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Health outcomes: an overview

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Health outcomes: an overview

Abstract

Powerpoint presentation presented at Menzies School of Health Research, Darwin

Keywords

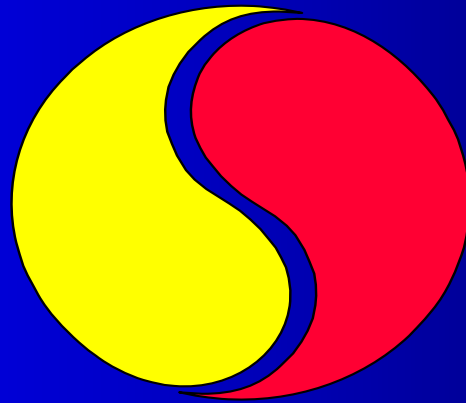
overview, outcomes, health

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Health Outcomes: An Overview

Session 1



Jan Sansoni
Director

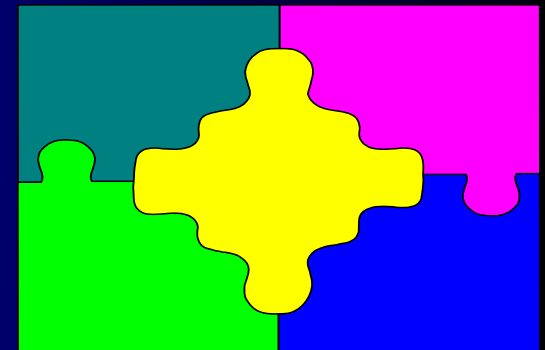
Australian Health Outcomes Collaboration



The Health Outcomes Jigsaw

Integrating the elements for health improvement

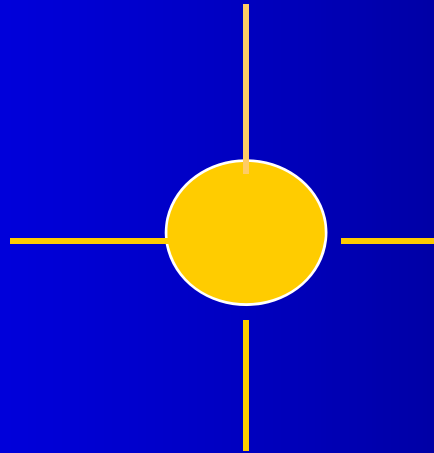
Health outcomes, health gain, population health, evidence based medicine and health care, clinical practice improvement, practice guidelines, benchmarking, continuous quality improvement, quality of life, consumer focus, cost effectiveness...



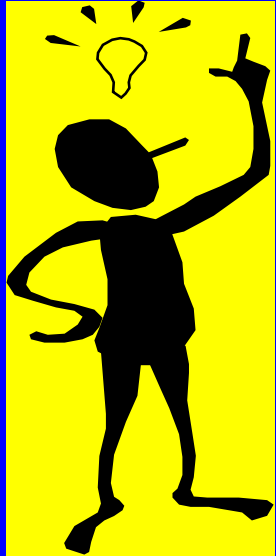
Health Outcomes: 6 Reasons

- **increasing expenditure/ cost containment**
- **limited information on effects of treatments/ services**
- **practice variations across regions/ physicians**
- **whether new technologies improve patient well-being**
- **concerns re quality of care**
- **increasing empowerment of consumers**

What is a health outcome?



A health outcome is a change in the health of an individual, or a group of people or a population, which is wholly or partially attributable to an intervention or series of interventions (AHMAC 1993, Modified NHIMG 1996).



Health Outcomes Related Performance Indicators

An outcome-related performance indicator in the health and welfare field is a statistic or other unit of information which reflects, directly or indirectly, the performance of a health or welfare intervention, facility, service or system in maintaining or increasing the wellbeing of its target population (Armstrong, 1994).

