests
- Letters of discharge about patients from specialists, hospitals and laboratories.

Dias 3



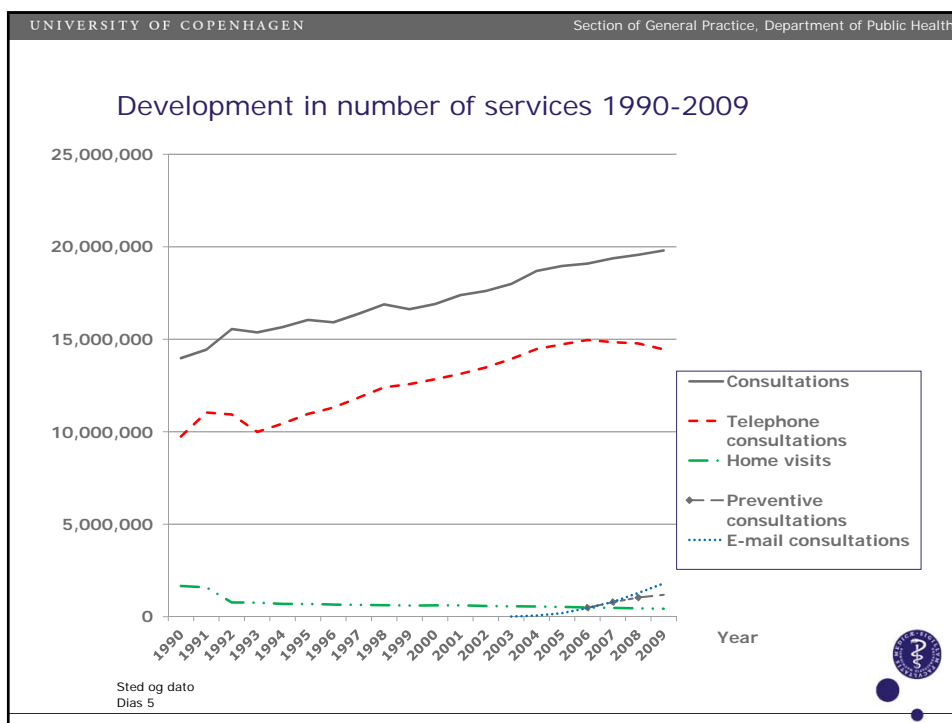
The number of services 2009

38.0 million in total (6.9 contacts per citizen)

- | | |
|-----------------------------------|-----|
| • Ordinary consultations | 52% |
| • Telephone consultations | 39% |
| • E-mail consultation | 5% |
| • Preventive health consultations | 3% |
| • Home visits | 1% |

Dias 4





UNIVERSITY OF COPENHAGEN Section of General Practice, Department of Public Health

Referrals

12.7% of all contacts result in referral to specialist, out-patient clinics at hospitals or hospitalization

This figure has increased 19% since 1993.

Dias 6

Out-of-hours service

Most family doctors have 2-4 monthly duties
between 16.00 and 08.00 and/or in week-ends
(duration 4-8 hours)

Three kinds of services: telephone consultations,
consultations in clinic, home visits.

Dias 7

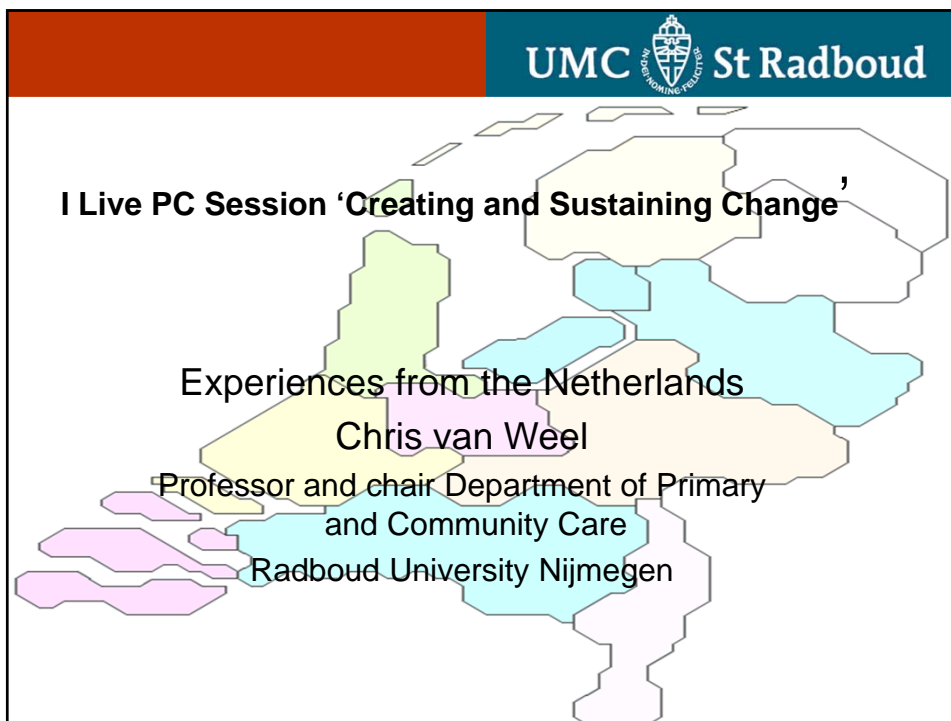



To become a specialist in family medicine

- Basic clinical training (KBU): 12 months (0/6 months in general practice)
- intro-position to general practice: 6/12 months (the latter if the junior doctor not attended general practice in the basic clinical training).
- Junior position I in general practice: 6 months
- Clinical training at hospital: 30 months
- Junior position II in general practice: 6 months
- Junior position III in general practice: 12 months

Sted og dato
Dias 8






UMC  St Radboud

I Live PC Session 'Creating and Sustaining Change'

Experiences from the Netherlands

Chris van Weel

Professor and chair Department of Primary and Community Care
Radboud University Nijmegen



UMC  St Radboud

**Ability to initiate, secure innovation:
rooted in history Dutch Primary Care**

- Strong societal tradition 1941 Sick Fund Decree
 - Universal coverage, led through patients listed with FP
- Strong academic basis 1968 Family Practice 'specialty'
 - Family medicine part all medical schools
 - Residency training & undergraduate teaching (all future doctors)
 - Research capacity building (MRC PhD program)
 - Collaboration Universities – Dutch College GPs (quality program)
- **Leadership** of primary care/FPs as much as competence
 - Professional development, including special interest training
 - Active engagement other professionals and third parties

Examples of success

- Menpower crises
 - 1975-1978 inclusion new generation ambitious FPs
 - 1999-2002 averted exodus older FPs through 'out of hours consortia'
- Revisions of health care
 - 1968-1978 introduction primary care teams/health centers
 - 1990s professional control or autonomy
 - 2002-2006 free access to primary care => primary care lead
- Research and evaluation part of most activities
 - 1989 and 2002 National Studies
 - 2004 report health council 'future Dutch primary care in European context'
 - <http://www.gezondheidsraad.nl/sites/default/files/summary%20primary%20care%20final.pdf>
(accessed 01-02-2011)

Concerns, limitations current situation

- Strong disciplines (FPs), yet poor interaction between sectors, disciplines
 - From 'strongholds to networks'
 - Maternity, neonatal health: professionals in isolation
- Failure to reach public health objectives
 - Connect public health with individual health care
 - Capitalize on prevention – smoking, tobacco
 - FP practice population opportunity
 - Flu vaccination for high risks as example
- Health care and welfare disconnected
 - Inappropriate health care, decrease in effectiveness
 - Care for the elderly, care for deprived populations
- Political: insufficient, reactive and opportunistic leadership
 - **Fair Trade Authority labeling 'collaboration, harmonization as 'monopoly'**
 - Need to rethink innovation strategies: 'front runner practices'

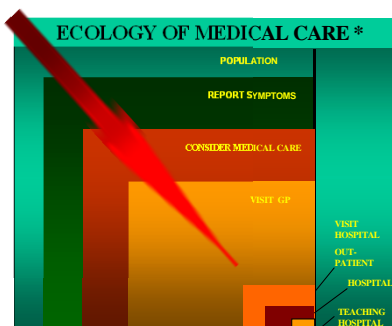
'Objective' of primary care-led health care

Care organized, delivered from patient's context:

- Preserve coherence Interventions
- Patients in their social context
- Preserve human scale
- Hospital often wrong place
 - (sub)specialists appropriate expertise

Safeguard Responsiveness

- When possible intervention => patient
- Only when needed patient => intervention



