Health Canada – in-camera webinar
for federal/provincial/territorial government representatives, including
members of the committee on Health Workforce

Health Workforce New Zealand : Forecasting Methodology

Presenter:

Professor Des Gorman,

Executive Chair, Health Workforce New Zealand
and
Professor of Medicine and Associate Dean,
Faculty of Medical and Health Sciences,
University of Auckland

1. Teleconference: (All audio via teleconference)
1 866 261 6767 or in Toronto: 416 850-2050 PARTICIPANTS PASSCODE: 5528549 #

2. Internet Conference – Adobe Connect :
http://137.122.181.127/fschat2 *(Enter your name, enter as a Guest – no login required)*

www.chnet-works.ca
Canadian Health Human Resources Network
University of Ottawa

1

Housekeeping : how a Fireside Chat works...

Step #1: *Teleconference*
1 866 261 6767   or in Toronto : 416 850-2050
  PARTICIPANTS PASSCODE 5528549#

All Audio by telephone
- If your line is 'bad' – hang up and call back in
- Participant lines muted
- Recording announcement

Step #2: *The Internet Conference (via 'ADOBE CONNECT')*

http://137.122.181.127/fschat2 *(Enter your name, enter as a Guest)*

No audio via internet
- *SEE the PowerPoint being shown.*
- *Post your comments/questions.*
- *See postings from your colleagues.*
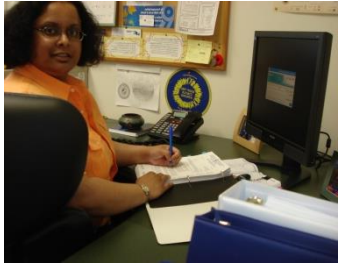- *Join in the interactive polls.*

 Difficulties? *You can still participate! use the back up PowerPoint –*
   Post your comments: rsvp to the access instructions email: Julie Thorpe (julie.thorpe@hc-sc.gc.ca)

Step #3: *Back up PowerPoint Presentation*

For assistance: animateur@chnet-works.ca

Please post your comments/questions during the presentation

Joining in by Telephone

+

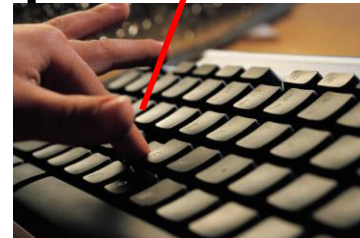**Adobe Connect Internet Conference**

Use the text chat box!

Please introduce yourself!

- *Name*
- *Organization*
- *Location*

- *Group in Attendance?*

Joining by Telephone

+

Backup PowerPoint
By email:
Respond to the 'access instructions email :
Julian Ringrose (julian.ringrose@hc-sc.gc.ca)

3

Introductions

- *Recording will begin now.*

- Introductions:

  Julian Ringrose,

  Policy Analyst

  Health Care Programs and Policy Directorate,

  Strategic Policy Branch

  Health Canada

Presenter

Des Gorman,

Executive Chair,
Health Workforce New Zealand

Professor of Medicine and Associate Dean,

Faculty of Medical and Health Sciences,
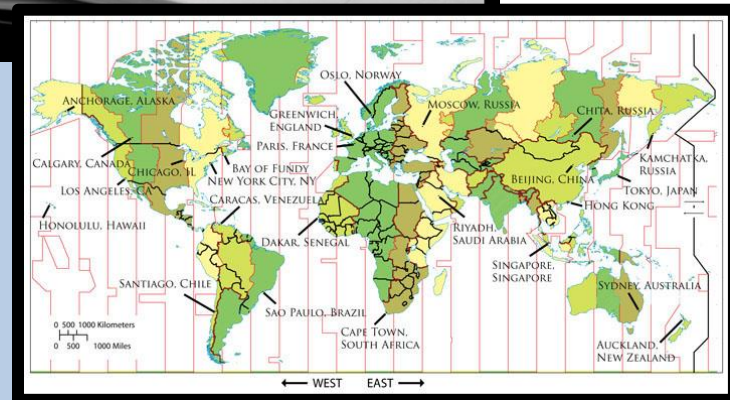
University of Auckland

Health of the Health Workforce 2013-2014
http://www.nzdoctor.co.nz/media/3584219/health-of-health-workforce-2013-to-2014.pdf

Poll Question for Participants:
If it is February 19, 2015 : 2:30 Eastern Time in Canada

What date/time is it in New Zealand?

- 8:30 AM Feb 18
- 9:30 AM Feb 18
- 8:30 AM Feb 19
- 9:30 AM Feb 19
- 8:30 AM Feb 20
- 9:30 AM Feb 20

Where are you joining in from?

Answer via Adobe Connect
OR
RSVP to access instruction email :
Julian.Ringrose@hc-sc.gc.ca

Poll question

Are you familiar with the

New Zealand : Forecasting Methodology ?

Yes?
 No?

RSVP
Via Adobe Connect Internet Conference Poll

OR

Via Email: Respond to the 'access instructions email
 Julian Ringrose (julian.ringrose@hc-sc.gc.ca)

Planning the disposition and training of healthcare workers for an uncertain future

Professor Des Gorman MD PhD

Planning for an uncertain future

- Problem definition.

- Examples of the uncertainty.

- An approach to health workforce planning that accommodates uncertainty.

- Consistent findings and highly likely trends.

Problem definition

All predictions of the future health milieu suggest a supply, demand and affordability mismatch.

