Performance indicators across the ditch

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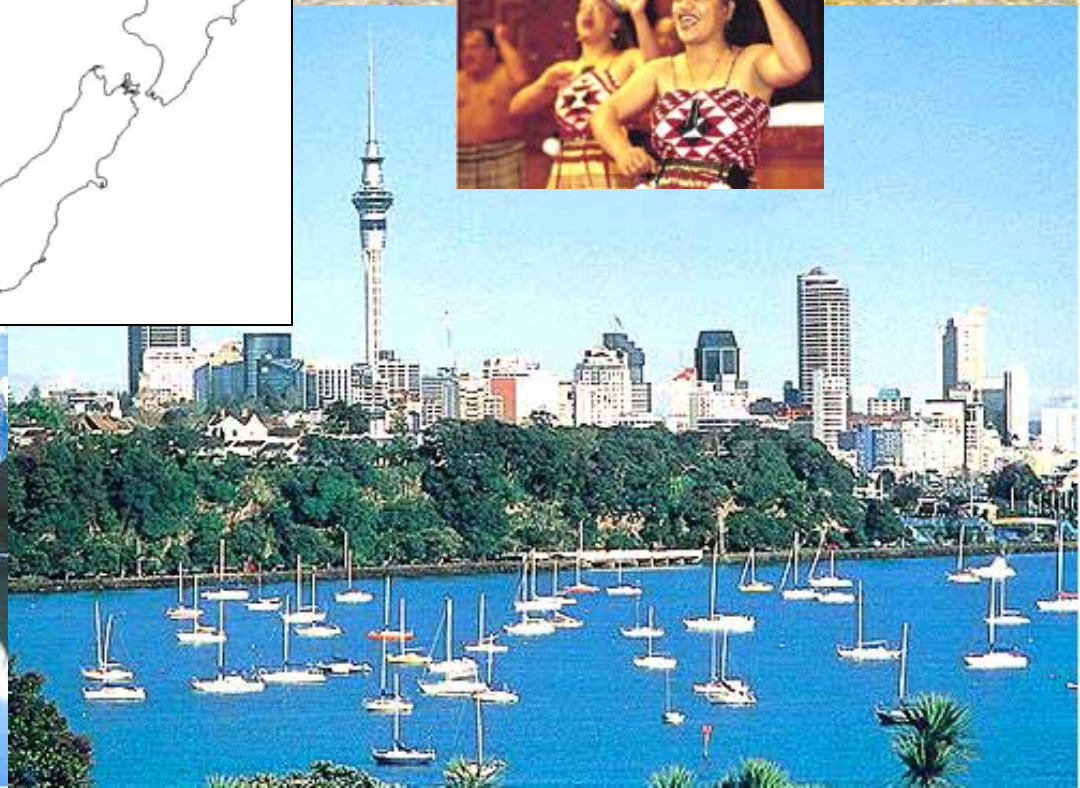
Introduction

- Three presenters three perspectives
- Joint project – Public Health & General Practice
- Productive tensions: population and clinical perspectives



Outline

- Context and the impact of structural reforms
- Policy drivers
- Conceptual approaches
- Levers – carrots and sticks
- Chronic disease indicators
- Implementation and policy challenges

Context and the impact of structural reforms

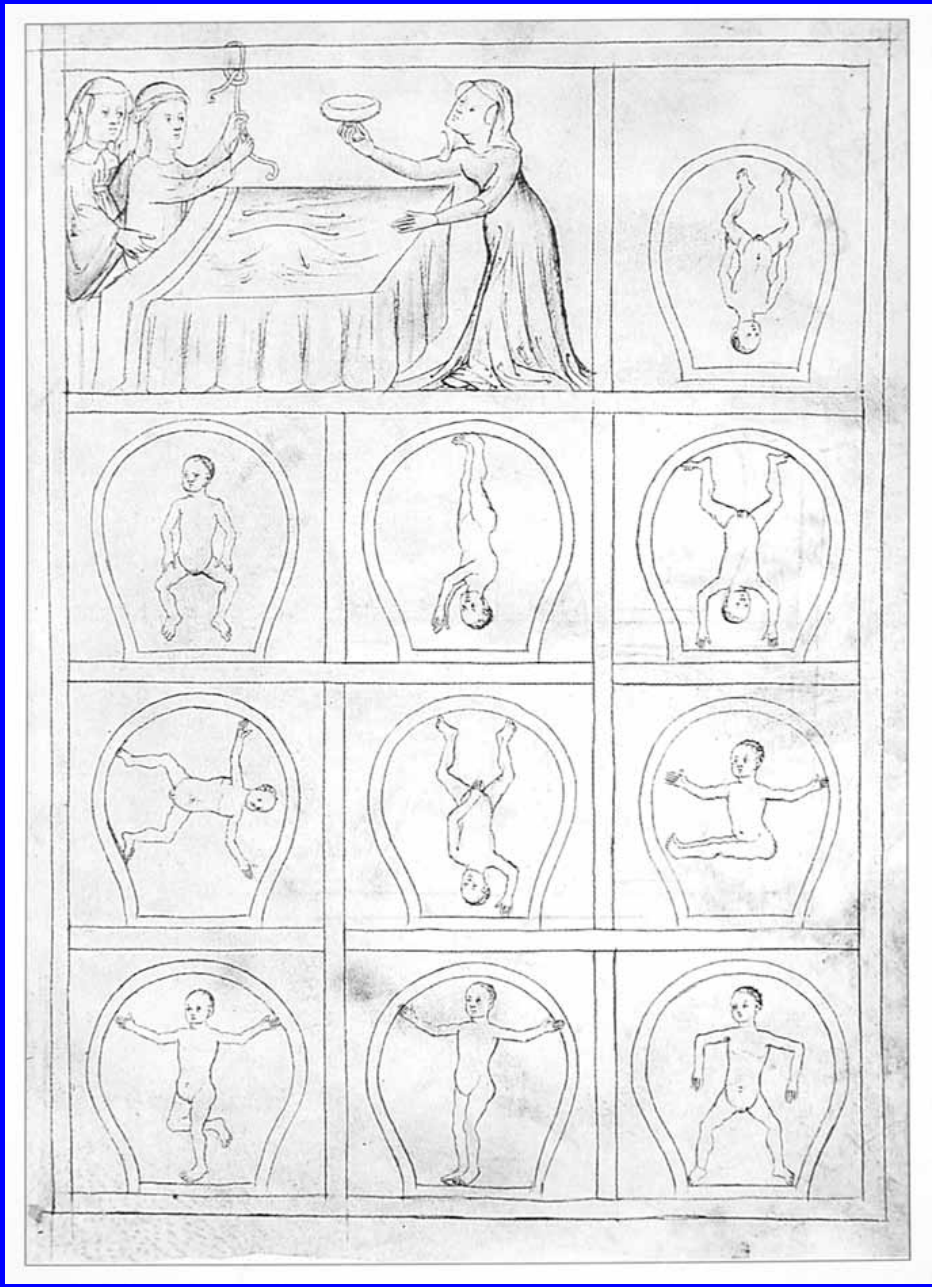
- What we include under the rubric "performance indicators"
- Building on previous work
- PHO is the unit of analysis