* White et al NEJM 1961
Green et al NEJM 2001

Professor Chris van Weel

Danger/scenario of opposing strongholds

Care organized, delivered from patient's context:

- Preserve coherence Interventions
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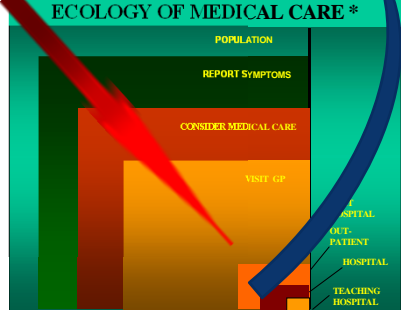
Professor Chris van Weel

UMC St Radboud

'Essential professional move to be made'

Care organized, delivered from patient's context:

- Preserve Coherence Interventions
- Patients in their social context
- Preserve human scale
- Hospital often wrong place
 - (sub)specialists appropriate expertise
- **Safeguard Responsiveness**
 - When possible intervention => patient
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* White et al NEJM 1961
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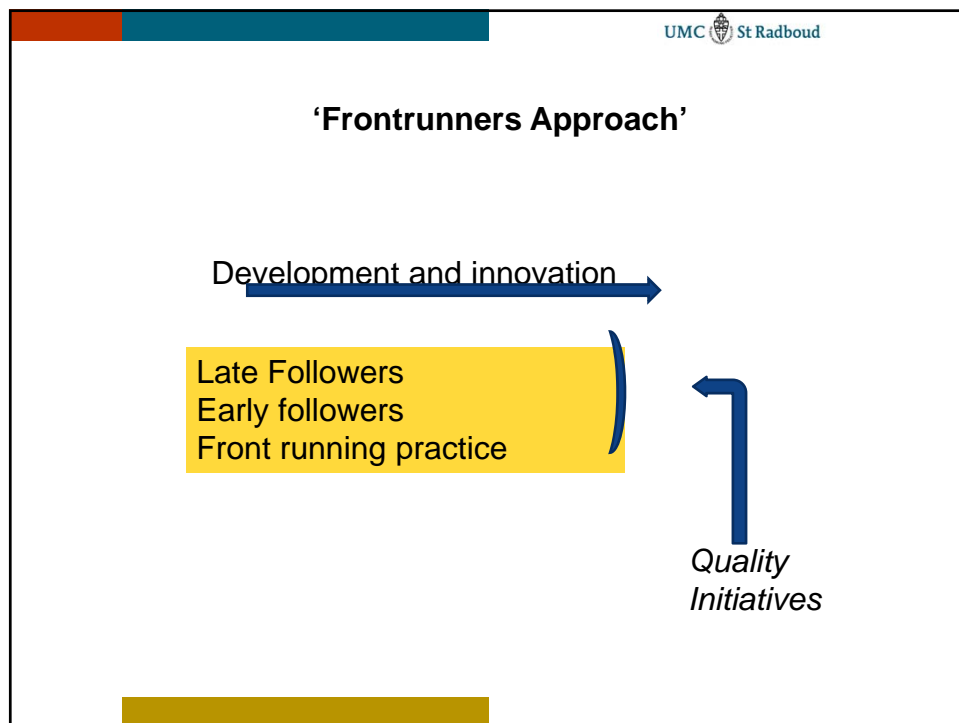
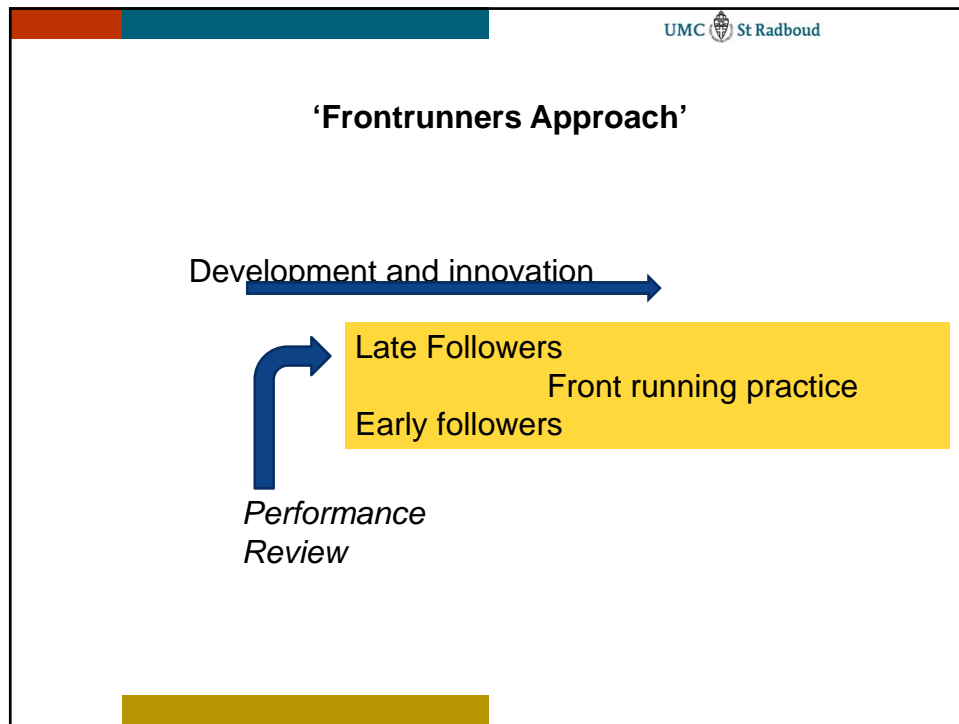
Professor Chris van Weel

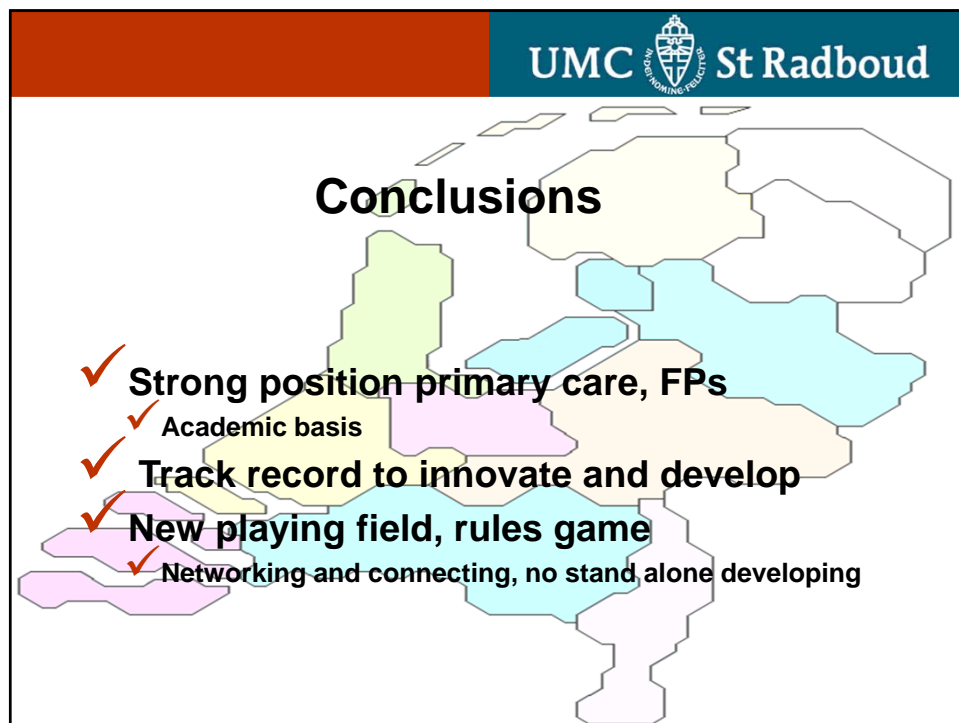
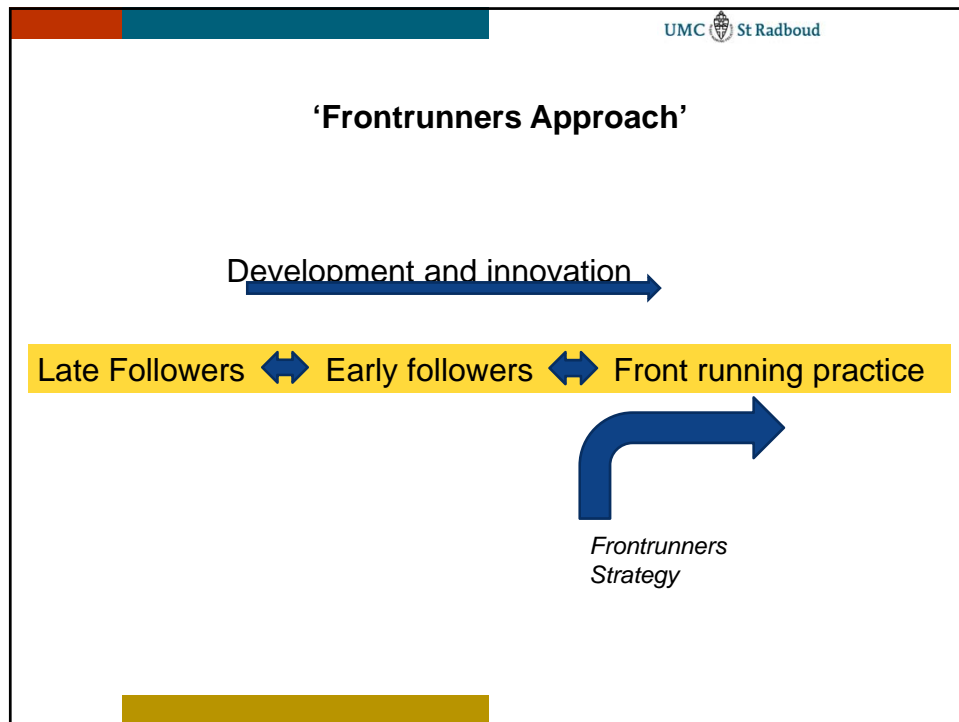
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'Frontrunners Approach'