CRS example

Health Outcomes Framework

Population Health

Determinants of Health
Fixed and modifiable risk factors

Dimensions of Health

physical
mental
social
pain
HRQOL
Disease
impairment
life expectancy

Intermediate Outcomes

Interventions programs services

Direct Outcomes

Health outcome related performance indicators

Outputs

Process

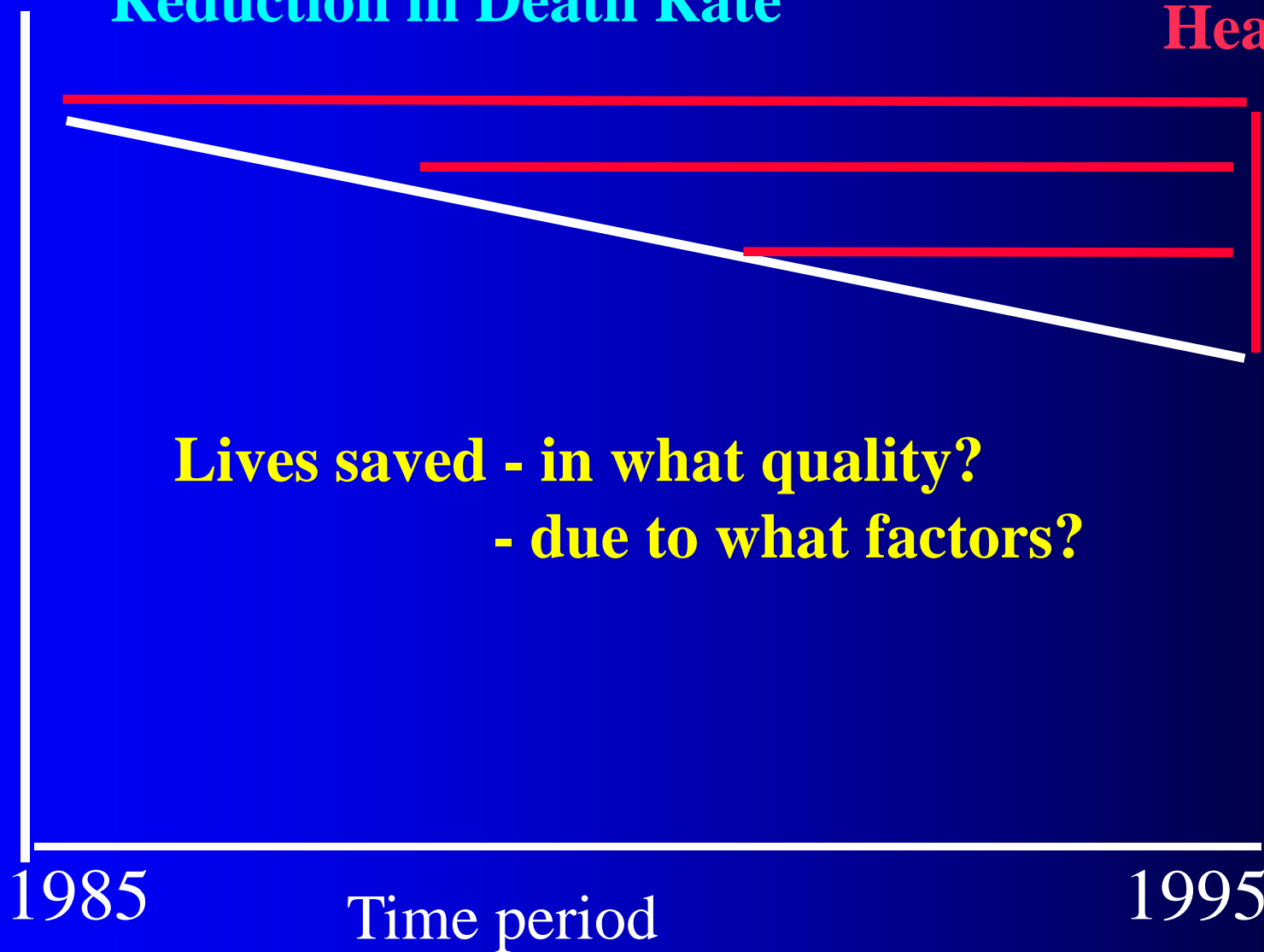
Inputs

Health Status Monitoring versus Health Outcomes Monitoring & Research

Reduction in Death Rate

Health Gain

Number of deaths



EFFICACY and EFFECTIVENESS

Converting inputs to outcomes

<u>Domain</u>	<u>Measure</u>	<u>Process</u>
science	efficacy	RCT
practice	effectiveness	evaluation
process	quality of care	QA
personal	competence	audit

Research Designs & Levels of Evidence

Pretest-Posttest Designs (before and after, with and without)

Randomized control trial

Non equivalent comparison group designs -no random allocation (field experiments)

One group designs -no comparison/control

Other Designs

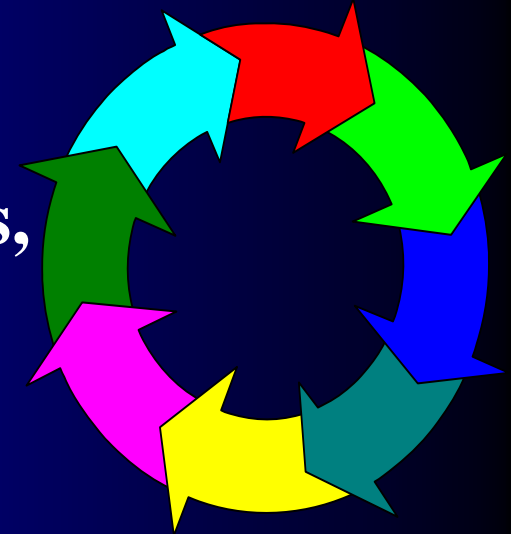
Posttest only designs, time series designs, surveys, correlation and factor analytic studies, data mining, naturalistic observations and 1 shot case studies, qualitative research designs - including focus groups

What is the Level of Evidence?

- **Level I:** systematic review of all RCTs
- **Level II:** at least one properly designed RCT
- **Level III:**
 - well designed pseudo-RCT, (1)
 - comparative studies with concurrent controls and allocation not randomised (cohort studies) (2)
 - case-control studies or interrupted time series with a parallel control group (3)
 - comparative studies with historical control, two or more single arm studies or interrupted time series without a parallel control group (3)
- **Level IV:** evidence obtained from case studies, either post-test or pre-test and post-test

The Service Evaluation Cycle

- **Structure** Context, organization/ model, inputs, e.g. adequacy of \$, staff training etc
- **Process** How service delivered, procedural endpoints, process outcomes, e.g. standards, QA, care paths, timeliness
- **Outputs** Efficiency, throughputs - often tied to costs data, e.g. alos, \$ per episode
- **Outcome** Change in health status due to intervention, e.g. dead/ alive/ hrqol/ disability
- **Impact** Effect on the broader health and economic context



Q.A. & Health Outcomes Related Performance Indicators



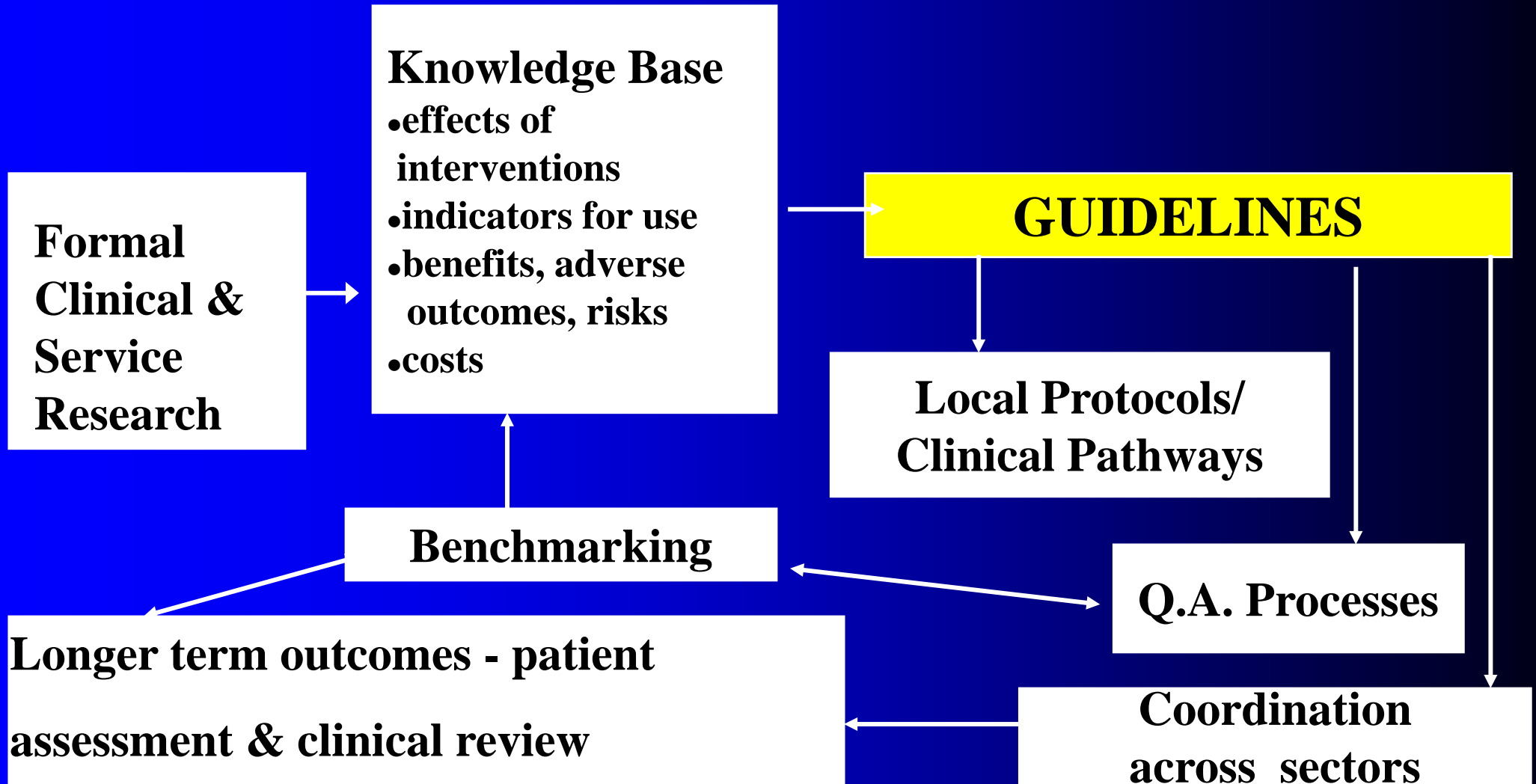
- **Structure/ Inputs: Organizational Structures, Standards & Resources.**
- **Process/ 'Quality' Accreditation Indicators.**
- **Patterns of Practice: Guidelines, Pathways, Standards & Variations, Adverse Events**
- **Throughput Issues & Waiting Lists: Efficiency & Effectiveness**
- **Consumer Information & Satisfaction**
- **Monitoring and Benchmarking Outcomes**