Historically

- No unitary concept of primary health care in NZ
- Primary medical care provided by private sector GPs working alone or in small groups, with or without nurses
- Wellchild care and other primary health care services provided by non-profit and government organisations
- Past 10 years - emergence of ‘organised primary health care’

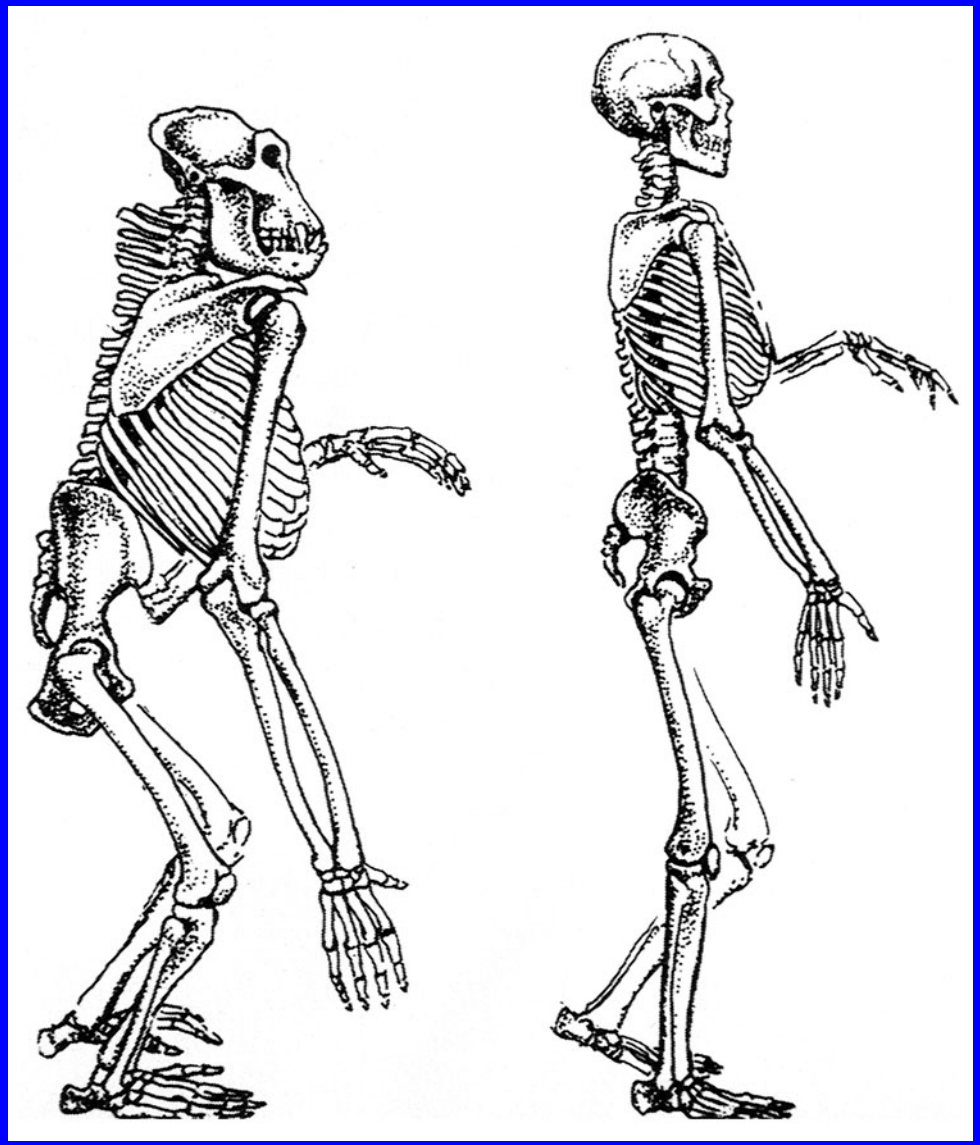
1990s...

A time of immense change… a new primary care system is born



Changes during the 1990s

- Introduction of contracting during the
- 1990s - Maori and Pacific service providers
- Infrastructure development
  - IPAs
  - HCA
  - Other networks
- Budget holding
- Primary Health Care Strategy 2001



Evolution from corner dairy general practice to organised primary health care

The Primary Health Care Strategy (2001)

- Primary health organisations (PHOs)
  - Defined populations - population approach
  - Enrolment
  - Needs-based population funding
  - Comprehensive services
  - Community involvement in governance
  - Multi-disciplinary approach to governance (ie, not just GPs)
  - Not-for-profit
  - Reduce financial barriers to access (new funding required)
- About 77 PHOs (3.7 million enrollees)

Primary Health Organisations

General practices

Maori wellchild care

Pacific Island primary care

Policy drivers

- Global and local themes
- Increasing accountability in primary care
- Increasing sophisitication of quality approaches

A policy focus on quality

- New Zealand Health Strategy
- Primary Health Care Strategy
- Leading for Outcomes
- Equity – ethnicity and socioeconomic