Development and innovation →

Late Followers	Early followers	Front running practice
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Creating & Sustaining Change/Transformation - NZ

Felicity Goodyear-Smith, Jacqueline Cumming,
Robin Gauld, Paul McCormack, Bev O'Keefe, Harry Pert

International Learning on Increasing the Value &
Effectiveness of Primary Care (I LIVE PC)
4-5 April 2011 Washington, DC (Rockville, MD)



Dual drivers

- Perceived external threats
- Intellectual challenge & excitement to allow clinical leaders to step forward



Workforce & economic constraints

- Motivators for change – cannot continue as we are
- More multidisciplinary team work
- Review roles of doctors, nurses & other providers or assistants
- Support initiatives to increase self-management
- Value in blended payments but need right mix



Clinical engagement with policy direction

- Clinicians take more ownership of change management process
- Less focus on structures & more on relationship development
- Permissive policy environment (aiming for high trust) motivates sector to drive change
- Identify leaders & support them to step forward



Network model – moving umbrella



Integrated models of care

- *“Better, sooner, more convenient”*
- Bringing services into community
- EOI – 9 successful proposals
- Alliance teams involving funders, hospital & community providers
- Amalgamations & regionalisation



Whānau ora strategy

- Aim: Health & social services working together with whole families (single contract across range of services)
- For families in high need
- Stimulate cross-sector collaboration on wider determinants of health
- Will it work?



Investment in primary care IT

- National Health IT Board
- Why: Better information exchange across sector, quality improvement & quality assurance processes
- What: Core set of personal health information available electronically to patients & their treatment providers regardless of setting as they access health services



Bench-marking against peers

- Benchmarks to reduce provider variation
- Local network initiatives support peer review, benchmarking & modeling
- Bpac - utilization patterns compared to regional & national data



Balance of clinical, corporate & community governance

- **1990s -IPA era:** Clinical emphasis, sometimes corporate, some community
- **2000s -PHO era:** Community emphasis, reduction in clinical governance
- **2010s -Integrated era:** What is the right balance?

CHANGE

International Learning on Increasing the Value
and Effectiveness of Primary Care

Washington DC
4-6th April, 2011
James A. Dunbar

CHANGE

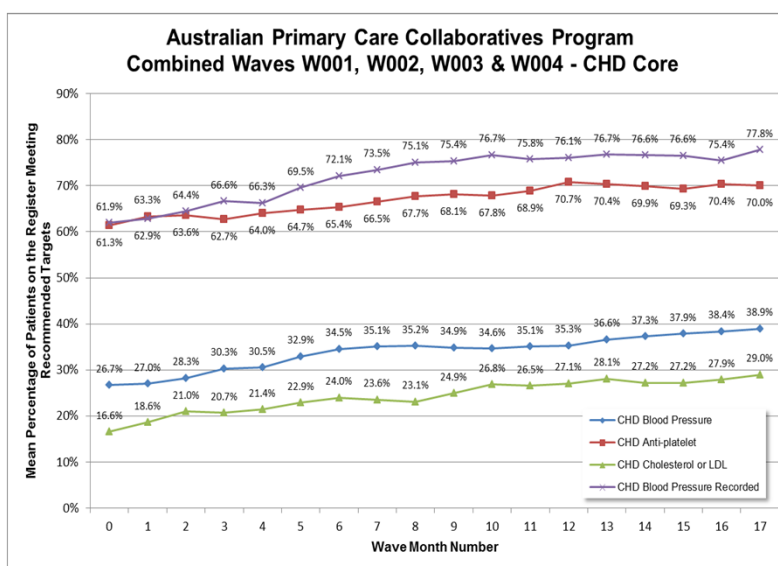
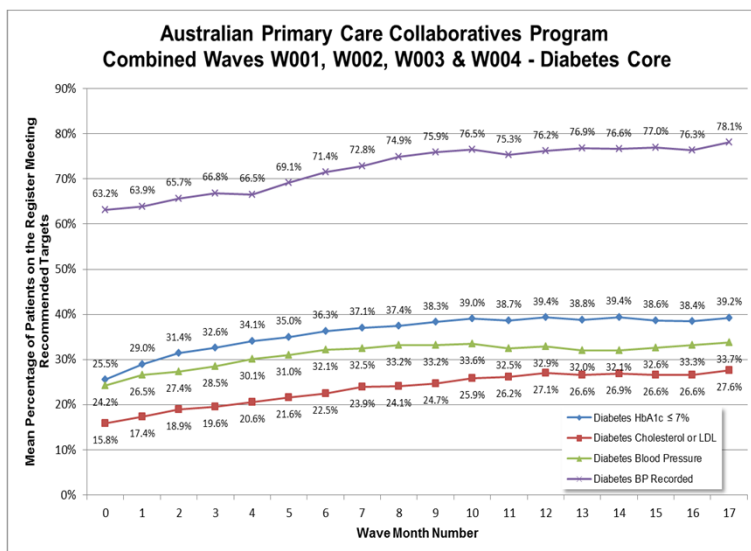
1. Federal Government
2. 'Collaboratives'
3. Australian General Practice Network
4. Australian Primary Health Care Research
Institute
5. National Institute for Clinical Studies

Australian Primary Care Collaboratives

- Demonstration of ability to collect improvement data within General Practice
- Acceptance of data collection for improvement
- Has driven policy change at National Level
- Effectiveness of Primary Care Intervention
- Framework for Preventative Activities in Primary Care

Australian Primary Care Collaboratives

- Enabled Clinical (process and outcome) KPIs for regional “Medicare Locals”
- Led to development of Practice Nursing with specific roles in General Practice – CDM, Risk Factor Assessment incl depression screening, Preventative Activities (DPP) underpinned by measurement
- Understanding of “how change occurs” within Primary Care / General Practice



Computerisation

- Confidentiality
- Consumer involvement
- Clinician involvement, training & support
- Clinical focus
- Compatible systems
- Common record structure
- Communication standards
- Change management
- Cash
- EVALUATION

ANY QUESTIONS?