Guideline Issues

- **Stakeholder Involvement in Development?**
- **Credibility - Commercial /Colleges**
- **Evidence or Consensus Based?**
- **Outcomes Monitoring?**
- **Recency of Evidence**
- **Local Adaptation and Organizational Implementation**
- **Dissemination and Compliance**



Guidelines Development, Implementation and Evaluation



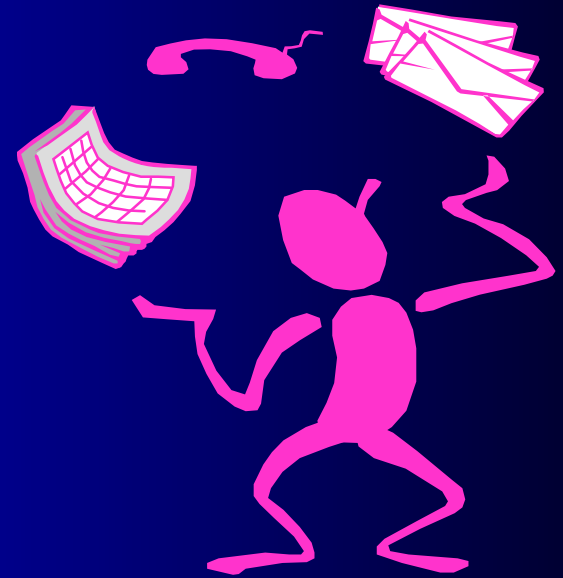
GUIDELINES

Useful for guiding practice

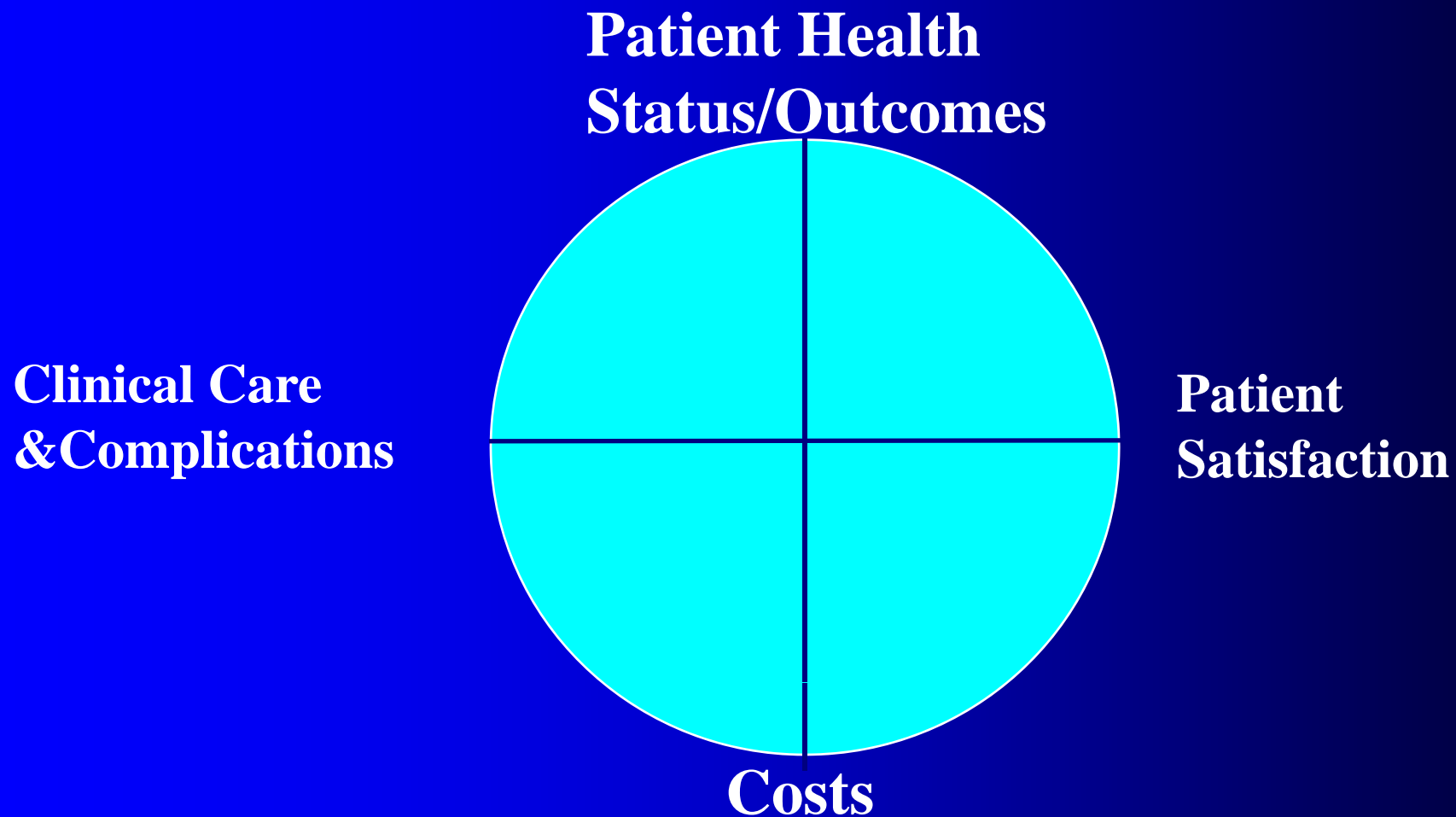
BUT NEED TO

- continually update these guidelines based on evidence
- assess whether clinicians are using the guidelines
- assess whether the use of guidelines is leading to better patient outcomes