Conceptual approaches

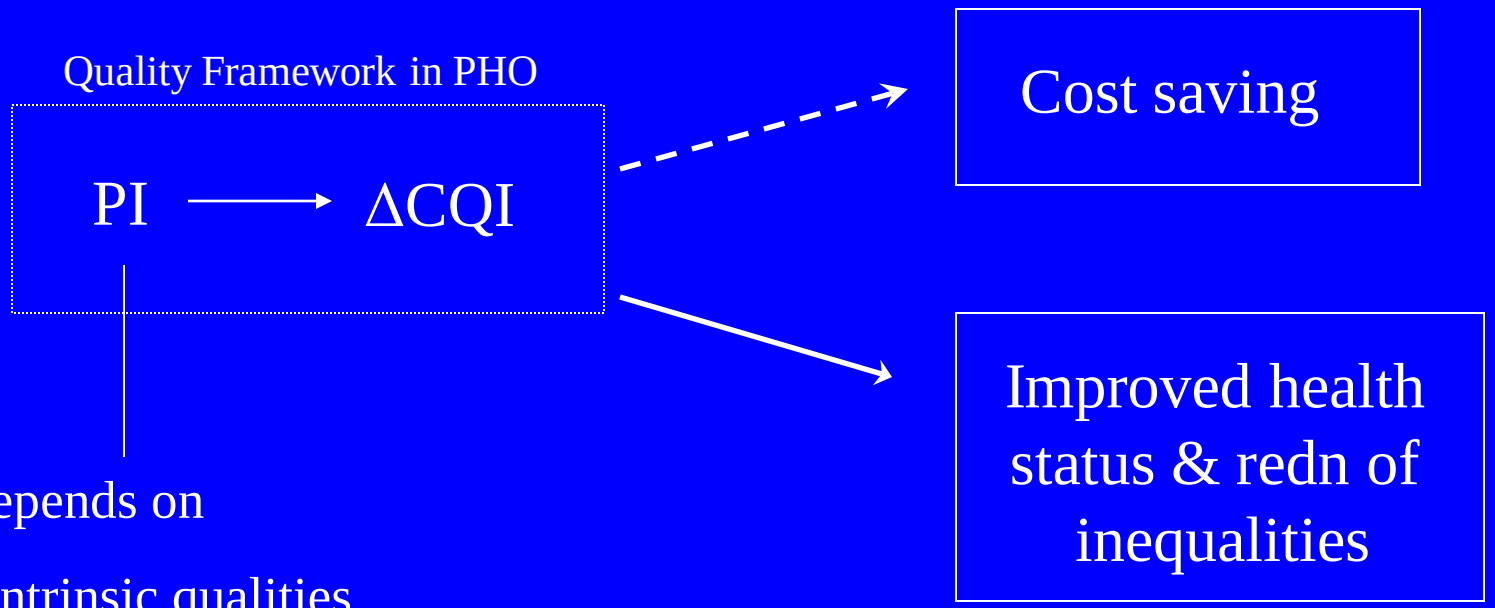
Conceptual approaches

- Performance indicators may be used for 2 potential functions (Freeman*):

- External accountability and verification
- Internal quality improvement

*Freeman T Using performance indicators to improve health care quality in the public sector: a review of the literature. Health Services Management Research. 2002;15:126-137.

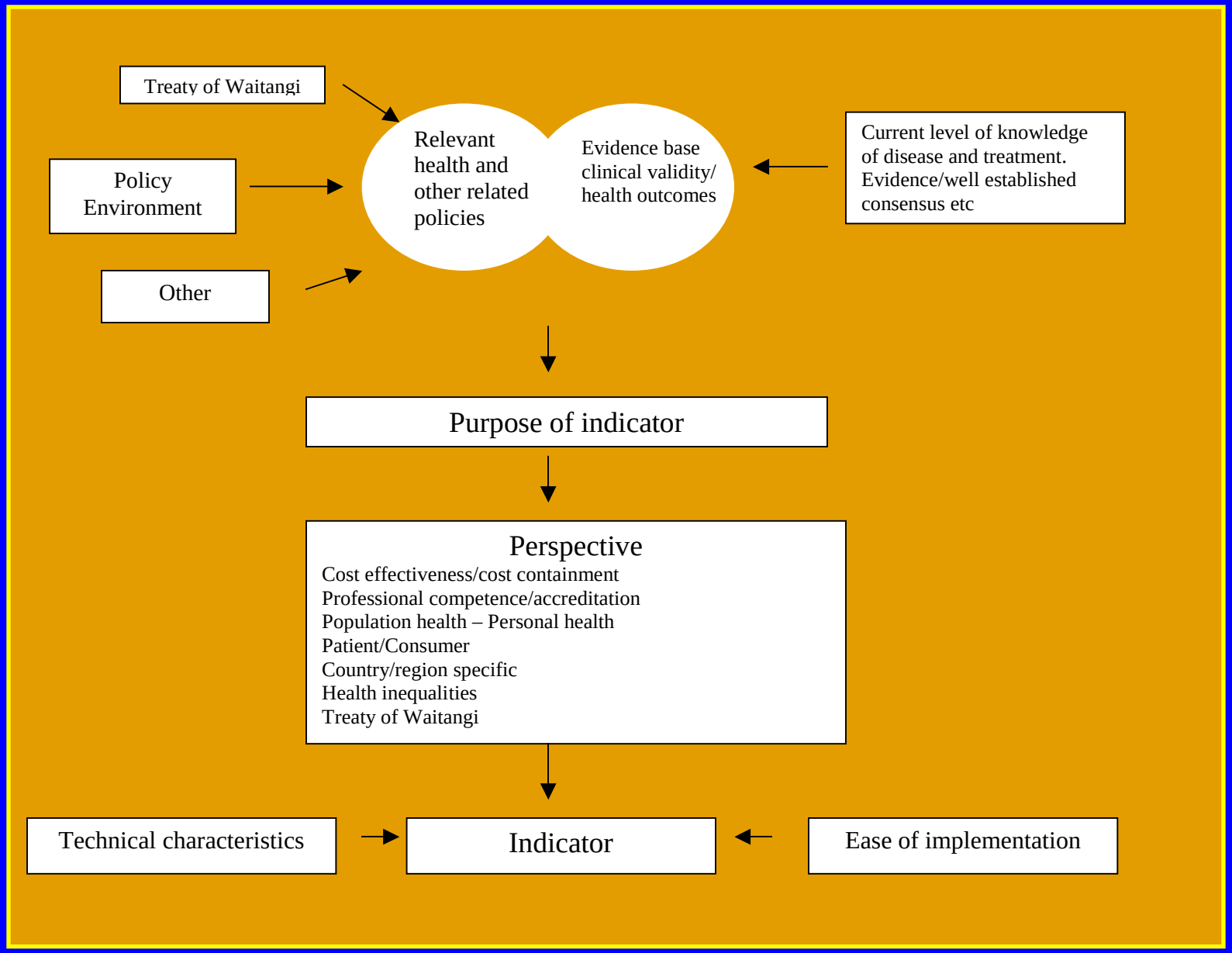
Rationale


Quality Framework in PHO
PI
ΔCQI
Cost saving
Improved health status & redn of inequalities
Depends on
- Intrinsic qualities
- Location in the process
- Data generation

Our approach

- Evidence based indicator framework that takes into account the policy, health service and clinical context within which indicators will be applied.