Quality assurance in General Practice in Denmark

Jens Søndergaard, MD, PhD
Professor, head of Research Unit for General Practice
University of Southern Denmark

www.sdu.dk/ist/almenpraksis
jsoendergaard@health.sdu.dk

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Quality assurance

National level

- Guidelines and recommendations (Danish College of General Practitioners and National Board of Health)
- Data capture and patient evaluations (DAK-E)
- Courses and postgraduate education (Audit Project Odense and others)

Regional level

- Courses, economic incentives, local initiatives

Jens Søndergaard

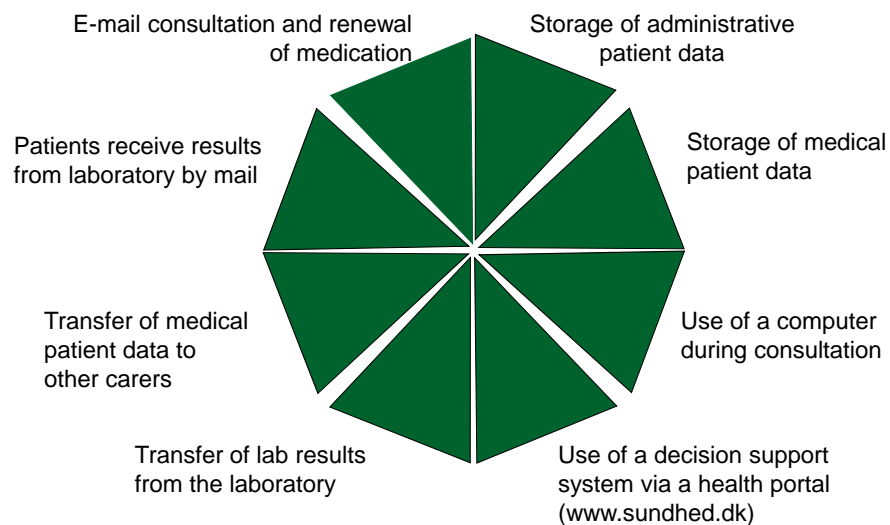
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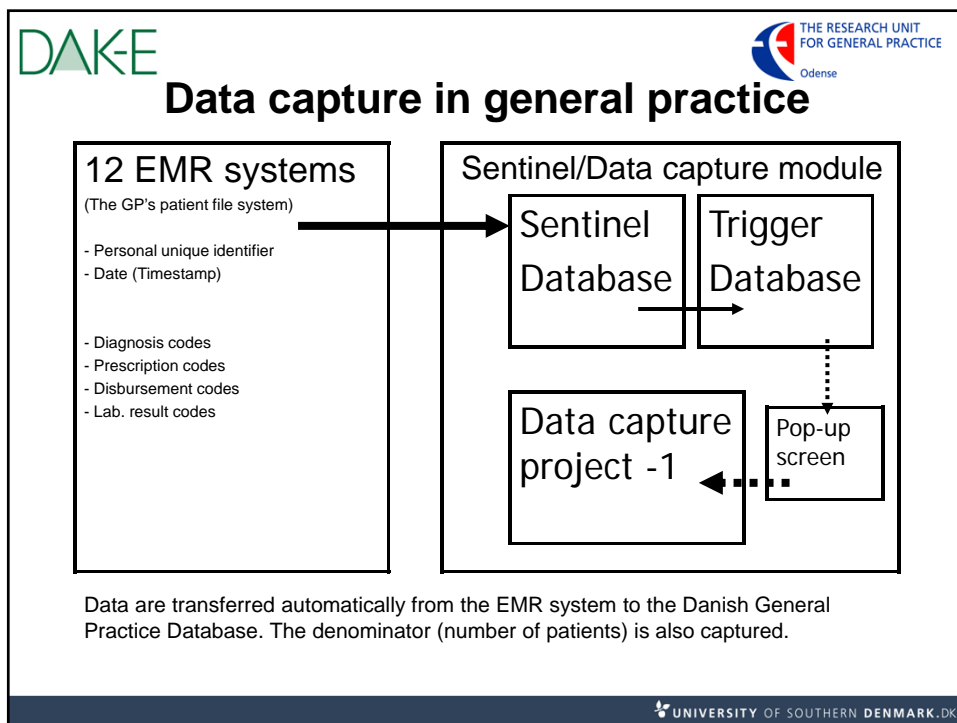
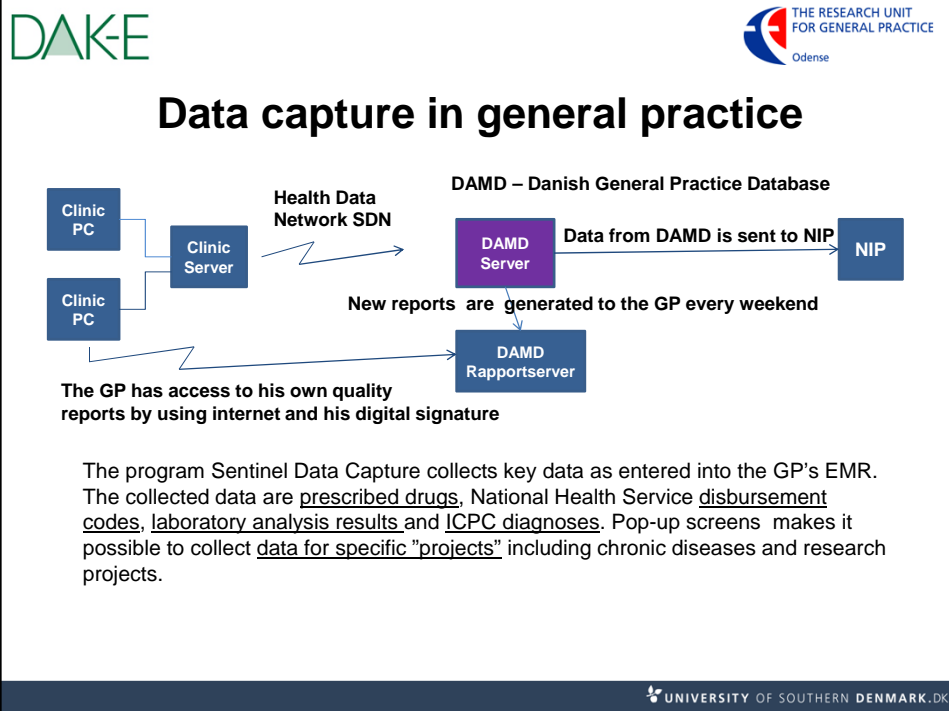
Funding

The agreement between the GPs trade union and the Danish Regions allocates funds to three units

Continuing education fund	Research fund	Quality and Informatics foundation
Resources to:	Resources to:	Resources to:
Continuing education of the individual GP	3 research units	Danish Quality Unit of General Practice (DAK-E)

Denmark has the worlds' most "computerised" general practice





Data

- Prescription register, administrative registers, hospital registers
- DAMD – Danish General Practice Database:

Diagnosis
Drugs
Services provided
Test results

Patient: 0102031021 Test Testesen

Projekt: Kronisk obstruktiv lungelidelse (KOL)

☐ Ja Har patienten kronisk obstruktiv lungelidelse (FEV1/FVC < 70%)

☐ Nej

Udsæt årskontrol

Aftal tid til årskontrol ☐

Co-morbiditet*

☐ Ja Har patienten andre konkurrerende sygdomme?

☐ Nej

MRC-skala*

☐ Jeg har for meget åndenød til at forlade mit hjem, eller jeg får åndenød når jeg tager mit tøj på eller al.

☐ Jeg stopper for at få vejret efter ca. 100 meter eller efter få minutters gang.

☐ Jeg går langsommere end andre på min alder, pga. min åndenød.

☐ Jeg får kun åndenød når jeg skynder mig op ad en lille bakke.

☐ Jeg får kun åndenød når jeg anstrenger mig meget.

Eksacerbationer*

Antal eksacerbationer indenfor det sidste år:

Fysisk aktivitet*

☐ Fysisk træning er umuligt.

☐ Udgår selv i let træning.

☐ Deltager i let træning.

☐ Deltager i moderat træning.

☐ Deltager i anstrengende træning.

☐ Deltager i konkurrenceidræt.

Fysisk aktivitet - beslutning/aftale

☐ Givet råd

☐ Givet råd + aftalt opfølgning

☐ Henvist til fysisk aktivitet

☐ Henvist til fysisk rehabilitering

Samtale gennemført

☐ Motion Samtale om status for KOL og planlægning af behandling i henhold til DGI's vejledning, givet indenfor det sidste år.

☐ Kost

☐ Vægt

☐ Medicin

Husk at udfylde højde, vægt og rygestatus i laboratorieskemaet.