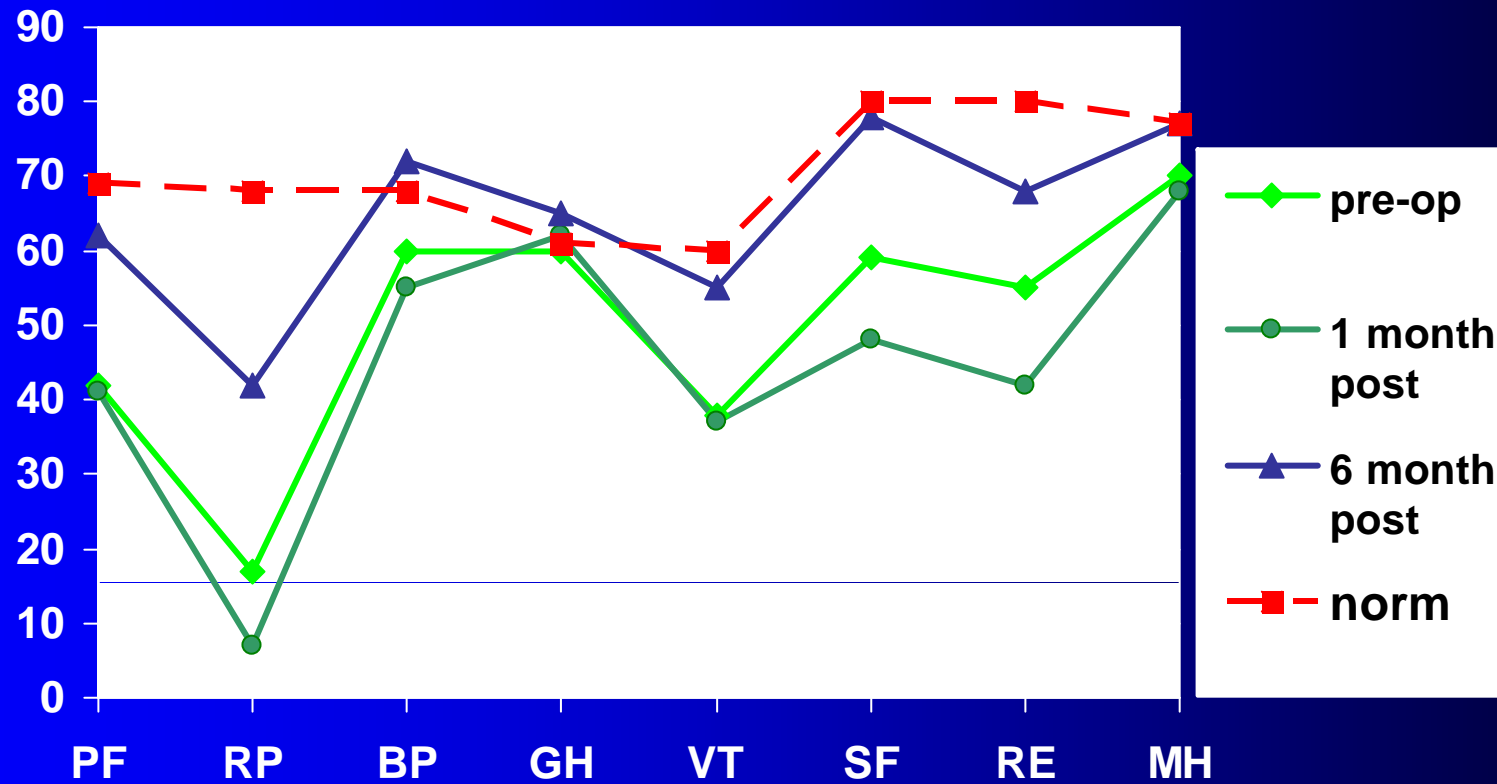
note National Guideline Clearinghouse (USA) can be found at www.guidelines.gov



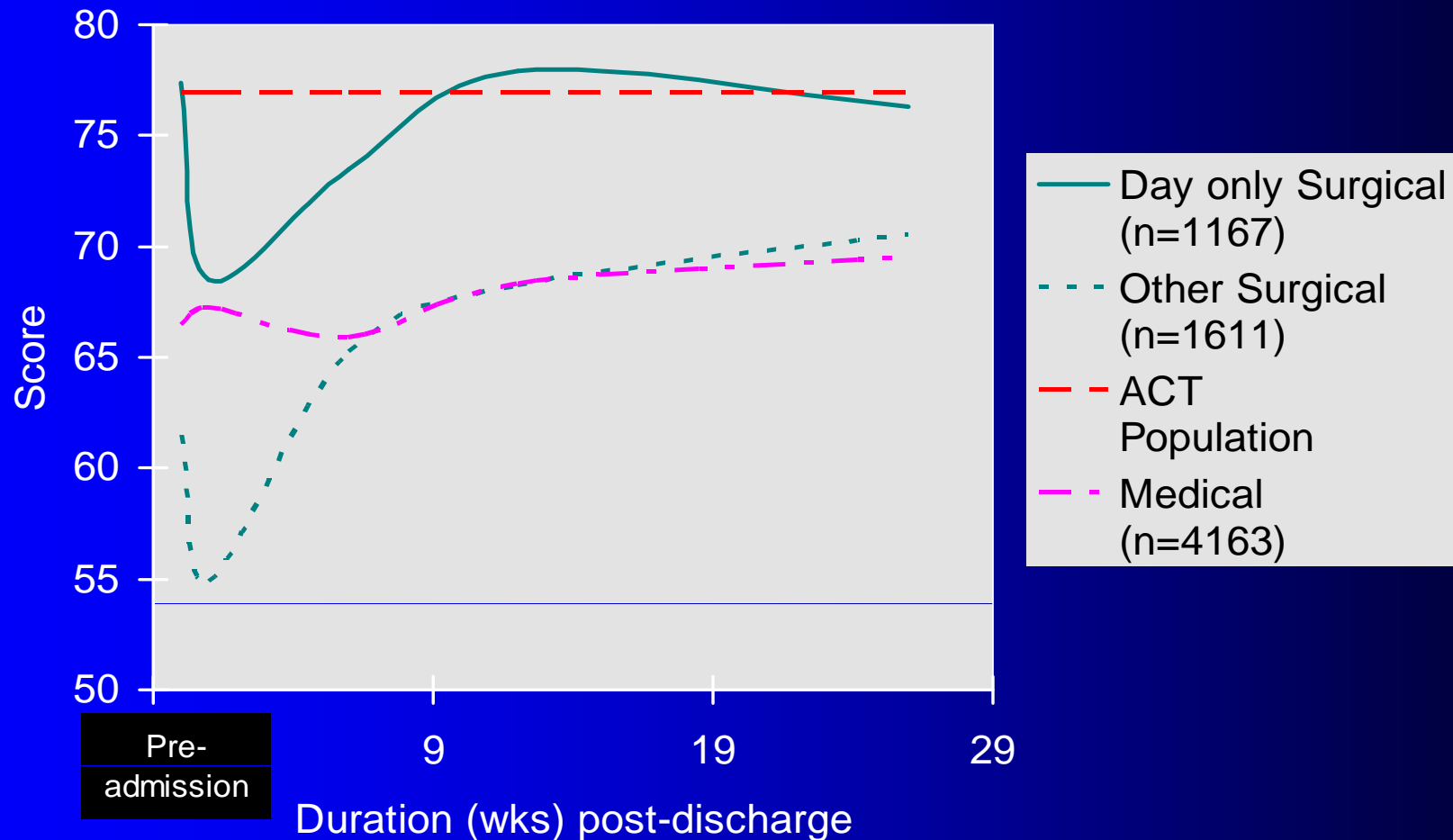
Q.A. and Health Outcomes Monitoring Throughout the Clinical Pathway