NZIER (2005)
NZ Population Projections by Age Cohort
(Assuming medium population growth)
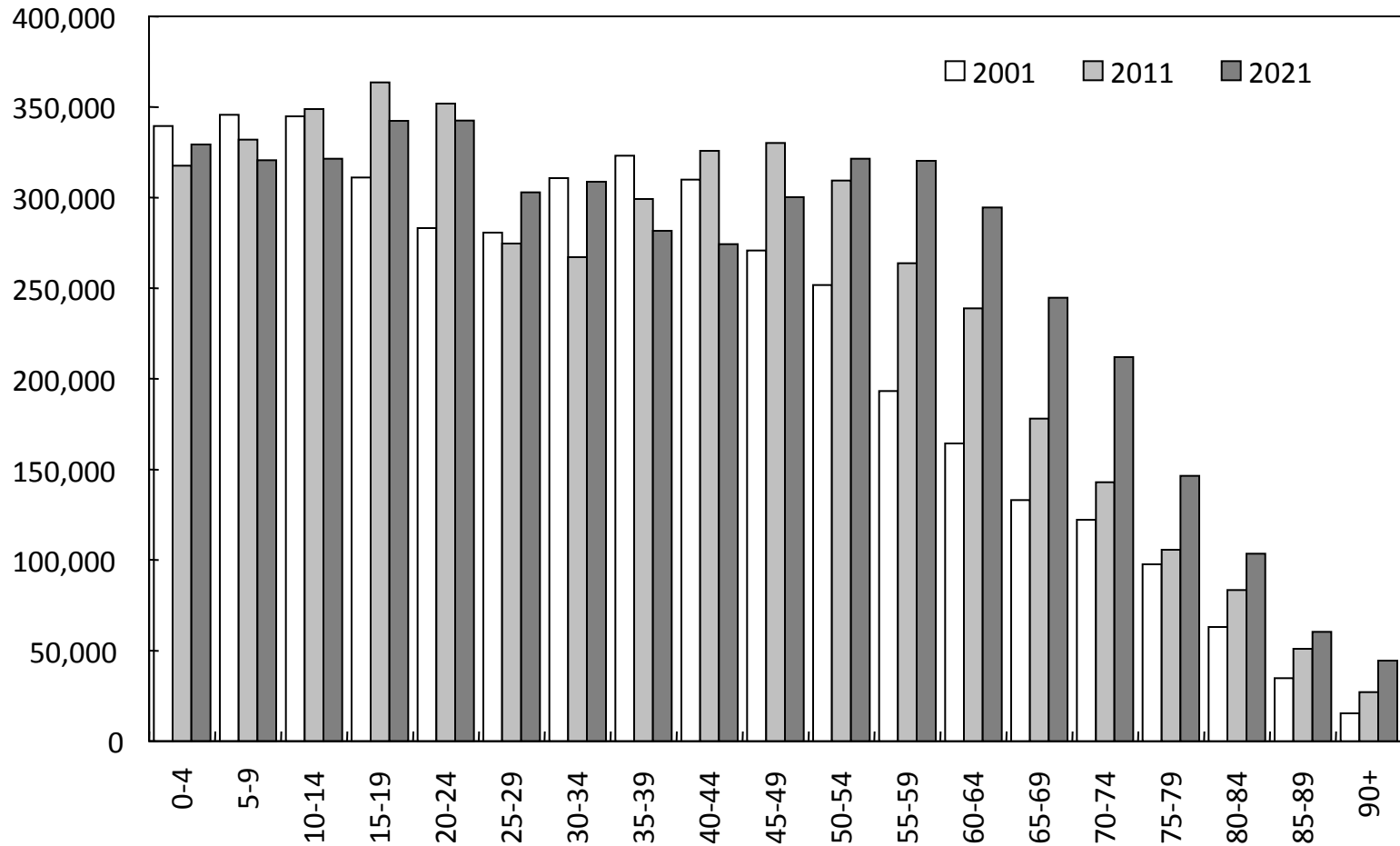
Cumulative % change