Framework


Treaty of Waitangi
Policy Environment
Other
Relevant health and other related policies
Evidence base clinical validity/ health outcomes
Current level of knowledge of disease and treatment. Evidence/well established consensus etc
Purpose of indicator
Perspective
Cost effectiveness/cost containment
Professional competence/accreditation
Population health – Personal health
Patient/Consumer
Country/region specific
Health inequalities
Treaty of Waitangi
Technical characteristics
Indicator
Ease of implementation

Framework

4 major themes

- **Rationale for the choice of indicator**
  - Purpose
  - Policy relevance
  - Perspective
- **Evidence base**
  - Previous use as an indicator
  - Importance re clinical validity/health outcomes
- **Technical characteristics of the indicator**
- **Ease of data collection and analysis**

The “sieve”†

† Perera R, Dowell A, Crampton P. Review of Ministry of Health proposed performance indicators for PHOs. Report prepared for the Ministry of Health. Wellington: Wellington School of Medicine and Health Sciences; 2004 May 25.

Evaluation Details

1. Definition and Purpose

This section describes the rationale for the choice of indicator.

a) Clarity of definition

b) Purpose of indicator

c) Policy Relevance

2. Evidence Base

a) Evidence Base for Organisational performance.

Table. Evidence of previous use of indicator (Indicator *x*)

There is evidence (positive or negative) for use of this indicator in :	**Yes**	**No data**
§ Performance measurement of an organisation § Audit and feedback at the level of the individual clinician § Educational programme without local audit data (e.g impact of guidelines) § Other		

Summary of findings from the literature, to date:

b) Evidence base for clinical validity / health outcomes

Table. Evidence related to clinical validity/health outcomes (Indicator *x*)

There is evidence (positive or negative) related to the clinical validity/health outcomes of this indicator from:	**Yes**	**No data**
§ Meta analyses/systematic reviews § Individual intervention studies § Individual descriptive studies § Consensus		
Available evidence relates to: § Morbidity § Mortality § Cost of care		

Summary of findings from the literature, to date:

3. Characteristics of Indicator

Table. Perspective from which the indicator is derived (Indicator)

Perspective from which the indicator is derived	Yes
Cost effectiveness/cost containment	
Professional competence/accreditation	
Population health (i.e. is meaningful in terms of population health outcomes e.g. immunisation)	
Personal health	
Patient/Consumer (e.g. waiting times)	
Of local importance (country / regional specific)	
Health inequalities	
Treaty of Waitangi (e.g. Te reo Maori)	

Technical characteristics of indicator	Yes	No	No data
The primary focus of this indicator within the health organisation relates to: Structure Process Outcome			
The indicator has been demonstrated to be a valid measure of performance			
The indicator has been demonstrated to be a reliable measure of performance			
Change in the indicator is linked to health outcomes			
Change in the indicator is attributable to primary care intervention			
The indicator lends itself to a target setting process.			
The indicator is able to detect differences between primary care organisations			
The indicator allows unambiguous interpretation of better or worse performance			
There is available risk adjustment for background demographics, access barriers.			
The indicator is able to reflect cultural values			
This indicator is best interpreted in conjunction with the collection of local experience and knowledge (e.g. presence of local anti-immunisation lobby)			
The indicator is not subject to confounding by factors outside the control of providers e.g. population characteristics, resources.			
It is a “stand-alone” indicator (i.e. it can be analysed in isolation from other indicators)			

4. Practical implications of indicator implementation

Table. Data collection (Indicator *x*)

Data Collection	Yes	No	No data
There is clarity about the unit of analysis (e.g. relates to individual clinician, aggregates of clinician, nurse, doctor, team, or organisation			
The sample/population is well defined e.g. women, men etc			
Exclusions are well defined			
Data collection specifications are well defined			
Required data elements for indicator can be obtained from existing data sources			
Required data elements for the indicator can be gathered during routine practice activities			
Existing IT software is sufficient for data collection			
Existing IT software is sufficient for data collation			

Table. Data analysis (Indicator *x*)

Data Analysis	Yes	No	No data
There is a defined measurement/scoring system for collected data.			
Precision/accuracy of data collection can be verified.			
Reports can be easily generated from the collated data for feedback			

Indicator Evaluation

Indicator:

The following is an evaluation of an indicator, regarding…… in primary care.

The indicator was supplied for evaluation by ……..

Evaluation summary

Application of the sieve

- Required collating and analysing the international and local evidence pertaining to each indicator.
  - best practice;
  - cost effectiveness; and
  - use as an indicator of good performance or quality in a primary care setting.
- Components filled in using a combination of published evidence and technical judgement.
- Summary statement for each indicator providing an indication of the main strengths and weaknesses of the indicator.

Purpose

- Sort potential indicators in a systematic manner on the basis of why the indicator was chosen and on its potential to give an accurate picture of perfomance
- Enable debate re the relative merits of individual indicators
- Understand the political and pragmatic reasons for inclusion
- Trace the likely impact of an indicator

Examples

Likely 1st phase indicators

- Children fully vaccinated by 2nd birthday
- Influenza immunisations in the elderly
- Cervical smear recorded in the past 3 years
- Breast screening
- Laboratory indicators – ordering of TSH/T4; CRP/ESR
- Prescribing indictors – inhaled corticosteroids; metformin/sulphonylureas

Likely 2nd phase indicators

- Diabetes ever recorded or annual check within the last year
- Asthma/IHD/CV risk/Mental health recorded within the past 5 years
- Diabetes patients with microalbuminuria on ACE inhibitor
- Statin prescribing for CV risk > 15% within the past year
- Adults with smoking status ever recorded by the GP

Evidence re clinical validity/health outcomes

Influenza vaccination

There is evidence (positive or negative) related to the clinical validity/health outcomes of this indicator from:	Yes	No data
§ Meta analyses/systematic reviews § Individual intervention studies § Individual descriptive studies § Consensus	ü ü ü ü	
Available evidence relates to: § Morbidity § Mortality § Cost of care	 ü ü ü	

Breast screening

There is evidence (positive or negative) related to the clinical validity/health outcomes of this indicator from:	Yes	No data
§ Meta analyses/systematic reviews § Individual intervention studies § Individual descriptive studies § Consensus	ü ü ü ü	
Available evidence relates to: § Morbidity § Mortality § Cost of care	 ü ü ü	

Evidence base for organisational performance

Influenza vaccination

There is evidence (positive or negative) for use of this indicator in :	Yes	No data
§ Performance measurement of an organisation	ü	
§ Audit and feedback at the level of the individual clinician	ü	
§ Educational programme without local audit data (e.g impact of guidelines)	ü	
§ Other		

Breast screening

There is evidence (positive or negative) for use of this indicator in :	Yes	No data
§ Performance measurement of an organisation		
§ Audit and feedback at the level of the individual clinician	ü	
§ Educational programme without local audit data (e.g impact of guidelines)	ü	
§ Other		