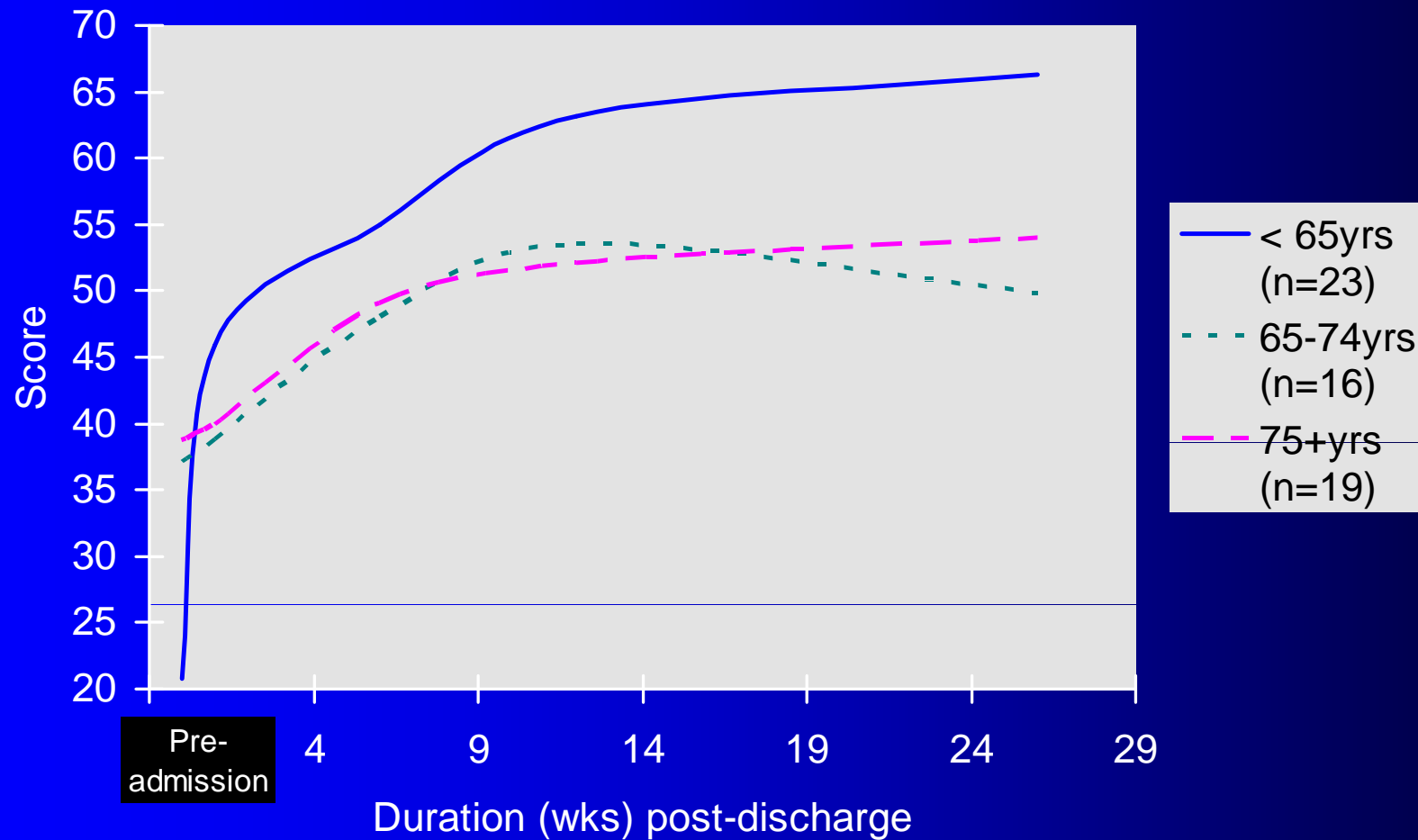
HEART VALVE REPLACEMENT



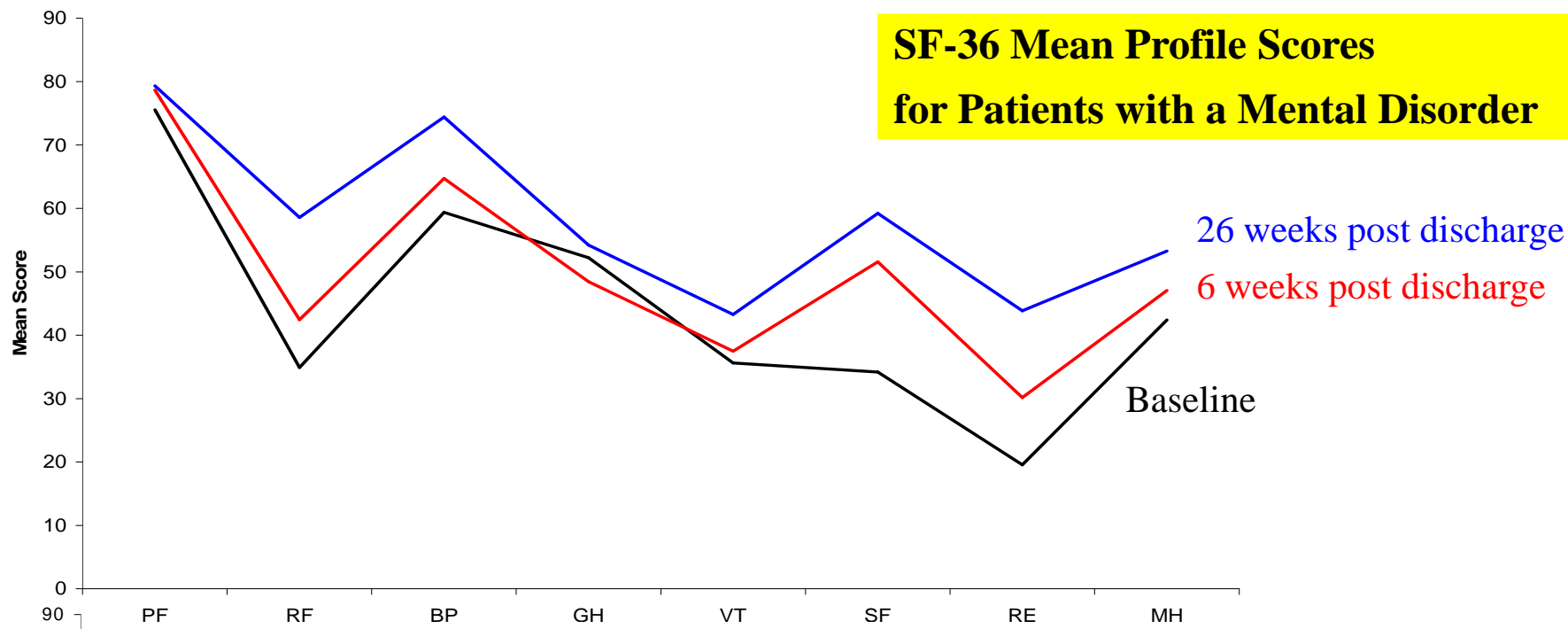
Mean Pain Scores (SF-36) for Surgical and Medical Patients