417%

133%

GDP — Health

13
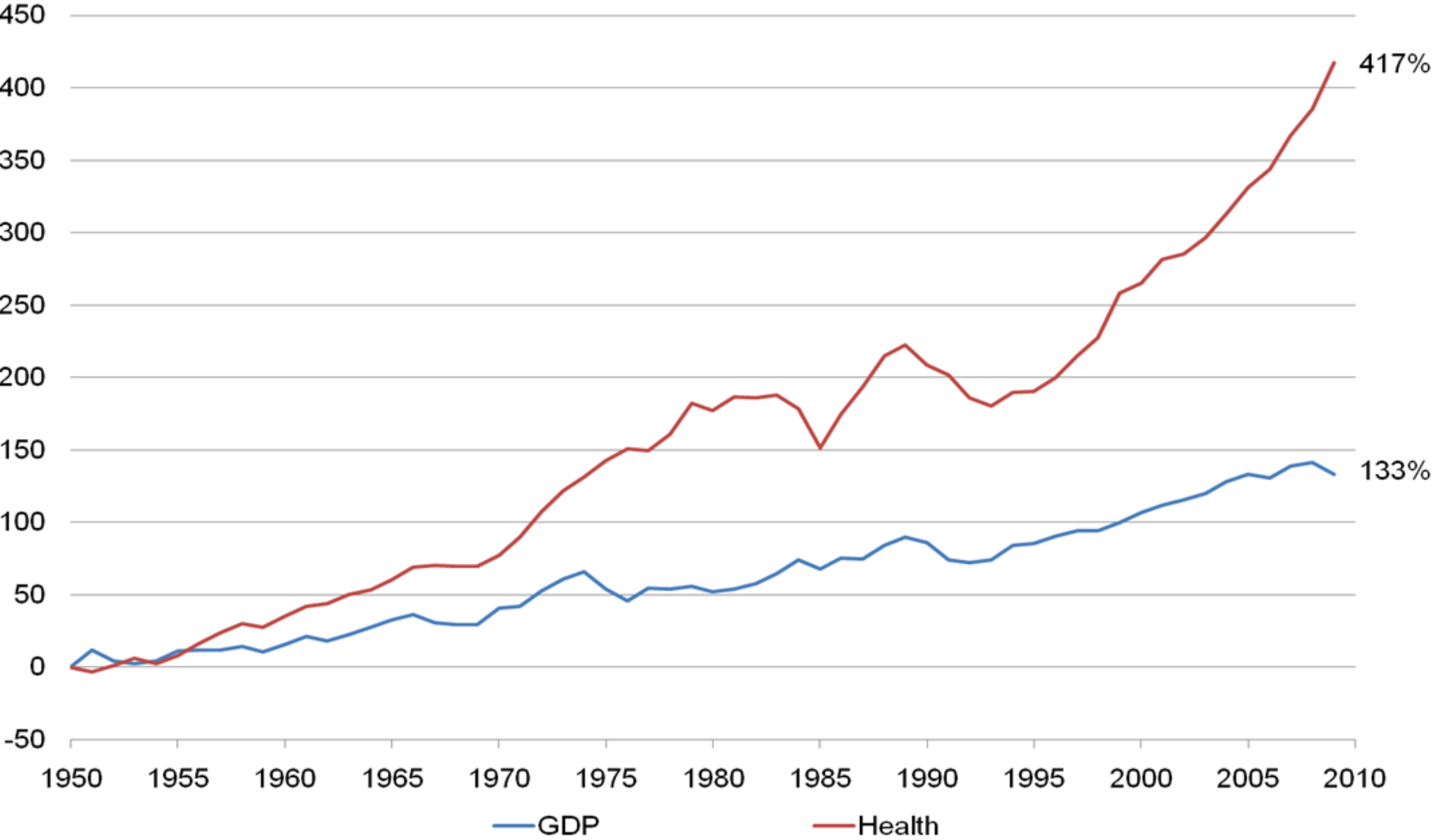
Problem definition

Health planning, and particularly health workforce planning, is notoriously difficult and traditional approaches have been found to be highly unreliable.

Planning for an uncertain future

- Problem definition.

- Examples of the uncertainty.

- An approach to health workforce planning that accommodates uncertainty.

- Consistent findings and highly likely trends.

Examples of the uncertainty

Three disrupted models of healthcare as examples of the uncertainty.

An analysis of the medical and nursing workforces in New Zealand as professional examples of the uncertainty.

Examples of the uncertainty

Three disrupted models of healthcare as examples of the uncertainty.

- The discovery of an infective cause of peptic ulceration.
- The development of laparoscopic cholecystectomy.
- The development of cancer services based on the underlying mutation as compared to the affected organ.

Examples of the uncertainty

An analysis of the medical and nursing workforces in New Zealand as professional examples of the uncertainty.

Examples of the uncertainty

In 2008, the New Zealand health system was the subject of a critical review by the WHO. This showed that New Zealand had only 70% of the OECD average number of doctors per capita and an excess reliance on immigrant doctors, in turn due to a very high emigration of doctors and in particular to Australia.

Chart 7. Expatriation rates and percentages of foreign-born doctors and nurses, selected OECD countries, circa 2000
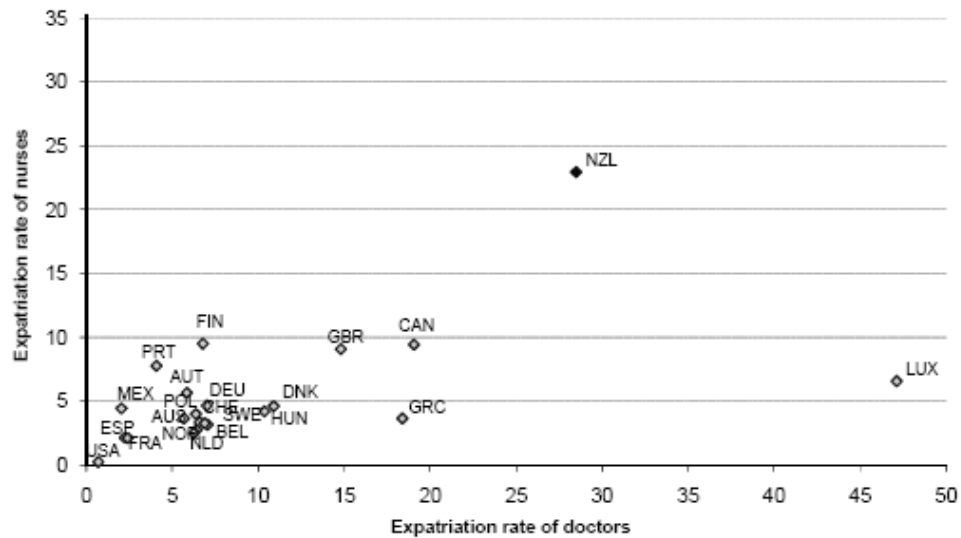
Source: Dumont and Zurn (2007)
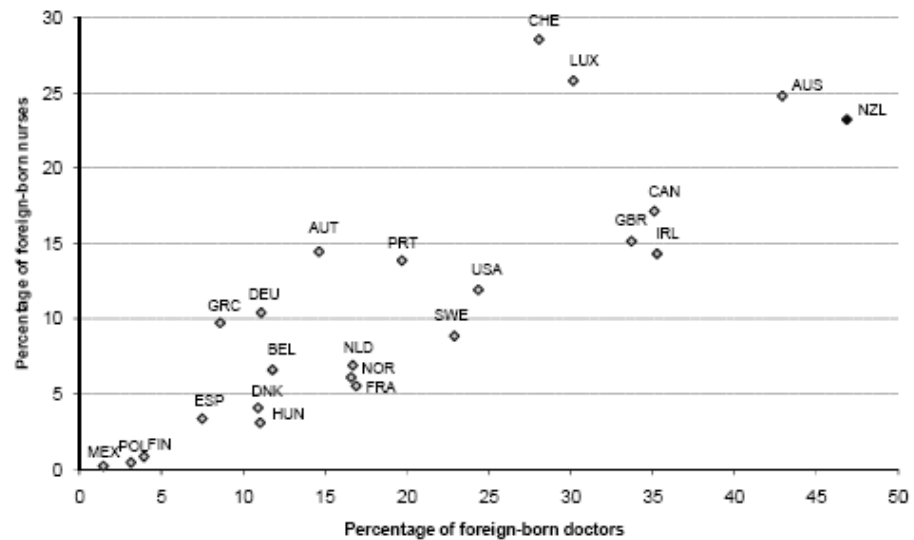
Source: Dumont and Zurn (2007)

Examples of the uncertainty

A series of strategies were introduced in 2009 and 2010 to reduce the rate of emigration of doctors from New Zealand – the hypothesis was that the annual loss of about 300 doctors permanently per annum to Australia alone would be halved by 2015. By 2012, the number leaving for anywhere in the world permanently was already less than 50.

Examples of the uncertainty

In 2013, considerable effort was required to identify internships for New Zealand domestic medical graduates.

- The retention rate of New Zealand doctors has changed over the last few years from a stable level of 75% to about 95%.
  - Many reasons exist to explain this shift, but the rate and extent was unpredictable.
- Senior doctors are now the most stable public workforce in New Zealand.