Technical characteristics of indicator **Influenza vaccination**	**Yes**	**No**	**No data**
The primary focus of this indicator within the health organisation relates to: Structure Process Outcome	ü		
The indicator has been demonstrated to be a valid measure of performance	ü		
The indicator has been demonstrated to be a reliable measure of performance	ü		
Change in the indicator is linked to health outcomes	ü		
Change in the indicator is attributable to primary care intervention	ü		
The indicator lends itself to a target setting process.	ü		
The indicator is able to detect differences between primary care organisations	ü		
The indicator allows unambiguous interpretation of better or worse performance	ü		
There is available risk adjustment for background demographics, access barriers.	ü		
The indicator is able to reflect cultural values		ü	
This indicator is best interpreted in conjunction with the collection of local experience and knowledge (e.g. presence of local anti-immunisation lobby)		ü	
The indicator is not subject to confounding by factors outside the control of providers e.g. population characteristics, resources.	ü		
It is a “stand-alone” indicator (i.e. it can be analysed in isolation from other indicators)	ü		

Technical characteristics of indicator Breast screening	Yes	No	No data
The primary focus of this indicator within the health organisation relates to: Structure Process Outcome	ü		
The indicator has been demonstrated to be a valid measure of performance			ü
The indicator has been demonstrated to be a reliable measure of performance			ü
Change in the indicator is linked to health outcomes	ü		
Change in the indicator is attributable to primary care intervention		ü	
The indicator lends itself to a target setting process.	ü		
The indicator is able to detect differences between primary care organisations		ü	
The indicator allows unambiguous interpretation of better or worse performance	ü		
There is available risk adjustment for background demographics, access barriers.	ü		
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This indicator is best interpreted in conjunction with the collection of local experience and knowledge (e.g. presence of local anti-immunisation lobby)	ü		
The indicator is not subject to confounding by factors outside the control of providers e.g. population characteristics, resources.		ü	
It is a “stand-alone” indicator (i.e. it can be analysed in isolation from other indicators)	ü		

Data Collection (Influenza vaccination)	Yes	No	No data
There is clarity about the unit of analysis (e.g. relates to individual clinician, aggregates of clinician, nurse, doctor, team, or organisation	ü		
The sample/population is well defined e.g. women, men etc	ü		
Exclusions are well defined	ü		
Data collection specifications are well defined	ü		
Required data elements for indicator can be obtained from existing data sources	ü		
Required data elements for the indicator can be gathered during routine practice activities	ü		
Existing IT software is sufficient for data collection	ü		
Existing IT software is sufficient for data collation	ü		
Data Analysis (Influenza vaccination)	**Yes**	**No**	**No data**
There is a defined measurement/scoring system for collected data.	ü		
Precision/accuracy of data collection can be verified.	ü		
Reports can be easily generated from the collated data for feedback	ü		

Data Collection (Breast screening)	Yes	No	No data
There is clarity about the unit of analysis (e.g. relates to individual clinician, aggregates of clinician, nurse, doctor, team, or organisation		ü	
The sample/population is well defined e.g. women, men etc	ü		
Exclusions are well defined		ü	
Data collection specifications are well defined	ü		
Required data elements for indicator can be obtained from existing data sources	ü		
Required data elements for the indicator can be gathered during routine practice activities		ü	
Existing IT software is sufficient for data collection		ü	
Existing IT software is sufficient for data collation		ü	

Data Analysis (Breast screening)	Yes	No	No data
There is a defined measurement/scoring system for collected data.	ü		
Precision/accuracy of data collection can be verified.		ü	
Reports can be easily generated from the collated data for feedback	ü		

Indicator: Influenza vaccinations in the elderly

Evaluation summary

This indicator has both personal and population health relevance, and is tightly linked to the activities of both individual clinicians and PHOs. The morbidity burden associated with influenza is significant.

This is one of the few indicators to have evidence of use as a measure of organisational performance. However, the overseas literature indicates that complete population coverage is unlikely even with ideal organisational performance, and targets would need to take that into consideration.

Indicator: Breast screening

Evaluation summary

This indicator has both personal and population health relevance, but is poorly linked to the activities of PHOs.

There is a national scheme (Breast Screen Aotearoa) that is currently not well integrated with PHOs.

It would be hard to assess the performance of individual clinicians, providers or PHOs on the basis of this indicator.

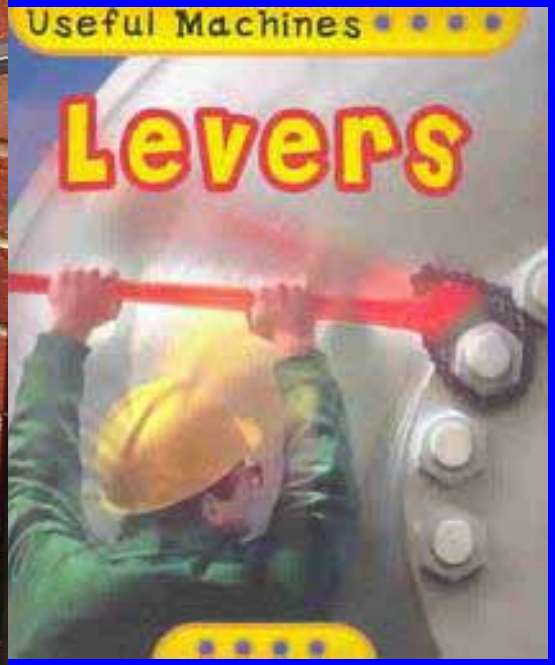
Summary

- Judgements are required in applying most aspects of the sieve
- Most of the individual criteria can be debated for any given indicator
- While there is a clinical rationale for most indicators, the evidence base is limited re
  - use in an organisational or cqi context,
  - a population health rationale for some.
- Difficulty in finding performance indicators that accurately reflect performance within a primary care organisation