Udfyld senere

7

Sentinel Datafangst

Patients with Diabetes M

Benchmark page 1

Benchmark page 2

Patients with Diabetes Mellitus. (Constructed/anonymous name list)

51 patients out of 1719 patients (3.0 %)

Data extracted: Thursday 25 February 2010 10:53:53

How to read data

Improve quality

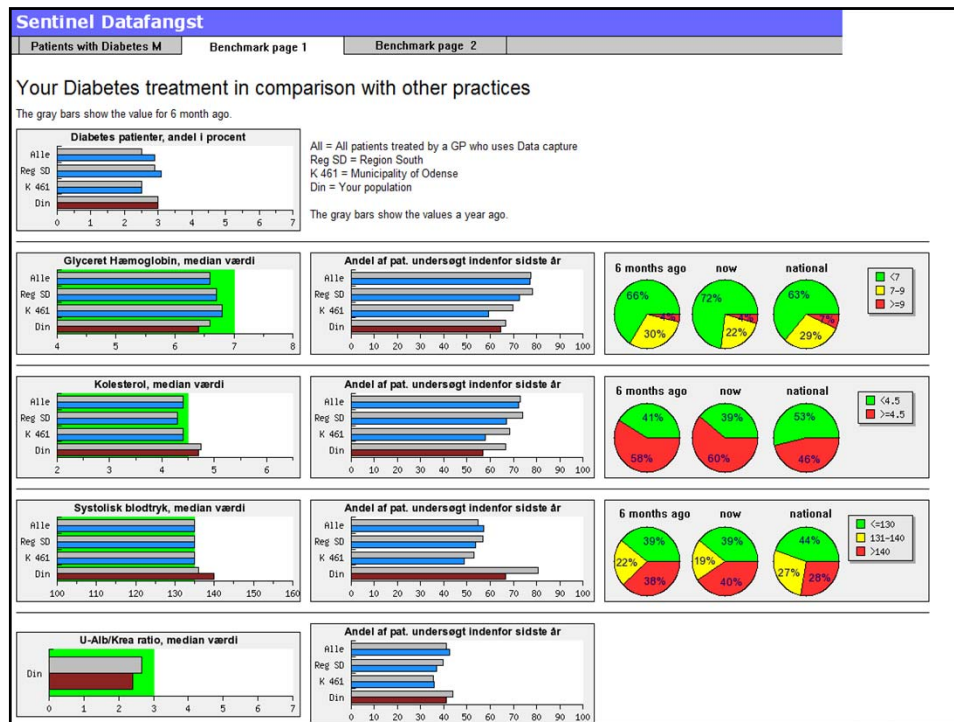
Print this page

First Name	Personal id	Age	HbA1c	Treat-ment given as	S-Chol	U-Alb	Lipid lower*	ACE/ Ang II inhib*	BP	Drugs for BP	BMI	Smok-ing	Last GP	Re-spons-ability	Birth month	Last annual control
Allan	190235-xxxx	75			6.2					0		bt	GP		2	
Anders	070278-xxxx	32								0		no	mvw	GP	2	4 jan 2008
Bent	030221-xxxx	89	0.063		5.5	14.5			125/65	0	20	wrbaa	GP	2		
Bente	150268-xxxx	42	0.070		4.7			yes	148/89	2		bt	GP	2		
Birgit	150846-xxxx	63	0.082	p	2.9	1.9	yes	yes	130/90	2	30	no	bt	GP	8	14 dec 2009
Birthe	230557-xxxx	52			4.1		yes		0	15		is			5	
Bjarne	050942-xxxx	67	0.078	p	4.7	3.1	yes	yes	150/80	1	35	bt	GP	9		
Brian	201166-xxxx	43			5.4				105/75	0		bt			11	
Camilla	231175-xxxx	34	0.068		3.3	*			130/80	0	30	bt	hosp		11	
Carsten	060840-xxxx	69		i			yes	yes	130/80	2		bt	hosp		8	
Charlotte	170730-xxxx	79	0.058		4.1		yes		105/60	1		bt	GP	7		
Christian	231035-xxxx	74	0.067	i	2.8		yes	yes	133/73hj	3		bt	hosp	10		
Claus	140533-xxxx	76	0.065		4.9	*			150/85	0	32	yes	bt	GP	5	13 mar 2009
Enk	130435-xxxx	74	0.070	p	3.0	*	yes	yes	145/70	1	36	yes	bt	GP	4	17 jun 2009
Finn	090459-xxxx	50	0.048		4.1	*			120/85	1	37	no	bt	GP	4	17 apr 2009
Flemming	090640-xxxx	69	0.050	p,i	4.2	3.7		yes	150/95	1	18	bt	GP	6		
Gitte	070154-xxxx	56	0.056		4.0	*	yes	yes	125/70	1	27	no	bt	GP	1	29 apr 2009
Hanne	230760-xxxx	49	0.061		4.4		yes	yes	152/108	1		no	bt	GP	7	12 jun 2008
Helle	070856-xxxx	53	0.074	i	6.0	*	yes		170/90	1	33	yes	bt	GP	8	14 aug 2009
Henning	290444-xxxx	65	0.064	p	5.0		yes		130/80	0		bt	hosp	4		
Henrik	261128-xxxx	81	0.089	i	4.7	*		yes	130/75	2	30	bt	GP	11	6 nov 2008	
Inge	280139-xxxx	71	0.076	p	3.5	*	yes	yes	150/90	2	33	no	bt	GP	1	15 feb 2010
Jan	240155-xxxx	55	0.065		5.5	*	yes	yes	129/81	1	27	yes	bt	GP	1	27 jan 2010
Jens	110143-xxxx	67	0.072	p	4.5	*		yes	135/85	3	26	no	bt	GP	1	16 feb 2010
Jesper	020938-xxxx	71	0.057		5.6			yes	120/70	3	27	bt	GP	9		

* Has received a prescription within the last 2 years. A star * indicates that measurement is made, but the result is not usable.

An arrow shows that there has been a change in the measured value since the previous control, green arrow indicates improvement while red arrow indicates worsening. All personal names in this demo are constructed

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All personal names in this demo are constructed



DAKE

THE RESEARCH UNIT
FOR GENERAL PRACTICE
Odense

Advantages

- Overview of quality of care for all patients – for the individual GP and at regional and national level
- Important tool for research and quality development
- Patients have online access

Barriers

- Patients' and GPs' wishes of privacy protection
- New technology

Web-site:

http://sentinel.finnsen.dk/demo_tilbage meldinger/engelsk/diabetes/index.html

Nederlands Huisartsen Genootschap Dutch College of General Practitioners

55 Years Development and Quality Improvement



I LIVE PC CONFERENCE, WASHINGTON APRIL 2011

Quality and Safety

- **Training and Revalidation**
- **Practice accreditation**
- **Guidelines**
 - Medical
 - Registration
 - Practice organisation
 - Interdisciplinary cooperation
- **Patient Safety**



I LIVE PC CONFERENCE, WASHINGTON APRIL 2011

Training and Revalidation

- 3 years vocational training
- 5 years cycle
- Working in practice > 2 days (full population)
- 40 CME credit points a year
- Out of hour service ≥50 hours a year



I LIVE PC CONFERENCE, WASHINGTON APRIL 2011

Our Guidelines our responsibility

- > 20 years medical guideline development and professional development
- >100 professional guidelines and inter/ multidisciplinary guidelines
- Standards for registration and ICT systems



I LIVE PC CONFERENCE, WASHINGTON APRIL 2011

Patients Safety

Practice organisation	Medication
Cooperation and information	Acute Life threats
Personal dysfunction	Accessibility
Triage	Frail elderly
ICT	Safety Systems
Infections	Rare diseases



I LIVE PC CONFERENCE, WASHINGTON APRIL 2011

Practice Accreditation

- 3 years cycle
 - Practice assessment and feedback report
 - Visit assessor
 - Quality improvement programs
 - Visit assessor
- Team effect
 - Focus on improvement



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Quality and Outcome Assessment

- National Survey of the health of the population
- Local health authorities
- Indicators
- Rankings (newspapers etc.)
- No Feedback system (developing cooperating)
- ICT systems in daily practice (difficult market)



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Team GP practice

- Practice assessment
 - Administrative triage
 - Lab and procedures (injections, smears etc.)
- Practice nurse
 - Chronic disease management (protocols)
- Practice nurse mental health
 - 5 consultations (diagnostic/therapeutic)