Examples of the uncertainty

As for other jurisdictions, a medical workforce that was poorly distributed against need was misinterpreted as an overall shortage – this has been exaggerated by the 2001 Primary Healthcare Strategy, which introduced a capitation and that has had an "unexpected" and perverse outcome on both the GP and ED medical workforces.

Figure 6: Average hours worked per week by work role at main work site
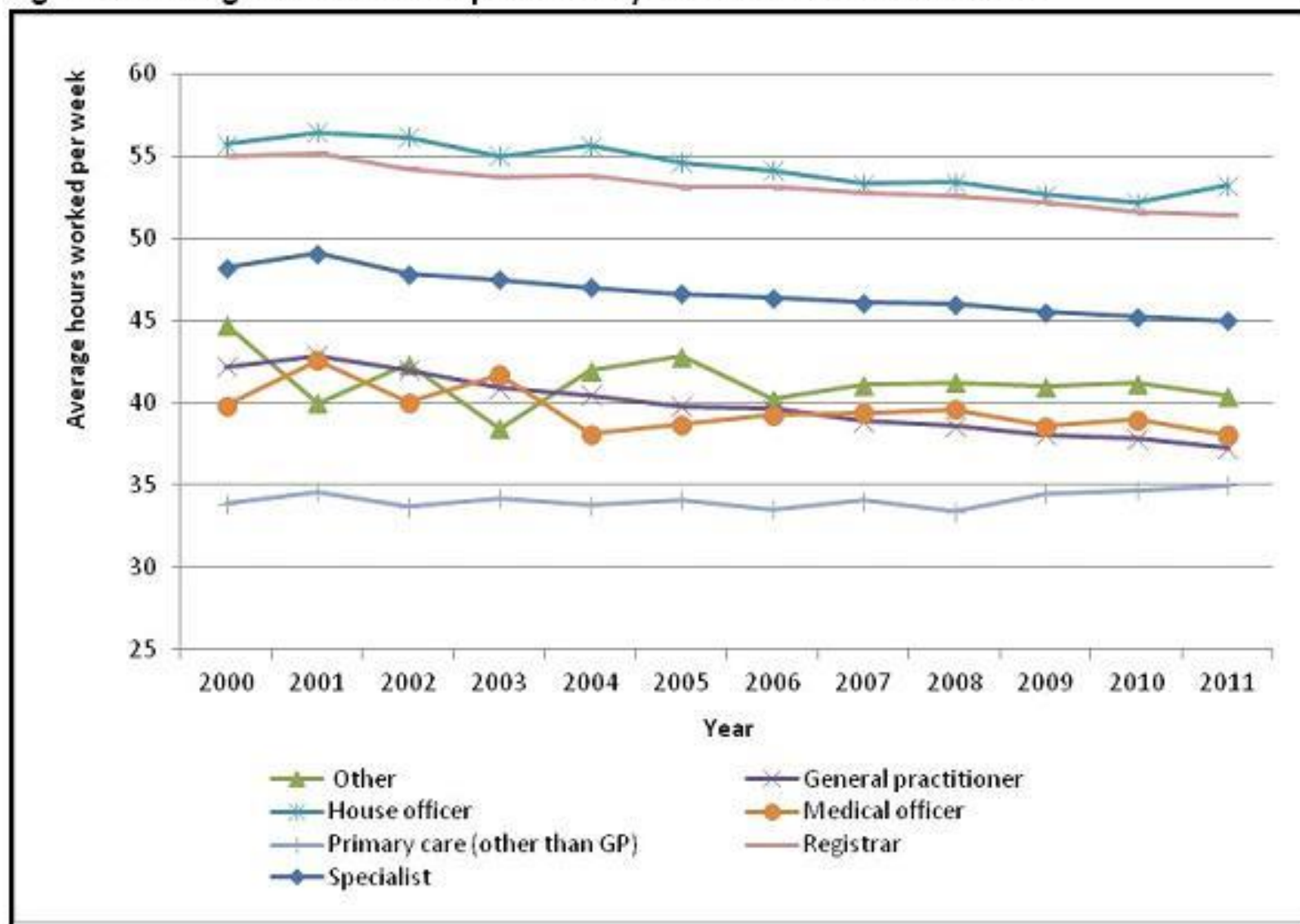
Figure 8: Average on-call[1] hours, by work role at main work site
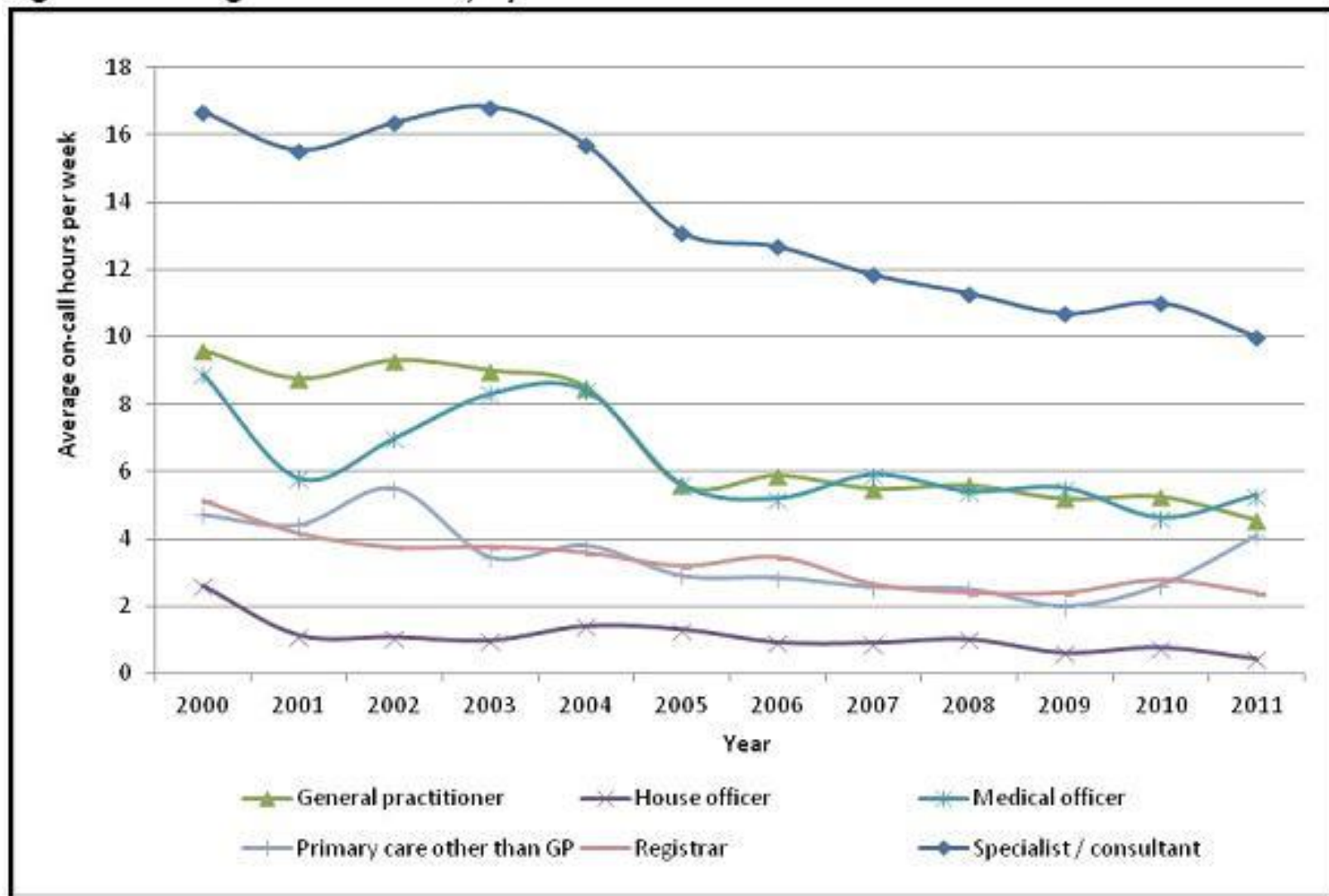
[1] On-call hours are defined as hours when the doctor was on call, but not actually working.