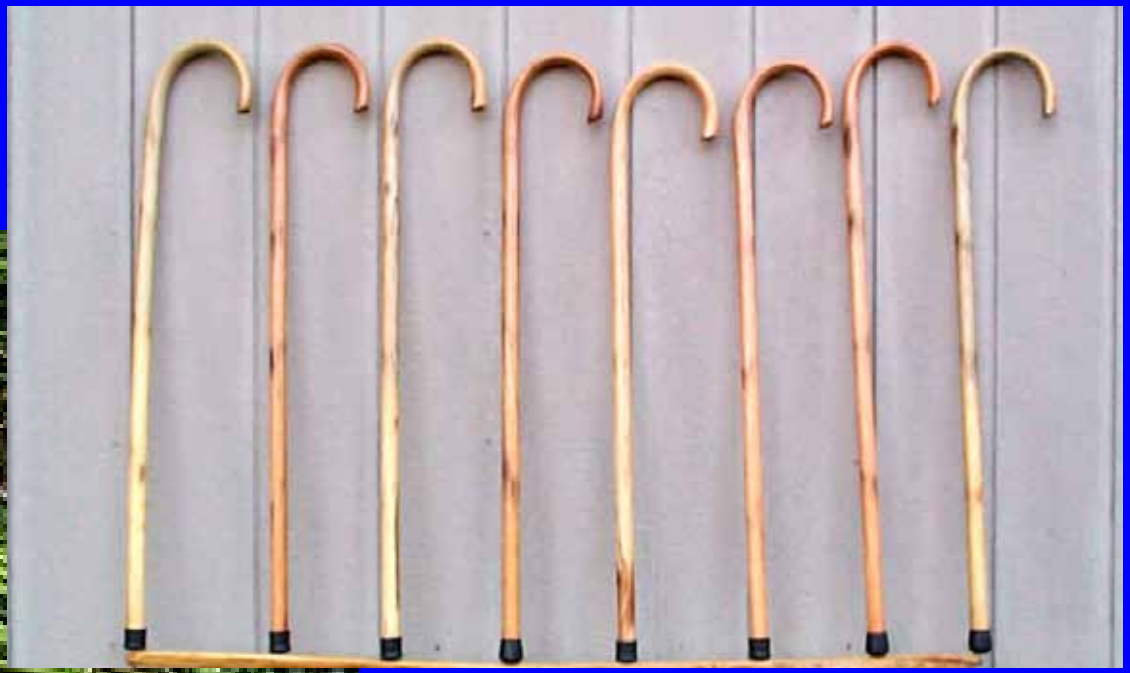
- The choice of indicators and the manner of their implementation is vitally important if the introduction of performance indicators is to maintain a focus on a quality improvement objective

Levers

Levers: What can be used to influence change?



Carrots or sticks?



- Must, must, must be clear about which approach is being used.
- And must communicate this to Primary Care

Targets and incentives

Targets

Question

- **What is the purpose of setting targets and incentives ?**

Purpose ?

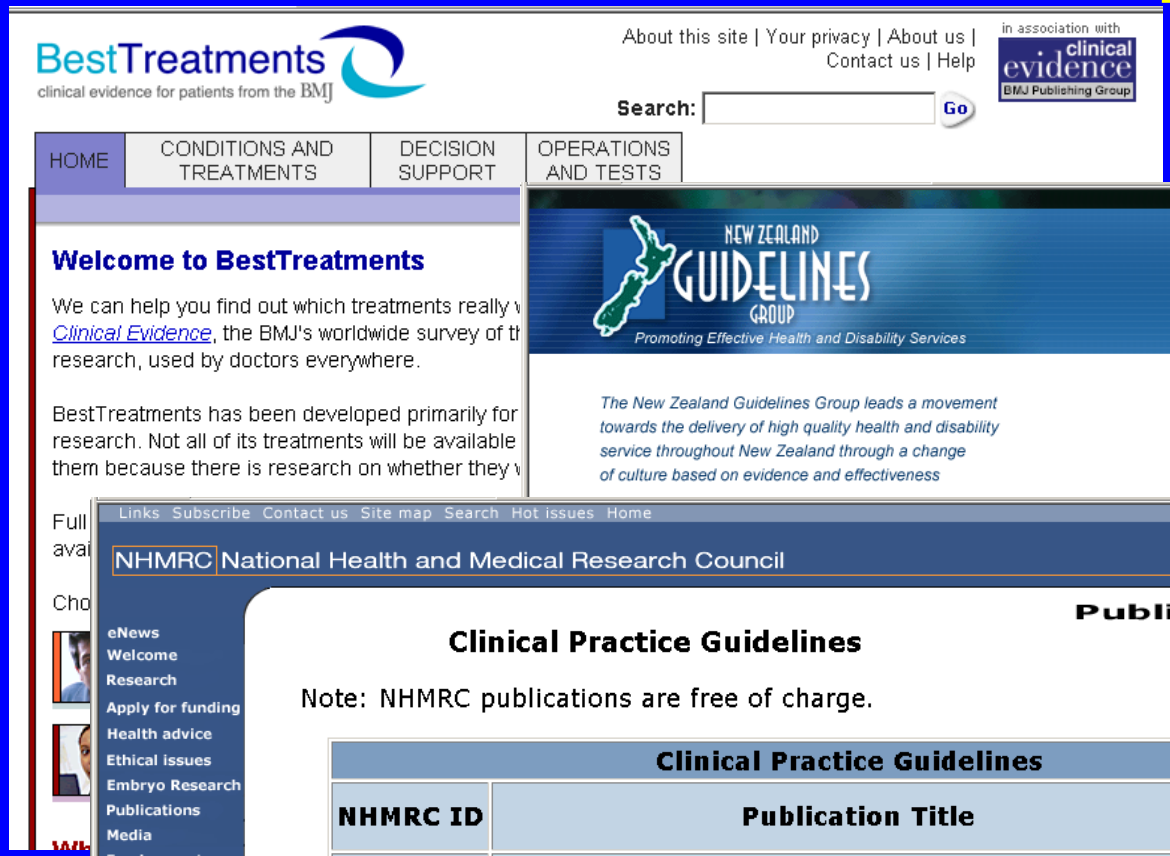
- Part of CQI spiral ?
- Positive financial incentive ?
- Monitoring ?
- Reward as of right (component of core budget)
- Improve performance ?
- Health gain ?
- To save money ?