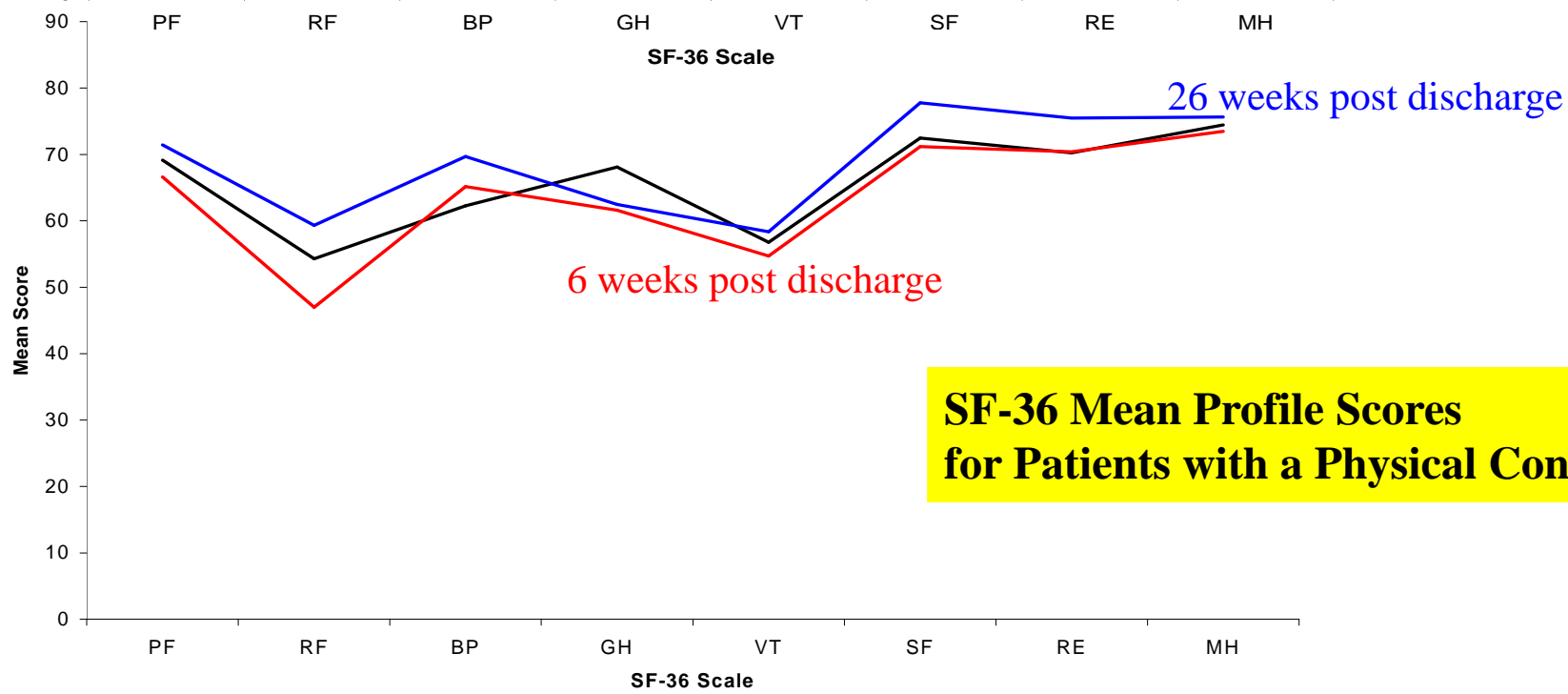
Mean Pain Scores (SF-36) for Hip Replacement Patients by Age Group



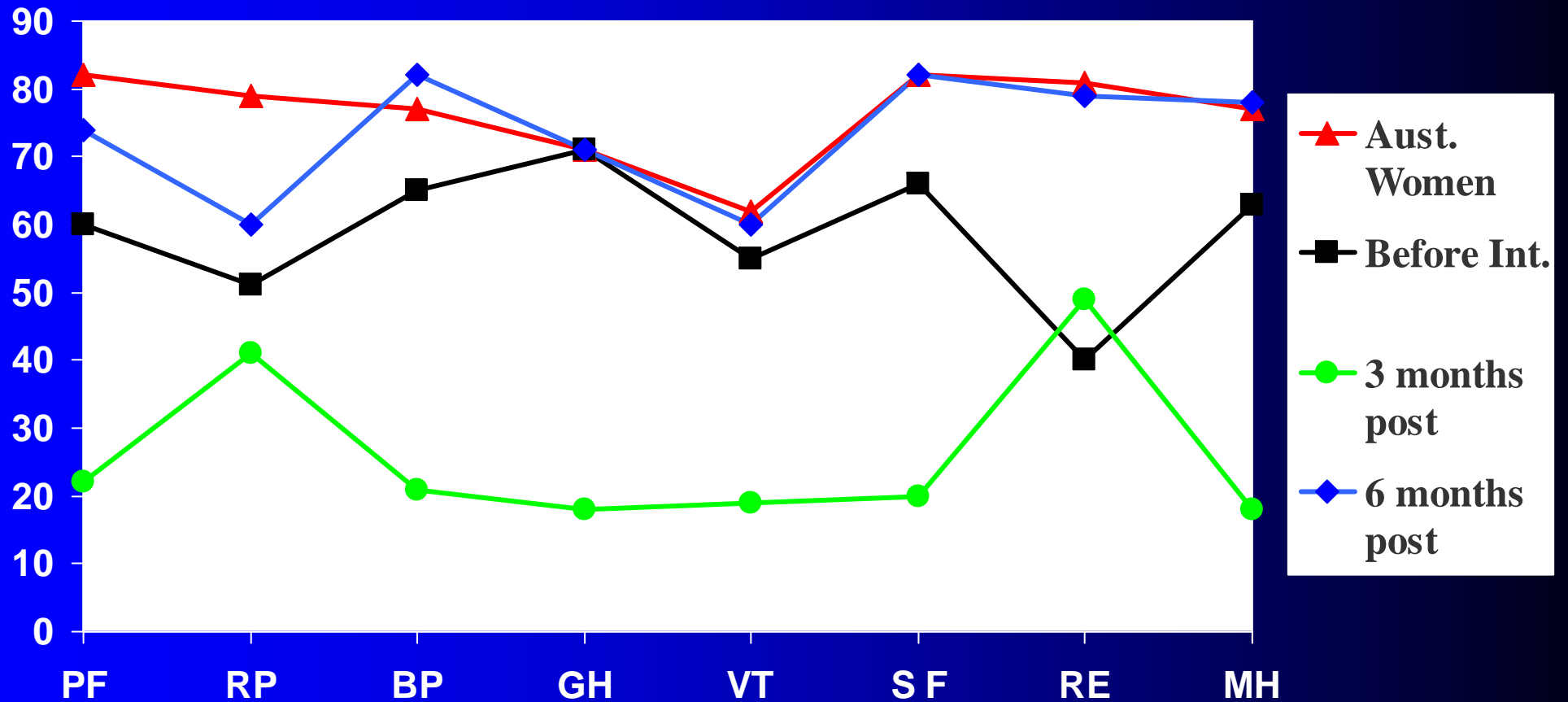
**SF-36 Mean Profile Scores
for Patients with a Mental Disorder**