Relationship between GP numbers and services in the Australian fee-for-service health system

GP Numbers and GP Services 1984-85 to 2005-06
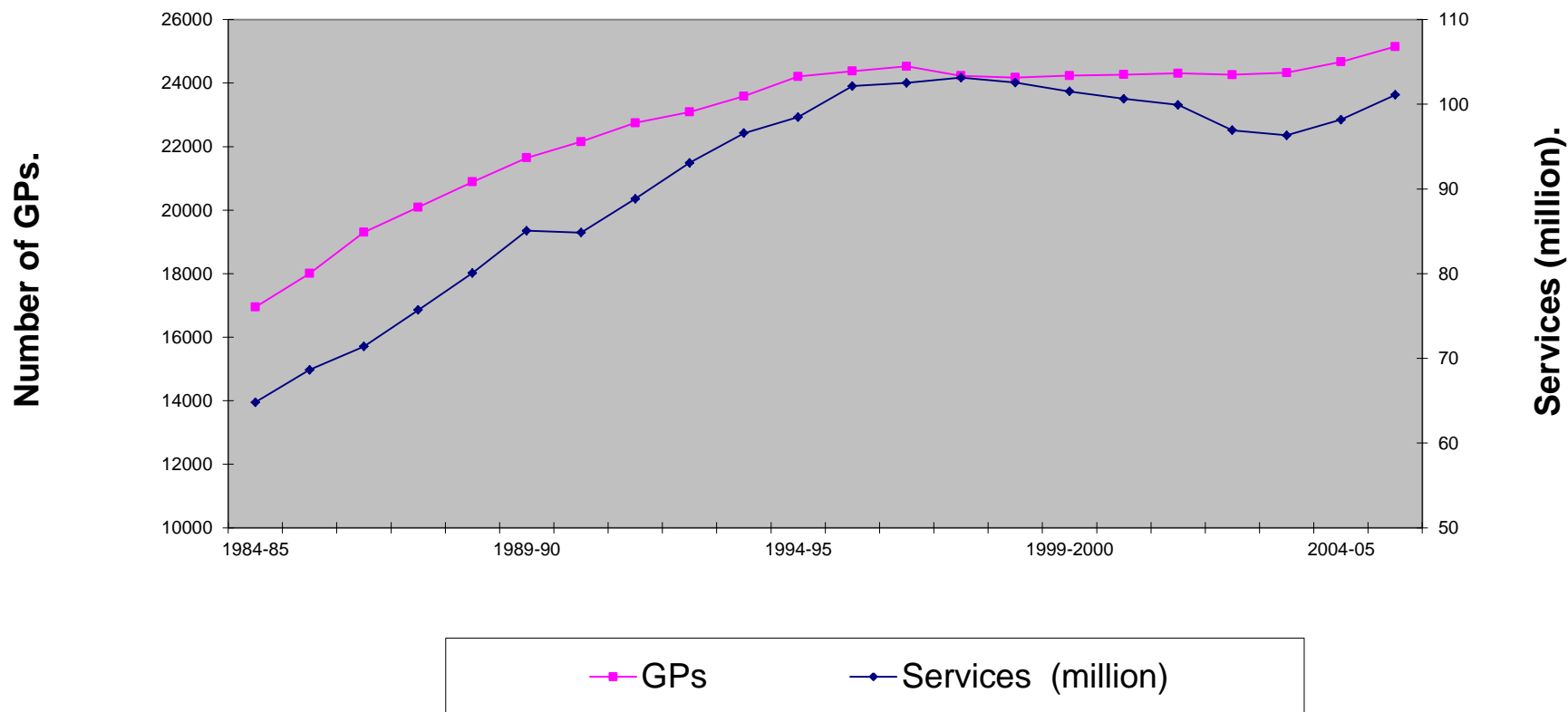
Examples of the uncertainty

Nurse participation in the workforce is closely (inversely) aligned to general labour market economic conditions, and to age (i.e., sharp drop off in effective FTE after the age of 50), and is generally independent of health need and of healthcare planning and funding.   For this reason, 'feast and famine' in the nursing workforce occur as unpredictably as do changes in general economic conditions.