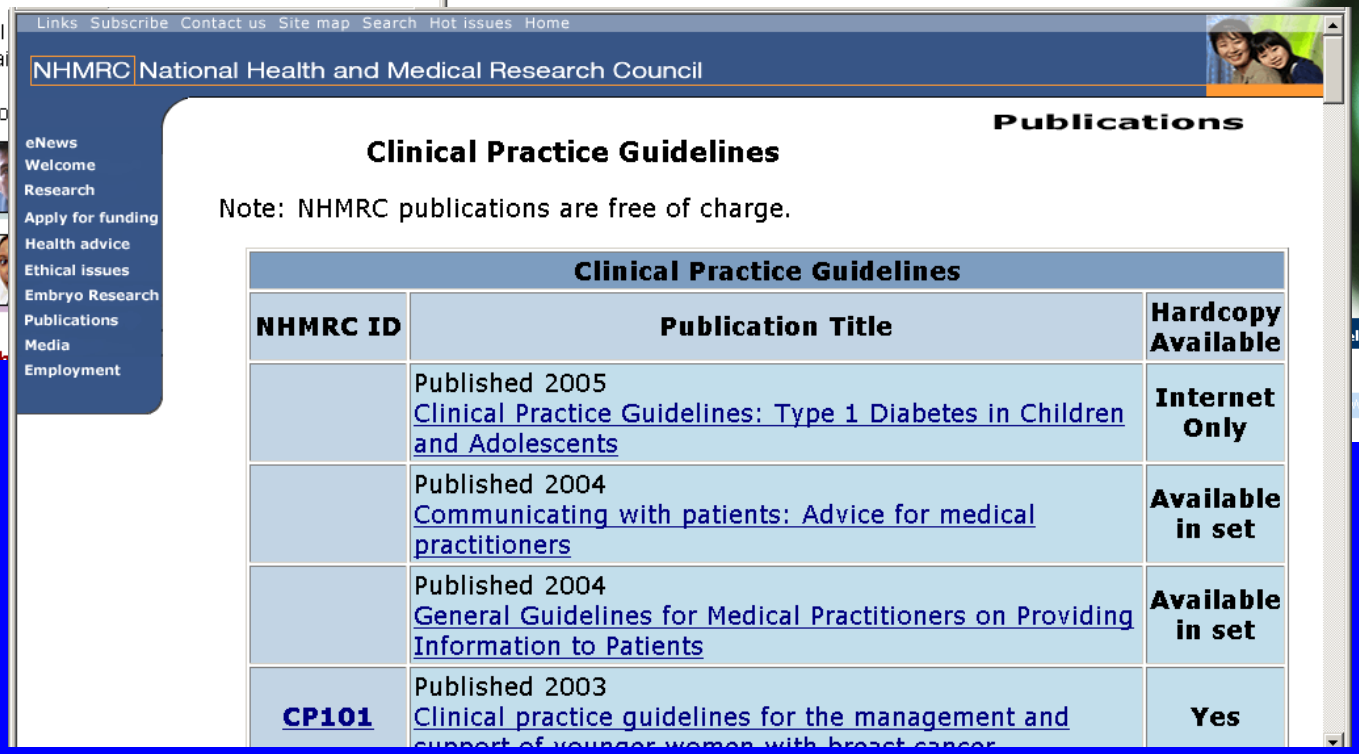
Models

Questions to consider:

- Absolute target/relative target
- Prescriptive or flexible
- Measurement of movement towards target/rate of change
- Outliers
- Small numbers and confidence intervals
- Comparisons , League tables and Publicity ?

International best practice



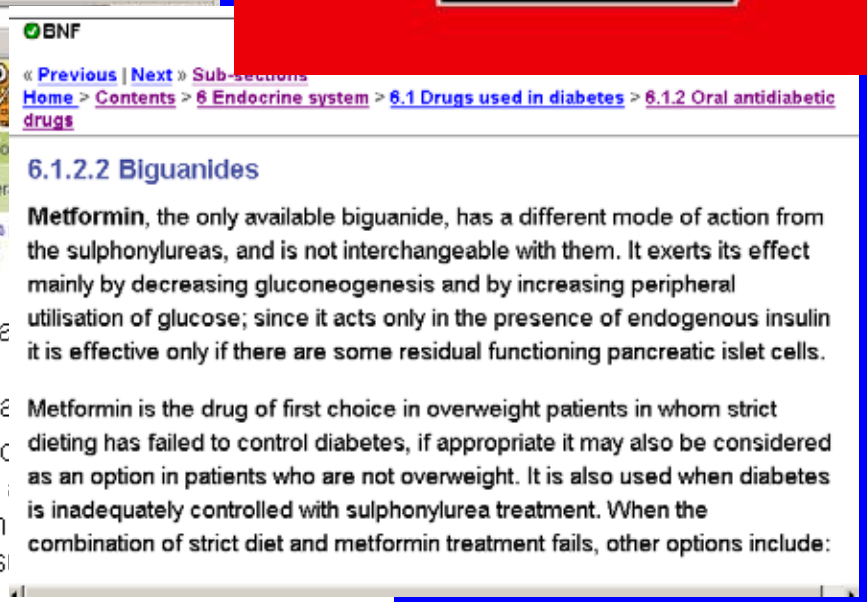


International best practice

- Evidence-based medicine/ EB nursing/ EB policy
- Internationalisation of guidelines/advice
- Professional mobility
- The Internet
- **Google**
- **Google**
- Electronic journals / professional web sites
- Patient pressure and access to information

A diabetes indicator

BNF 49 March 2005



Step 1 Metformin- may be used as a first line treatment for a
with serious renal impairment. Metformin *should* be used as
patients who are overweight as in this group it reduces all dia
beyond that which can be explained by glycaemic control alo
achieved on the maximum dose of metformin tolerated, then
should be added rather than substituted. For those for whom
contraindicated or who are not overweight a sulphonylurea s
glibenclamide is an alternative first line agent.

Step 2 If glucose control is inadequate with metformin alone, an insulin secretagogue such as glibenclamide should be added to the regime. Patients with more erratic lifestyles may benefit from the addition of a rapid-acting secretagogue such as nateglinide or repaglinide.-Patients taking any form of secretagogue medication should be warned of the possibility of hypoglycaemic episodes.

Chronic disease indicators:
Phase 1 - NZ

- Metformin / Sulphonylurea ratio

•Beclomethasone equivalent average daily dose

Chronic disease indicators: Phase 2: clinical data

Much longer process

- Debate about indicator definition
- Information has not been collected ? OR
- Collected in variable form
- No national standards
- Mixture of disease codes being used.