**SF-36 Mean Profile Scores
for Patients with a Physical Condition**



SF-36 Scores: Gynecological Cancer Surgery



Benchmarking For Costs and Quality



- **Regional and Inter-hospital Practice Variations**
- **Interim Standards or Excellence?**
- **Anonymity or in the Public Domain**
- **Statistical/ Data Issues - indicators, aggregation, adjustments, time frames, analysis**
- **Meaningless Benchmarking**
- **Clinical Audit of Outcomes Data -AROC, MH, Orthopedics**

CCHOP to PHT and Discoverquick.com

- Protocol Hypothesis Testing (PHT) is a web enabled intelligent knowledge management system for outcomes management - providing real time feedback to clinicians
- Allows recruitment to RCTs and HSR studies while providing support for patient care
- Integrates EBM knowledge bases, guidelines, in developing decision support algorithms
- Includes HRQOL data with settings which can be linked to instrument review repositories and provide feedback to these



CLINICAL ASSESSMENT

Hospital Device, DOB : 1/1/1945

Assessed By: Dr. Bruce Shadbolt

Risk Assessments and Diagnoses

Breast Cancer

Severity

Early unilateral single primary invas. BC

Setting

In Patient

Status

Follow up phase

Add New Diagnosis Add New Assessment

A. Tumour size (invasive)

21-50 mm

B. Tumour margin

0 mm

C. Nipple involvement

Yes

D. Widespread disease

No

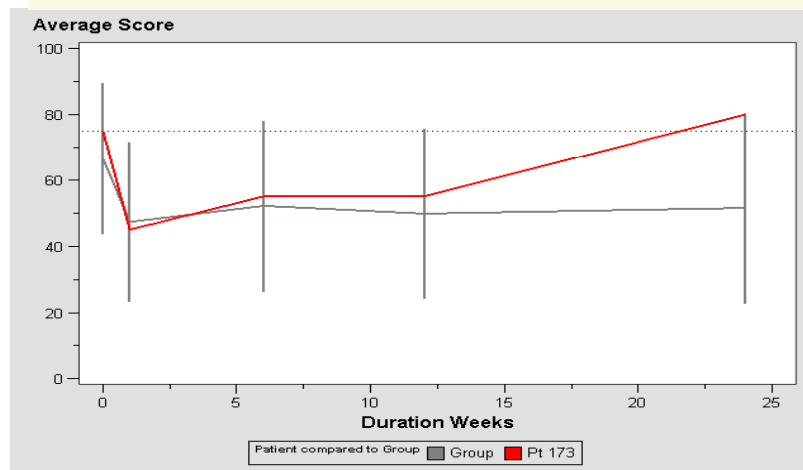
E. Nodal categories

No regional lymph node metastasis

Patient progress

Vitality by time

Average Vitality Levels (+/- SD) over time comparing Patient against Group



Types of Outcome Indicators

Direct Indicators

mortality, period of survival, morbidity as measured by generic, disease specific and clinical indicators over time

Predictors

accident/ risk factors and injury, Glasgow Coma Scale score, co-morbidity, severity

Indicators of Process

adverse events, compliance with guidelines, time in critical care, readmissions, complications, level of patient functioning, time to treatment

Types of Outcomes Indicators

Well-being Indicators accommodation, employment, transport, wellbeing

Relative Costs



alos, costs of treatments and services, economic impact on the individual - days of work, compensation and pension costs

Consumer Issues & Health Outcomes



- Access to care (and affordable medicine!)
- User satisfaction with, and participation in, care processes and services
- Informed consent and informed choice
- Accountability and quality of care
- Costs and value for money issues

WHOSE OUTCOMES?

Road Trauma: Antonia's Desired Outcomes (post injury)

- to survive
- regain the capacity to communicate
- regain as much functioning as impairments/ disabilities may permit
- come to terms with loss and future disability
- manage disability and minimize handicap
- to remain healthy albeit with a chronic disability
- to become less of a burden to carers
- to regain confidence and a sense of self control/ direction
- to obtain employment or income support
- regain and maintain independent living skills
- to live independently in the community

WHOSE OUTCOMES?

Desired outcomes

Indicators

- **Patient**
- **Parent/ Family**
- **A&E Director**
- **Director of Rehabilitation**
- **Commonwealth Health Administrator**
- **State Health Administrator**
- **Public Health Officer/ Epidemiologist**
- **General Practitioner**

Maximal and Optimal Outcomes

Optimal health outcomes are the best that can be achieved under the prevailing, practical circumstances of the health system

Maximal health outcomes cannot be achieved because of the practical 'conflict' at the system level, between the two immediate objectives of the health system

- Optimization of equity in the delivery of health interventions
- Optimization of the cost effectiveness of health interventions delivered

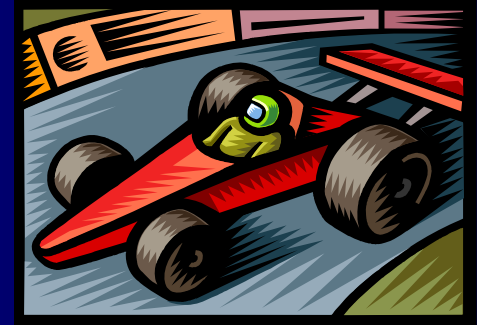
INDICATORS: ROAD TRAUMA

Primary Prevention

- might include indicators around intersectoral activities such as legislation concerning seat belts, licensing, car and road design, effectiveness of education campaigns - alcohol