Number and age of nurses in workforce in Octonber 2011
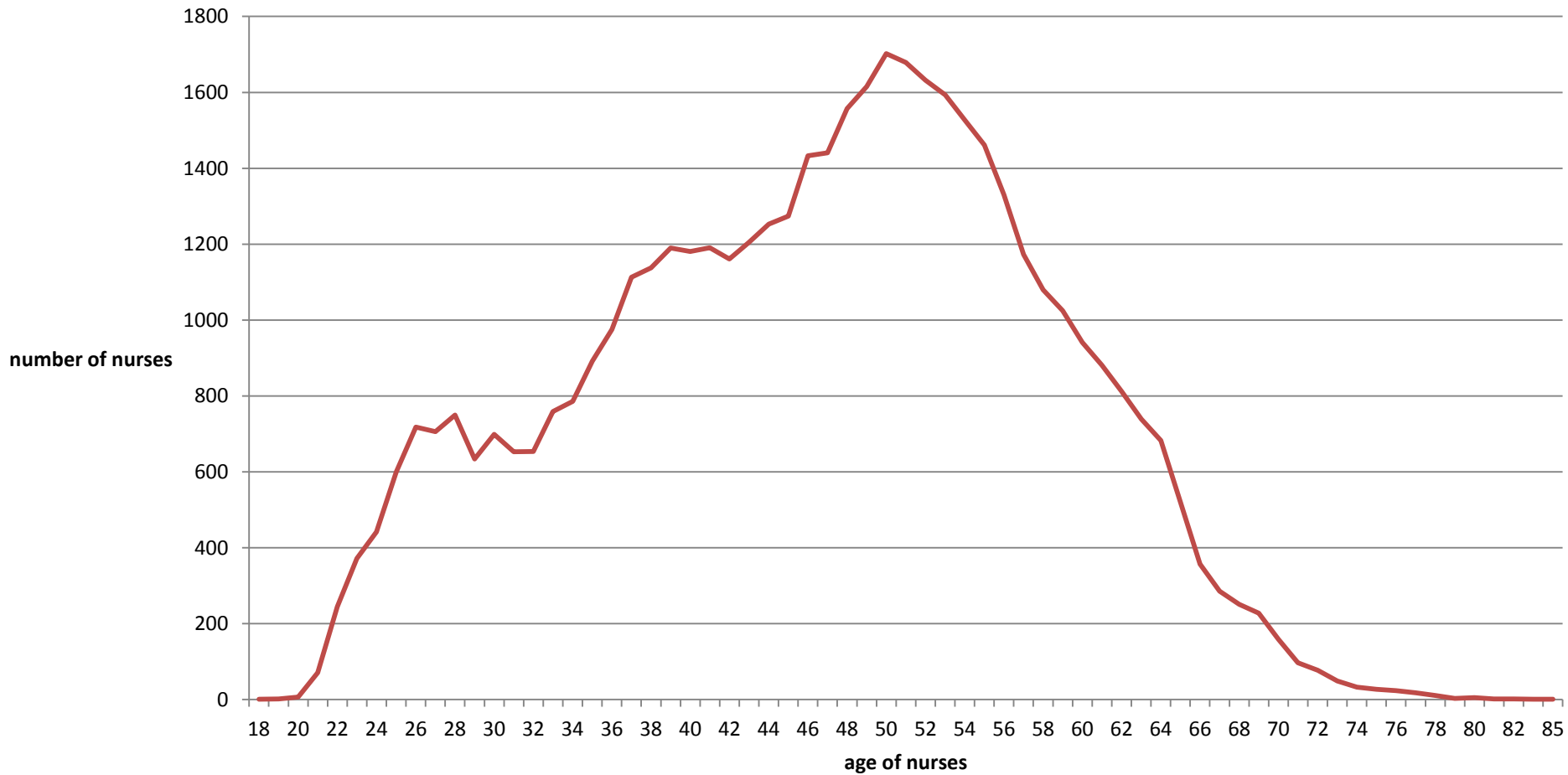
number of nurses

age of nurses

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Health workforce planning that accommodates uncertainty
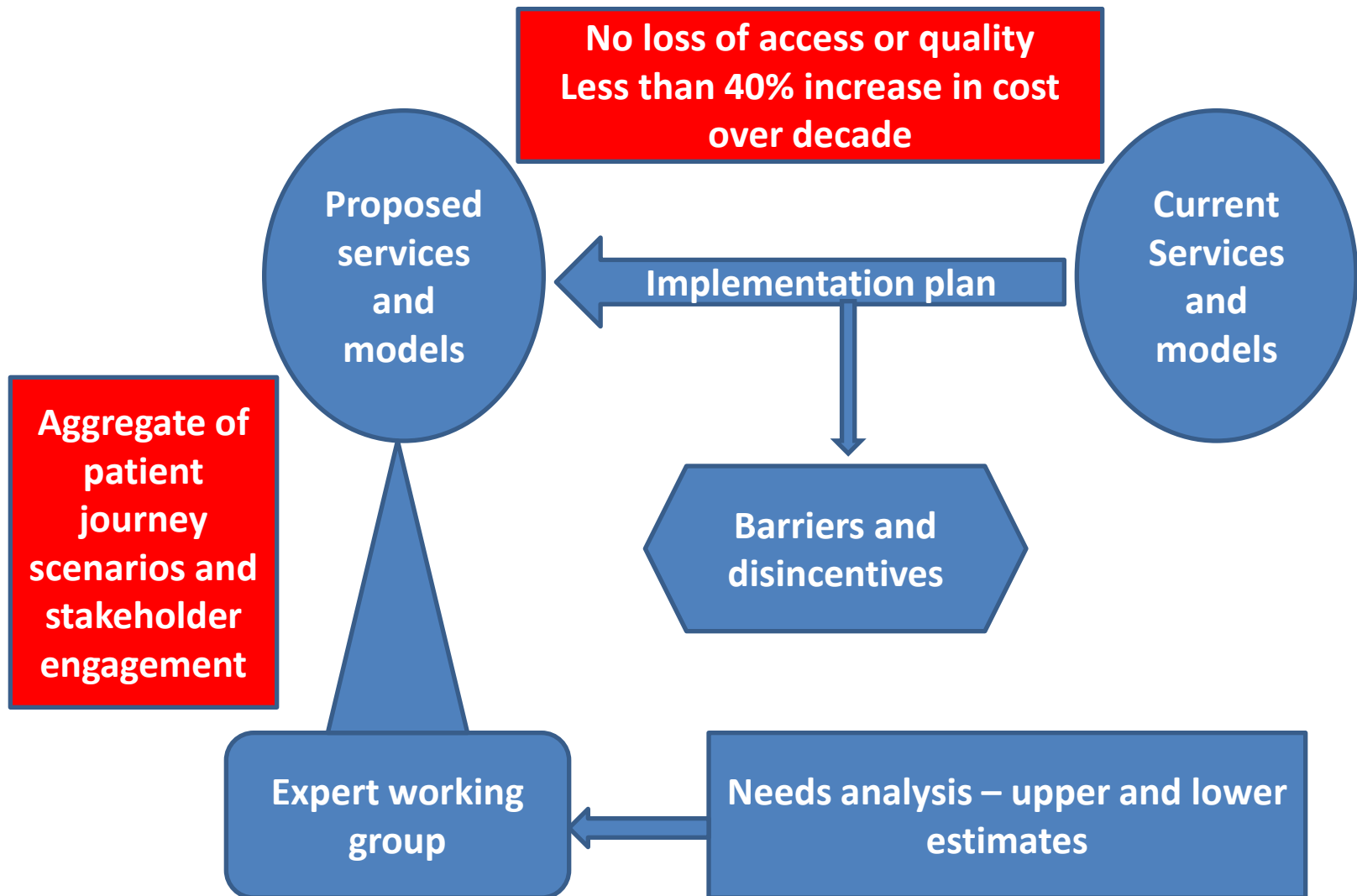
HWNZ made five fundamental decisions in this context.