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GP first points of contact

All health questions - All people



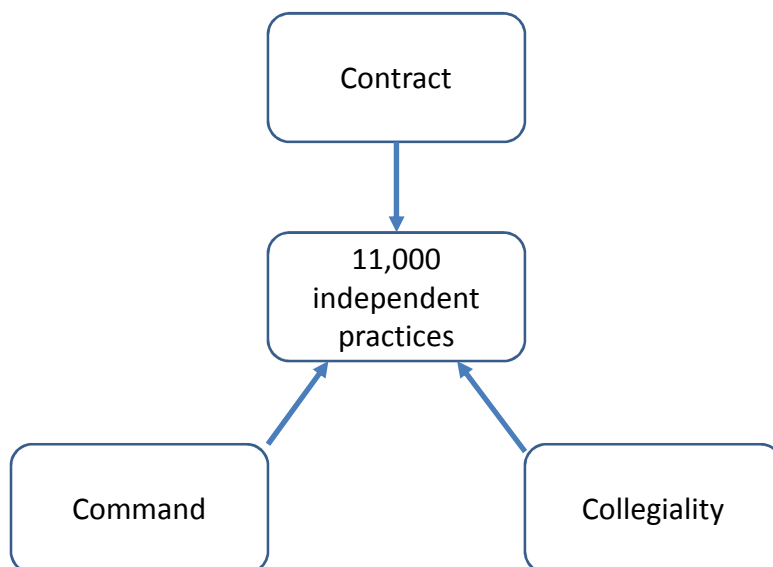
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International Learning on Increasing the Value and Effectiveness of Primary Care - UK Quality and Safety

Bruce Guthrie

Professor of Primary Care Medicine University of Dundee
Chair NICE QOF Indicators Advisory Committee Thresholds,
Retirements and Review Subgroup

Governing UK General Practice



Historical

- Authority and influence is always a blend
- Collegiate
 - Voluntary activity in and between practices
 - Royal College of General Practitioners
 - Prescribing feedback and advice (originally)
 - Guidelines and National Service Frameworks
- Contract
 - Various small fee-for-service incentives
 - 1990 contract (more capitation, a few target payments)
 - Local variations (eg prescribing advice increasingly uses incentive schemes)
- Command
 - Often voluntary eg training practices 'choose' regulation

2004 nGMS Contract

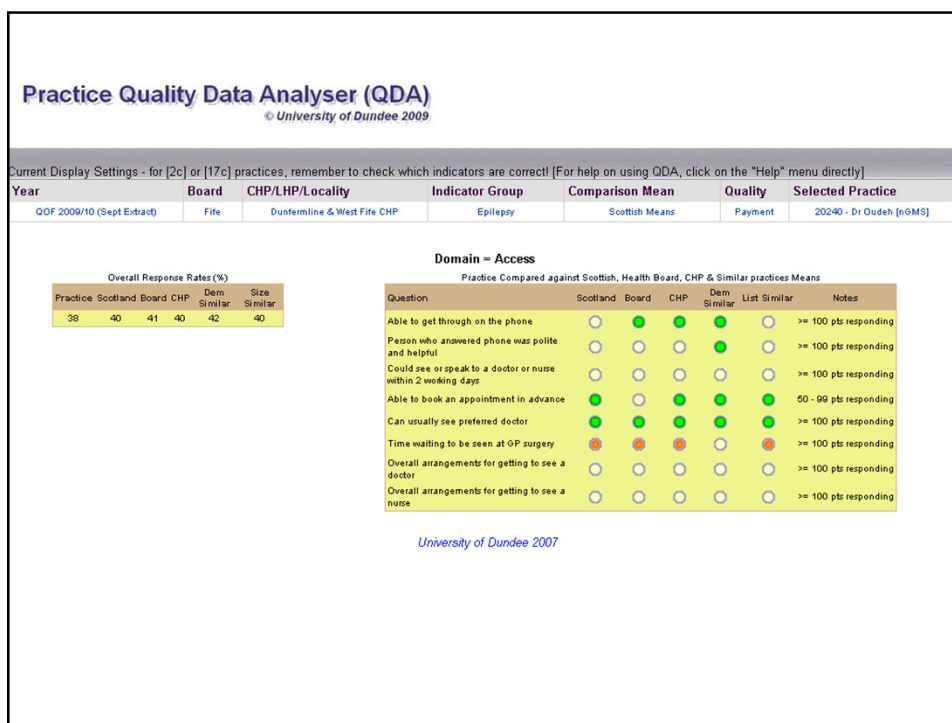
- Global sum (70-75% of income)
 - Weighted capitation rolls up previous complexity
 - Payment for necessary services
- Quality and Outcomes Framework (20-25%)
 - Pay for performance vs 150 indicators
 - Voluntary but virtually everyone volunteers
- Enhanced Services (5%)
 - Payment for optional services, typically less well defined/monitored than QOF
 - Voluntary but the vast majority volunteer

Quality and Outcomes Framework

- 75 clinical indicators
 - Registers for common/important diseases
 - Processes eg proportion of people with diabetes with BP measured; with retinal screening
 - Intermediate outcomes eg proportion of people with diabetes with $BP \leq 145/85$; with $HbA1c \leq 7$
- 75 organisational indicators
 - Varying specificity eg proportion of patients aged ≥ 45 with BP recorded in last 5 years; access to information about child protection locally
- Performance translated to 'points' then to £££

Quality and Outcomes Framework

- Always more to it than a contract to pay money
 - Pay for performance to centrally set indicators
 - Public reporting (mostly of 'points')
 - Reporting & feedback in the NHS (closer to 'quality')
 - Initially very strongly linked to shared ideas of 'good practice' (maybe less so recently)
 - Guideline translation/implementation
 - Technical and improvement facilitation and support
- Many other continuing QI initiatives
 - National guidelines, prescribing improvement (£), clinical networks, enhanced services, voluntary accreditation



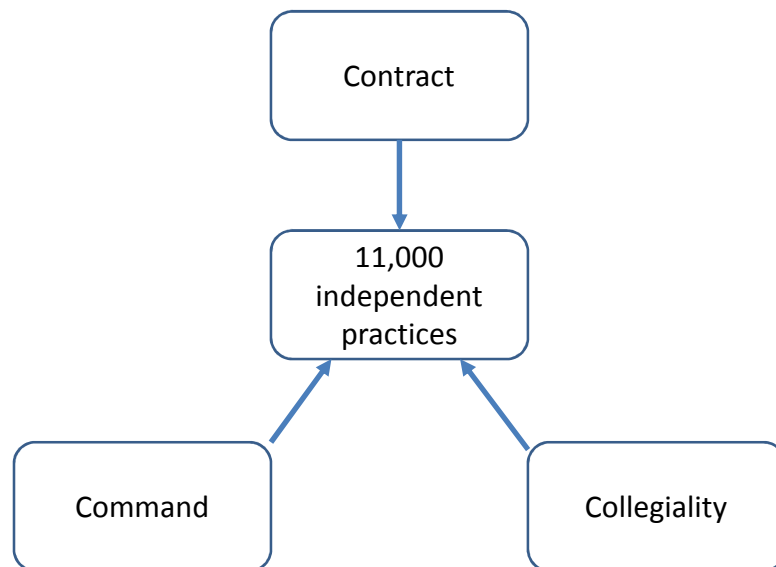
Technology and teams

- How did GPs ever manage without an electronic medical record?
 - Almost impossible to conceive of delivering QOF
- Increasing role of practice-employed nurses doing chronic disease management
 - Continuing role of district nurses, health visitors
 - Growth in hospital based specialist nurses
- Shift to employed/salaried GPs
 - The contract is now with the practice not the GP
- Risk of ignoring the Primary Care Organisation
 - Practices probably lack capacity to consistently lead QI

Where next for QOF? A personal view

- Increased focus on outcomes
 - Government policy
 - Most 'linked' process measures dropped this year
- Increased focus on system priorities?
 - Prescribing costs, referrals, emergency admissions
- Will probably have to address multi-morbidity
 - Pay at patient rather condition level?
- Composite/all-or-nothing indicators
 - Pay for reliability at patient level?
- Doing more to earn the same...
- Growth of non-QOF quality & safety improvement

Governing UK General Practice



Thank you!

Payment and Incentives: UK

How have payment systems been used to drive:

- Quality
- Co-ordination
- Accountability
- Efficiency



Payment and Incentives: UK

How have payment systems been used to drive:

- Quality
- Co-ordination
- Accountability
- Efficiency

Nationally rolled out scheme of 'community matrons' providing case management of frail elderly.

National scheme of 'integrated care pilots'

Many small local schemes



Payment and Incentives: UK

How have payment systems been used to drive:

- Quality
- Co-ordination
- Accountability
- Efficiency

National contract drives most GP payments

‘Hands off’ approach to QOF claims

Concern about GPs holding budget for 80% of specialist / hospital care from 2013. Start of pressure for GP accounts to be published



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CAMBRIDGE

Payment and Incentives: UK

How have payment systems been used to drive:

- Quality
- Co-ordination
- Accountability
- Efficiency

Longstanding and effective schemes for prescribing efficiency

Piecemeal schemes to put downward pressure on referral now becoming explicit (QOF and commissioning incentives)



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CAMBRIDGE

How should doctors be paid?