Proposed Phase 2 Clinical Indicators

Indicator type	Indicator Name	Measure
	Smoking status recorded	% enrolled persons >14 with smoking status ever recorded
	Diabetes recorded	# adults where diabetes ever recorded vs expected diabetes prevalence
	Asthma recorded	# adults where asthma recorded in past 5 years vs expected prevalence
	Ischaemic heart disease recorded	# adults where IHD ever recorded vs expected prevalence
	Mental health diagnosis recorded	# adults where anxiety, depression or substance abuse has been recorded in past 5 years vs expected prevalence
	Cardiovascular risk recorded	% men age 45 and older* and women 55 and older* where CVD risk has been recorded in the past 5 years * 10 years younger for Maori, Pacific and Indian, as per guidelines
	Diabetes patients with microalbuminuria on ACE inhibitor	# persons on Diabetes Get Checked who have had a micoalbuminuria test and are on ACE inhibitors or A2 agonists as at last annual check over # persons who have had a Diabetes Get Checked annual screen whose albumen:creatine ratio is <2.5 for men or < 3.5 for women or had a negative microalbumin stick test
	Statins prescribed for person with CVD risk	% persons where CVD risk >= 15 where statins have been prescribed in the past year
	Investigation of urinary tract investigations using culture and colony count	
	Use of serum tests for iron deficiency/iron stores	

Implementation and policy challenges

- **Concept (Thinking stuff up)**

Implementation: when the rubber hits the road

The Kiss principle

Keep **I**t **S**imple **S**tupid

Levers - New Zealand approach

- **Continuous quality improvement**
  "our overall approach has to be positive, and based on CQI. "
  MOH spokesperson 2001, 2000,2003

- **With just a dash of quality assurance**
  "we need to squeeze the monitoring envelope a little bit."
  MOH spokesperson 2005
- Overall verdict – About right

International best practice

- Indicator development is guided by international practice.
- Internet monitoring of rapid changes in practice (e.g. Cox 2)
- Indicators supported by specified local sites (e.g. BPAC, Medsafe)

International Developments

- **UK - Final Performance Indicators for Primary Care Trusts (2003) CHI**

The Five Bands

The bands labelled "A" or "B" indicate that the improvement in performance is statistically significant, with the probability of this level of improvement arising by chance being less then 5% for Band B and less than 1% for Band A. Similarly, Bands D and E indicate levels of statistically significant deterioration, with the probability of this level of deterioration arising by chance being less then 5% for Band D and less than 1% for Band E. For Band C, although there may be some improvement or deterioration, the role of chance cannot reasonably be excluded and no firm conclusions about the performance can be made.

Targets and incentives

- How big an incentive?
- Significant proportion of expected income
- Token payment
- UK –30% of income
- NZ – $6 per patient
- Other incentives

Quality programmes

Educational development

Chronic disease indicator issues E.g Mental Health -

- Appropriate context
- Appropriate measure

Admission Mortality/

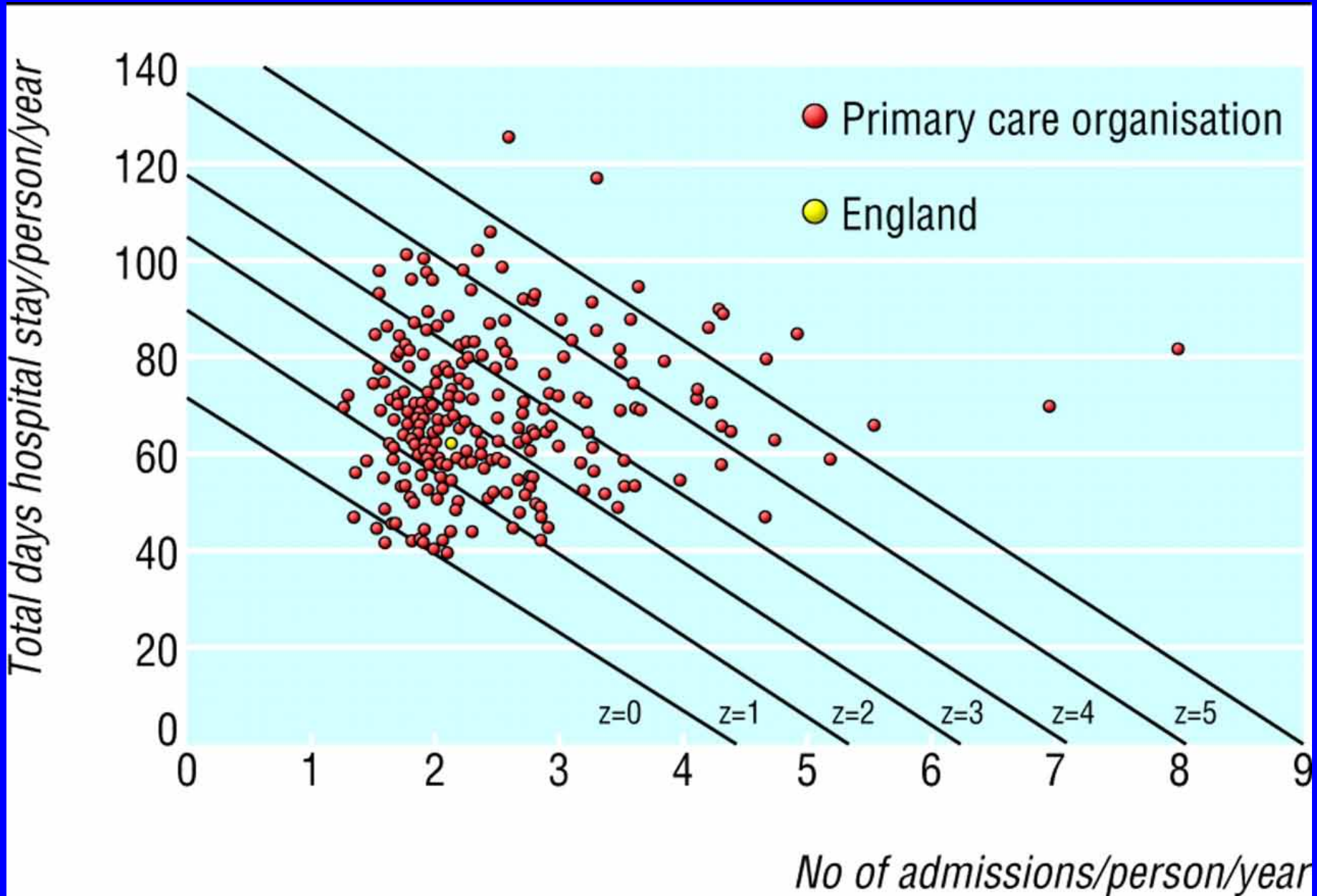
Suicide – rare event

- Technical coding issues

Lack of diagnostic precision

Variation in ‘coding’

Mental Health - How not to do it ?



Working in Harmony

Australian Divisions of General Practice

GREATER WELLINGTON HEALTH TRUST

WIPA

NGATI POROU HAUORA

Responsive organisations

MINISTRY OF HEALTH
MANATŪ HAUORA

Theory / Practice aligned

- Theoretical model makes sense ?
- Communicated to primary care ?
- Compliance costs reasonable ?
- Indicator priorities reasonable ?
- Evolutionary approach and feedback?

Issues for discussion

- Does it matter?
- What are we trying to achieve?
- ‘Good’ vs ‘bad’ indicators
- Organisational vs aggregate clinical indicators
- Implementation: top down vs bottom up
- Carrots vs sticks


If you have been
Thank you for listening