(1) The IHI Triple Aim – or at least a New Zealand variant – is an appropriate template for planning.

Health workforce planning that accommodates uncertainty

HWNZ made five fundamental decisions in this context.

(2) Health workforce planning needs to be organic and integrated with capital and IT planning and subservient to agreed models of care and service configurations – in turn driven by health need.

The New Zealand Health System in 2014
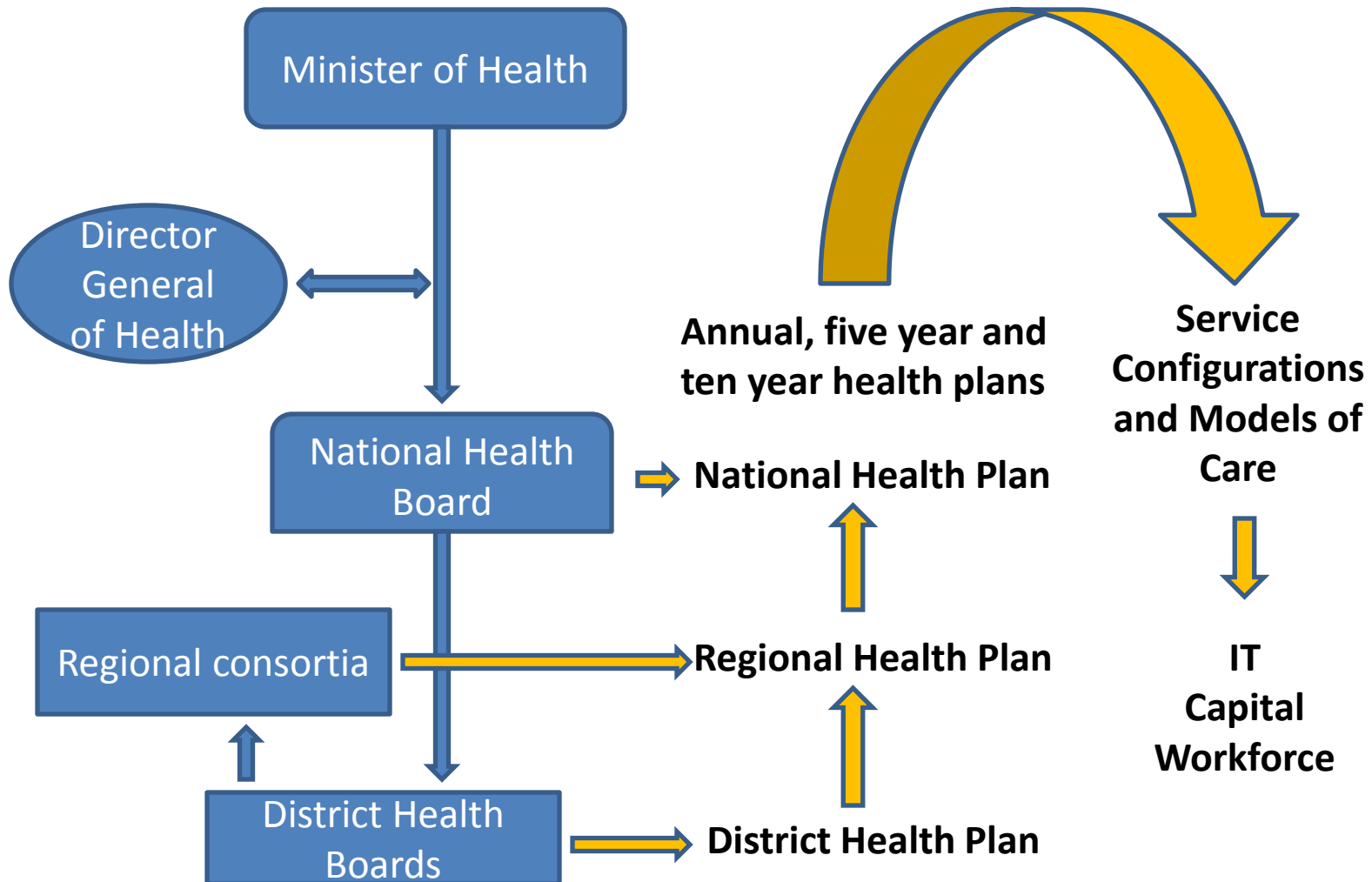
Health workforce planning that accommodates uncertainty

HWNZ made five fundamental decisions in this context.

(3) Health planning is more effective when based on service aggregates – e.g., aged care, rehabilitation, mental health, mothers and baby's health etc. – than when it is based on professional groupings.