Salary	Pay independent of workload or quality
Capitation	Pay according to the number of people on a doctor's list
Fee for service	Pay for individual items of care
Quality	Pay for meeting quality targets



School of
Clinical Medicine



What would you get without professionalism?

Salary	Pay independent of workload or quality
Capitation	Pay according to the number of people on a doctor's list
Fee for service	Pay for individual items of care
Quality	Pay for meeting quality targets



School of
Clinical Medicine



What would you get without professionalism?

Salary	Do as little as possible for as few people as possible
Capitation	Do as little as possible for as many people as possible
Fee for service	Do as much as possible, whether or not it helps the patient
Quality	Do a limited range of worthy tasks, but nothing else



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CAMBRIDGE**

**School of
Clinical Medicine**



Refashioning Primary Care Physician Payment in Canada

Marsha Barnes
Assistant Deputy Minister for Health, Social, Education &
Children's Policy
Cabinet Office
Government of Ontario

I LIVE PC, Washington, DC, April 4, 2011

Principle Features

- Marked interprovincial variability
- Voluntary participation by physicians in new payment models
- Pluralism of payment models (especially in Ontario)
- Negotiated agreements with provincial medical associations

Key Lessons from Earlier Experience

- No single funding or payment method holds the key to primary health care transformation
- Changing physician payment methods may facilitate but does not ensure change in the organization and delivery of care
- Organizational change and improved quality of care are achievable in the context of varied arrangements for physician remuneration

Direction of Movement

- Away from pure fee-for-service, capitation or salary payment
- Toward blended payment schemes

Blended Payment Models

- Varying combinations of fee-for-service, capitation, salary, and targeted payments
- Primary payment method may be fee-for-service, capitation or salary
- All include financial incentives designed to encourage priority services or desired care processes and outcomes

Variation Across Provinces and Territories

- BC, Alberta, Quebec: fee-for-service-based blended payment schemes
- Northwest Territories: salary
- Manitoba: pay-for-performance
- Ontario: fee-for-service-, capitation- and salary-based blended payment arrangements; pay-for-performance for preventive care

Changing Distribution of Payment Models in Ontario

Payment Model	2002	2011
Traditional Fee-for-Service (FFS)	94%	33%
FFS-Based Blended Payment		29%
Capitation-Based Blended Payment	2.2%	32%
Capitation	1.6%	
Salary	1.4%	2.6%
Salary-Based Blended Payment	0.9%	1.4%
Other		1.5%

“The future is already here. It’s just very unevenly distributed.” (William Gibson)

Examples of success

- Menpower crises
 - 1975-1978 inclusion new generation ambitious FPs
 - 1999-2002 averted exodus older FPs through 'out of hours consortia'
- Revisions of health care
 - 1968-1978 introduction primary care teams/health centers
 - 1990s professional control or autonomy
 - 2002-2006 free access to primary care => primary care lead
- Research and evaluation part of most activities
 - 1989 and 2002 National Studies
 - 2004 report health council 'future Dutch primary care in European context'
 - <http://www.gezondheidsraad.nl/sites/default/files/summary%20primary%20care%20final.pdf>
(accessed 01-02-2011)

Concerns, limitations current situation

- Strong disciplines (FPs), yet poor interaction between sectors, disciplines
 - From 'strongholds to networks'
 - Maternity, neonatal health: professionals in isolation
- Failure to reach public health objectives
 - Connect public health with individual health care
 - Capitalize on prevention – smoking, tobacco
 - FP practice population opportunity
 - Flu vaccination for high risks as example
- Health care and welfare disconnected
 - Inappropriate health care, decrease in effectiveness
 - Care for the elderly, care for deprived populations
- Political: insufficient, reactive and opportunistic leadership
 - **Fair Trade Authority labeling 'collaboration, harmonization as 'monopoly'**
 - Need to rethink innovation strategies: 'front runner practices'

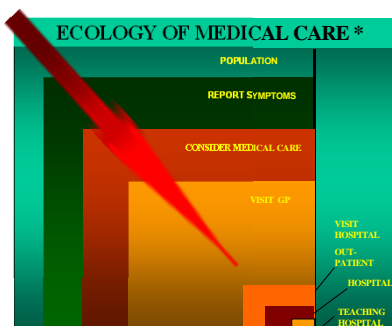
'Objective' of primary care-led health care

Care organized, delivered from patient's context:

- Preserve coherence Interventions
- Patients in their social context
- Preserve human scale
- Hospital often wrong place
 - (sub)specialists appropriate expertise

Safeguard Responsiveness

- When possible intervention => patient
- Only when needed patient => intervention



* White et al NEJM 1961
Green et al NEJM 2001

Professor Chris van Weel

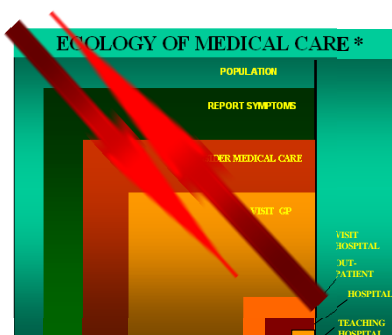
Danger/scenario of opposing strongholds

Care organized, delivered from patient's context:

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Professor Chris van Weel

UMC St Radboud

'Essential professional move to be made'

Care organized, delivered from patient's context:

- Preserve Coherence Interventions
- Patients in their social context
- Preserve human scale
- Hospital often wrong place
 - (sub)specialists appropriate expertise
- **Safeguard Responsiveness**
 - When possible intervention => patient
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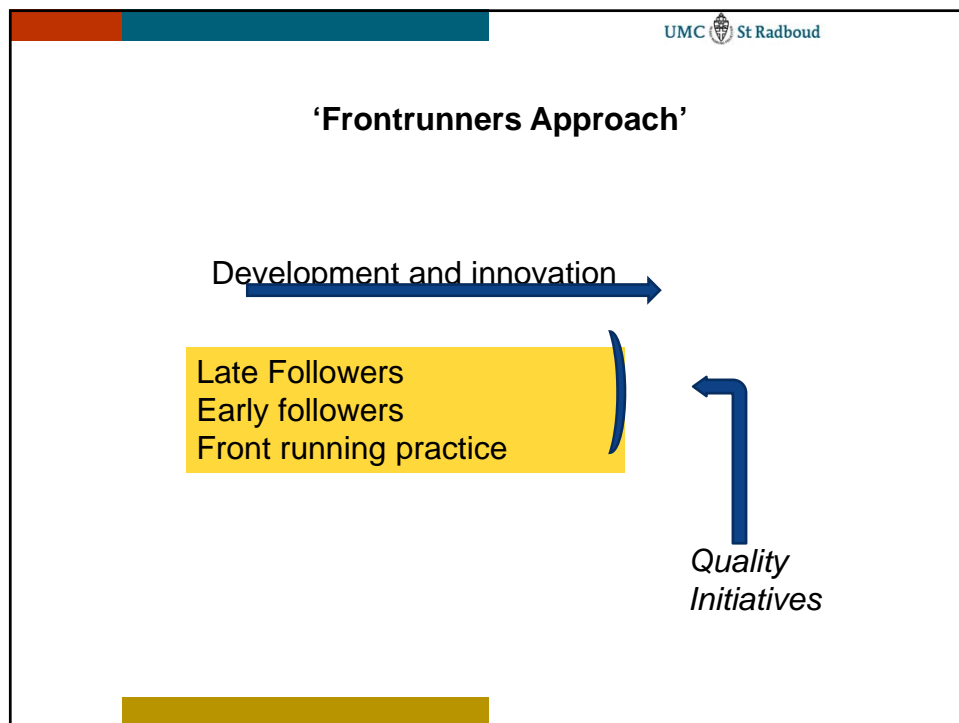
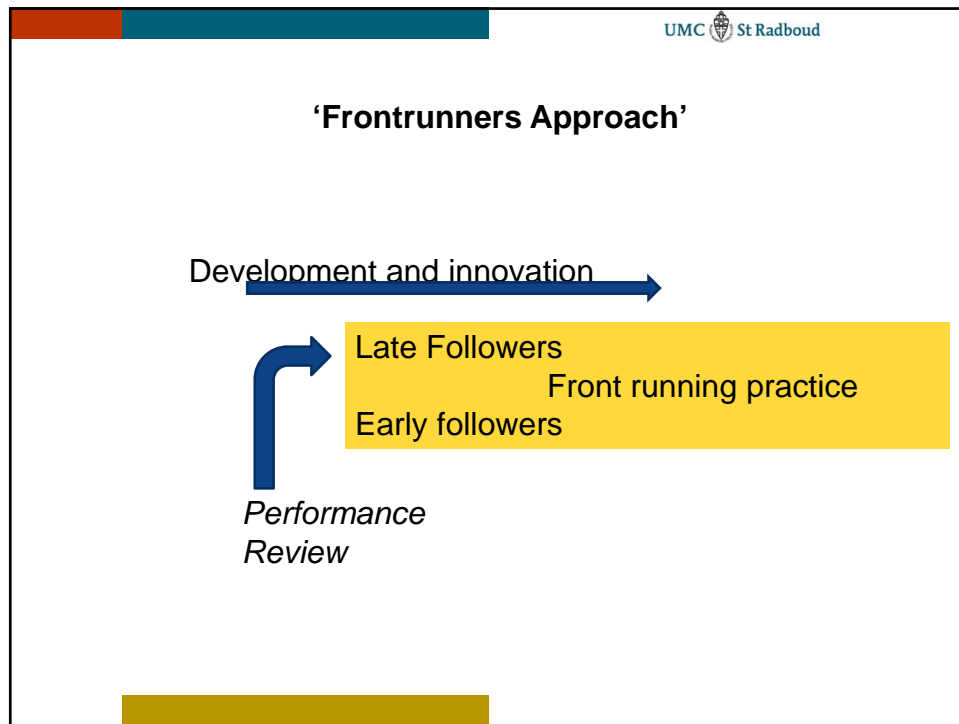
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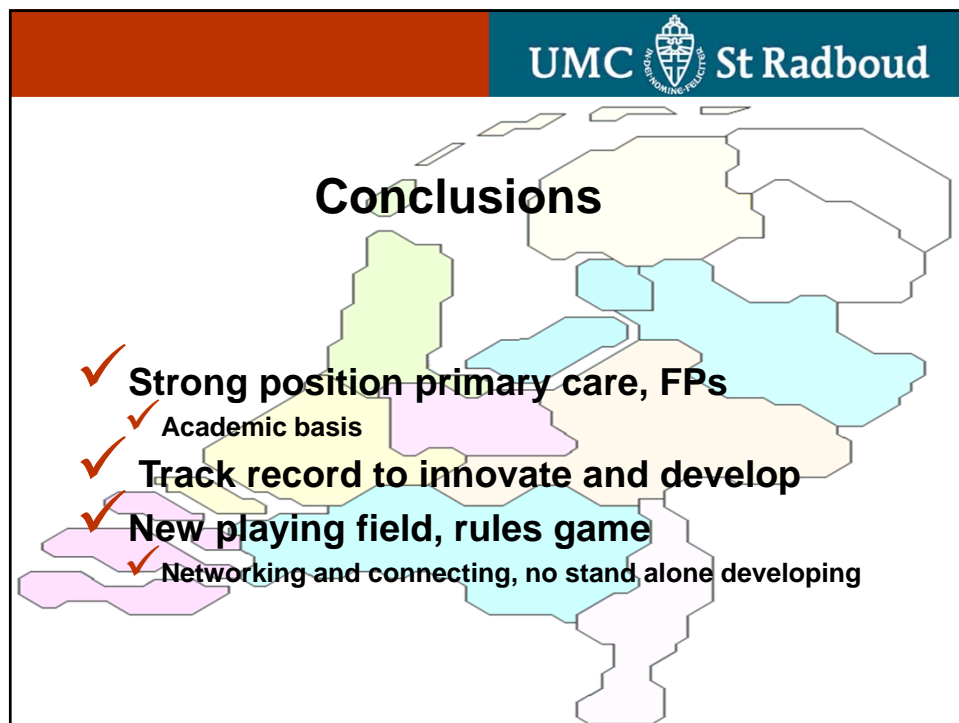
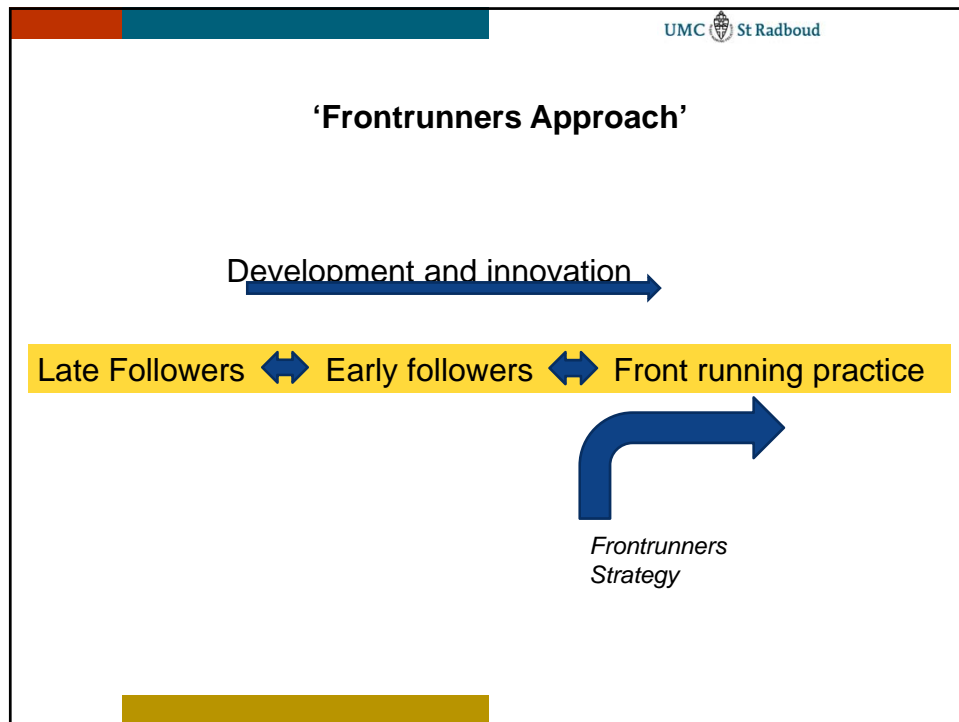
UMC St Radboud



'Frontrunners Approach'

Development and innovation →

Late Followers Early followers Front running practice







UMC St Radboud

The Dutch system: an outline of FP care

- ✓ 1 FP per 2200 inhabitants
- ✓ FP is gatekeeper to secondary care
- ✓ No other generalists in primary care
- ✓ Specialist care is - almost - exclusively hospital care
- ✓ List system, patients reluctant to change GP (and insurer)
- ✓ Majority self employed; soloists, groups, health centres

UMC St Radboud

The Dutch system: before the 2006 New Health Insurance Act

Mixed system

- ✓ Private 35% voluntary; private insurance companies
- ✓ Public 65% compulsory; sickness funds


2% uninsured

Hardly any incentives for FPs, no market





The Dutch system: call for a change

- ✓ need for cost containment
- ✓ the expenses associated with the aging population
- ✓ long waiting lists for procedures
- ✓ absence of innovation in the health sector
- ✓ a need for more consumer choice



New Health Insurance Act 2006



- ✓ Regulated Market system, acceptance mandatory
- ✓ Supply driven towards demand driven
- ✓ Competition principle is not suitable for primary care
(continuity of care, personal care, coordination)
- ✓ Government's role reduced to umpire; ensuring fair competition among private health insurance companies and protecting consumers

New Health Insurance Act 2006



Results

- ✓ Only 5 large Private Health insurance companies left
- ✓ Health care authority is very regulating, fixed fees
- ✓ For FPs little has changed
- ✓ Few patients change health insurer
- ✓ Few patients change FP
- ✓ 1.5% uninsured
- ✓ Costs rise..

The Dutch system: incentives for FPs

- ✓ Day care: payment 65% fixed (list principle), 35% “performance” (consultations: 9 euro’s/ consultation)
- ✓ Out of hours: cooperatives 50-500 GPs (coverage >95%), non-profit principle, payment on hours performance
- ✓ DRGs (DBC) for the big 4 (diabetes, COPD, CVRM, heart failure) under construction, reluctance insurers (coverage diabetes 60-80%?)
- ✓ Overall full time income: euro 100.000-120.000



The Dutch system: incentives (<10% of income)

- ✓ Modernisation & Innovation (surgery, leg ulcers, cyriax injections, elderly in nursing homes (shift secondary > primary care)
- ✓ Certification
- ✓ Excellent prescribing/ referring
- ✓ Integrated Primary Care incentives (multidisciplinary primary care programs < 10% of FPs)
- ✓ Pay for performance, fundholding?
- ✓ Coordination etc is not being paid