Health workforce planning that accommodates uncertainty

HWNZ made five fundamental decisions in this context.

(4) Health workforce planning needs to be based on an inclusive set of possible future scenarios for a service aggregate, and these scenarios should be generated by an inter-professional group of clinician subject matter experts and opinion leaders.

The HWNZ Planning Process for 2020

**No loss of access or quality
Less than 40% increase in cost
over decade**

Proposed services and models

Current Services and models

Implementation plan

Aggregate of patient journey scenarios and stakeholder engagement

Barriers and disincentives

Expert working group

Needs analysis – upper and lower estimates

Health workforce planning that accommodates uncertainty

HWNZ made five fundamental decisions in this context.

(5) Advocacy for general scopes of practice for slow to train and expensive to train health workers and for flexibility in deployment for all health workers will help to future-proof the health workforce.

Health workforce planning that accommodates uncertainty

To date, 14 health service aggregate forecasts have been completed. In addition to specific outcomes for the aggregate, which includes the development of novel worker roles (e.g., diabetes registered nurse prescriber and prescribing pharmacists), cross-sectional analyses of the forecasts show some consistent findings and highly likely trends that can be incorporated into plans.

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- Consistent findings and highly likely trends.

Consistent findings and highly likely trends

(1) The future health milieu is very uncertain and in some service aggregates, possible scenarios vary widely in terms of consequent workforce, IT and capital demands; some scenarios have become redundant within a year or two of generation! This is argued to justify an organic forecasting approach to planning.

Consistent findings and highly likely trends

(2) More of the same, by way of models of care and service configurations, is not an appropriate response to future health challenges.

- HWNZ has facilitated and/or led the development of a large number of innovative models of healthcare and worker roles. The issue here is that most of these innovations remain largely fixed to the regions or facilities where they were developed.

Consistent findings and highly likely trends

(2) More of the same, by way of models of care and service configurations, is not an appropriate response to future health challenges.

- – Barriers to generalised uptake include shortfalls in clinician and health system leadership, inadequate health system intelligence, restrictive business models and (often perverse) funding systems, restrictive regulatory practice, the threat of litigation, and territorial behaviour by potentially 'disrupted' craft groups and professions.

Consistent findings and highly likely trends

(3) The shift in disease burden to predominantly chronic and non-communicable disease requires a workforce that is able to provide care in the community and in people's homes - a doctor-led and hospital based health system is consequently increasingly less useful. The same is true for a provider-centric system, and a shift to a patient-centric system is being facilitated by an electronic shared care record and advanced care planning.

Consistent findings and highly likely trends

(4) The service forecasts have identified some general trends for individual professional groups.

Consistent findings and highly likely trends

Highly likely over-supply

- Psychologists – of most but not all subtypes
- Dentists
- Pharmacists
- Opticians
- Physiotherapists

Highly likely under-supply

- Oral hygienists and dental therapists
- Ultrasonographers
- MRI technicians
- Perfusionists
- Medical physicists

Consistent findings and highly likely trends

New Zealand has and will likely continue to have enough doctors. A low vacancy medical marketplace provides an opportunity for the following:

(1) An increase in the ratio of New Zealand trained to overseas trained doctors in the broader New Zealand health system from 60/40 to 85/15;

Consistent findings and highly likely trends

New Zealand has and will likely continue to have enough doctors. A low vacancy medical marketplace provides an opportunity for the following:

(2) A change in the recognition, reward and remuneration schema for doctors from one that has a recruitment and retention bias to one that has a productivity and (outcome) quality bias; and

Consistent findings and highly likely trends

New Zealand has and will likely continue to have enough doctors. A low vacancy medical marketplace provides an opportunity for the following:

(3) A demographic, geographic and disciplinary redistribution of the medical workforce to better meet health need.

Primary care and community-based doctors	2014	2020	2025
Projected need			
Projected supply			

Secondary and tertiary-quaternary doctors	2014	2020	2025
Projected need			
Projected supply			

Consistent findings and highly likely trends

Currently, there are few, if any, vacancies for nurses in New Zealand, but this is likely to change as the current recessionary economic conditions continue to ease, as the average age of nurses exceeds 50, and as the Australian health system experiences significant nurse shortages.

Enrolled nurses and nurse assistants	2014	2020	2025
Projected need	👤👤👤👤	👤👤👤👤👤👤	👤👤👤👤👤👤👤👤
Projected supply	👤👤👤👤👤	👤👤👤👤👤	👤👤👤👤👤

Registered nurses	2014	2020	2025
Projected need	👤👤👤👤	👤👤👤👤👤👤	👤👤👤👤👤👤👤👤
Projected supply	👤👤👤👤👤	👤👤👤👤👤	👤👤👤👤👤

Nurse practitioners	2014	2020	2025
Projected need	👤👤	👤👤👤👤	👤👤👤👤👤👤
Projected supply	👤	👤👤👤👤👤	👤👤👤👤

Consistent findings and highly likely trends

Many people working in the unregulated community-based health workforce are relatively under-skilled for the services that they are required to provide. The underpinning concern of course is that up-skilling this workforce will lead to an increase in salary and other employment costs, so that many community-based services might become unaffordable and or unprofitable.

Planning for an uncertain future

- Problem definition.

- Examples of the uncertainty.

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- Consistent findings and highly likely trends.

Recording will stop now.

For more information on the topic discussed here:

https://www.dropbox.com/sh/fnsknfeqog0hu9f/AAACClVVAZjRe6mhlon1hE3oa?dl=0

Download this article from the drop box folder: Developing Health Care Workforces for Uncertain Futures

Your comments/questions please!

Joining in by:
Telephone
+ Adobe Connect Internet Conference

Use the Text Box…

Joining by Telephone
+ Backup PowerPoint Presentation?

By email:
Respond to : Julian.Ringrose@hc-sc.gc.ca
Julian is cc'd on the invitation email

Thanks for joining in!

Your feedback please…

By Tuesday, February 24, 2015 4:00 PM ET

http://fluidsurveys.com/surveys/chnet/02-19-15-hc-health/

You can access the PowerPoint Presentation and audio recording here:
https://www.dropbox.com/sh/fnsknfeqog0hu9f/AAACClVVAZjRe6mhlon1hE3oa?dl=0