Screening

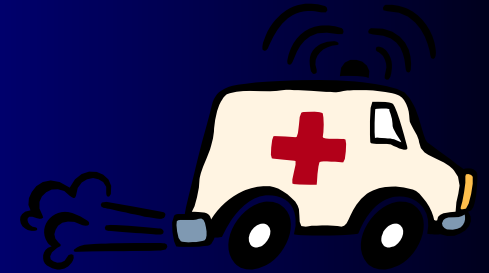
- drivers license testing including eye sight and epilepsy screening



INDICATORS: ROAD TRAUMA

Early Diagnosis or Intervention

- 'golden hour' - time to road trauma treatment centre, period of survival, appropriateness of care
accuracy of diagnosis



Treatment

- adverse events, complications, compliance with treatment guidelines, injury type and severity in relation to period of survival, hrqol

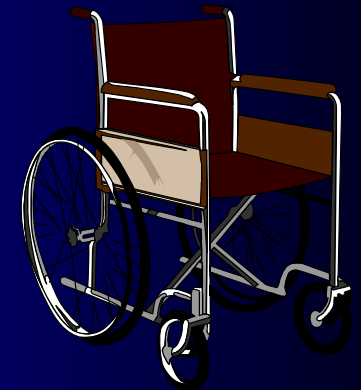
INDICATORS: ROAD TRAUMA

Rehabilitation

- time to rehabilitation, wellbeing, health related quality of life during rehabilitation, proportion of patients with persisting disability who have received appropriate rehabilitation

Outpatient Rehabilitation/Ambulatory Care

- proportion of patients returning to and retaining independent community residence, return to work or gaining of employment or training



INDICATORS: PALLIATION

Proportion of patients dying in their preferred surroundings

Proportion of patients dying free of pain and physical discomfort

Proportion of patients dying at peace with themselves

Prevalence of healthy grieving in close family and friends

Patterns of practice, e.g. drug use, unnecessary surgical procedures

Desired Outcomes: Care Co-ordination

Improved patient health and wellbeing outcomes

Improved patient management and monitoring

Reduction in lifestyle risk behaviours of client group

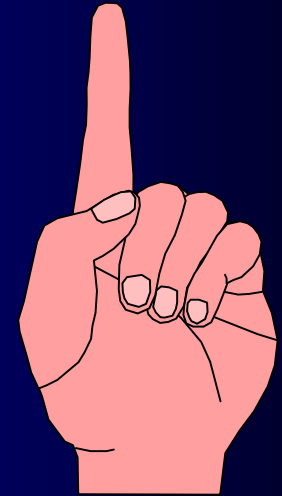
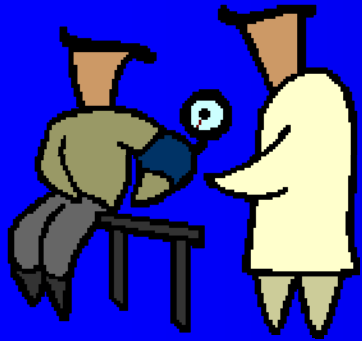
Prevention of the onset of associated diseases and complications

Reduction in acute episodes and unplanned hospital admissions

Patient satisfaction with care management

Patient compliance with medications and treatment plans, increased patient knowledge

Reduction in the proportion of patients requiring medication for condition management, appropriateness of prescribing patterns



Indicators Exercise



Indicators Exercise

- **Read the case study**
- **Choose a player – e.g. Mother, Emily, Health Administrator etc**
- **Consider the desired outcomes of your chosen player**
- **Discuss your ideas with your group**
- **Report back**

Emily: Asthma

- Patient
- Parent/ Family
- A&E Director
- Government Health
- Administrator
- Public Health Officer
- Epidemiologist
- General Practitioner
- Community Services

Desired outcome

minimize effect lifestyle & sport

Areas for Indicators or Measures

Asthma symptoms, HRQol, pulmonary function, effective self-management



Discussion



Some Questions to Ask



What is the intervention being evaluated?

What are the goals of the intervention?

What is the hypothesis?

Are we examining group or individual outcomes?

How do you define the intervention?

What are the desired outcomes of this intervention - if this treatment or service works what would you expect to happen?

What information does the organization collect routinely - does any of this reflect on outcome?

Is there any baseline information?

Allied Health Example : The Footpath Project (refer paper)

<i>Outcome Type</i>	<i>Foot Health Indicators</i>	<i>Effectiveness Goal</i>	<i>Quality Action Point</i>	<i>Data Source</i>	<i>Frequency of Review</i>
Disease Specific Outcome					
General Health Outcome					
Patient Performance Outcome					
Patient Satisfaction Outcome					

Allied Health Example (Cont.)

- The *indicator* is based on what the intervention is trying to achieve within the scope of the service. A number of indicators may be identified, and these should be prioritized into those aspects of care which are most important for the service.
- The *effectiveness goal* is the level to which the organization is going to aim to achieve the chosen indicator. The *effectiveness goals* and *quality action points* are arbitrary and ideally, should be based on the evidence of the effectiveness of interventions as shown by research.
- The *quality action point* is a predetermined threshold that is used to flag the need to introduce quality improvement activity to improve performance on the indicators.
- The *data source* requires careful consideration to provide the level of information required in the most effective way. Consideration must be given to the availability of the data, the method of data collection, how much data is required to provide meaningful results and, the value of the data in terms of providing useful information.

Allied Health Example (Cont.)

- The **outcome type** may be ‘General Health Outcome’
- The **foot health indicator** could be Foot Health Status Questionnaire (FHSQ)
- The **effectiveness goal** might be: 90% of patients report that their foot status is excellent or very good
- The **quality action point** may be 70%
- The **data source** may be giving the FHSQ to 33% of patients who receive foot health care
- The **frequency of review** might be 6 monthly

....Population Group Approaches

INDICATORS FOR POPULATION GROUPS: WOMEN'S HEALTH

Primary Prevention

Might include indicators concerning modifiable risk factors for women's health. The effectiveness of primary prevention/ education campaigns and appropriate targeting of prevention campaigns, e.g. smoking prevalence and incidence, nutrition/ obesity, domestic violence etc.



Screening and Ambulatory Care

Breast and cervical cancer screening; proportion of women at risk receiving routine monitoring for hypertension, cholesterol, BMI, depression, and appropriate referral to health promoting activities, presence of care plans, care satisfaction

INDICATORS: WOMEN'S HEALTH

Early Diagnosis or Intervention

Gender differentials concerning timeliness of diagnosis and treatment, stage of condition at diagnosis, appropriateness of care, accuracy of diagnosis, prescribing patterns

Treatment

Adverse events, complications, compliance with treatment guidelines, patient compliance with treatment protocols, practice variations in relation to gender, prescribing patterns, severity of condition in relation to survival, hrqol

INDICATORS: WOMEN'S HEALTH

Rehabilitation

Time to receive rehabilitation, wellbeing, health related quality of life during rehabilitation, proportion of women with persisting disability who have received appropriate rehabilitation

Outpatient Rehabilitation

Proportion of women returning to and retaining independent community residence, return to work/ care roles or gaining/ returning to employment or training

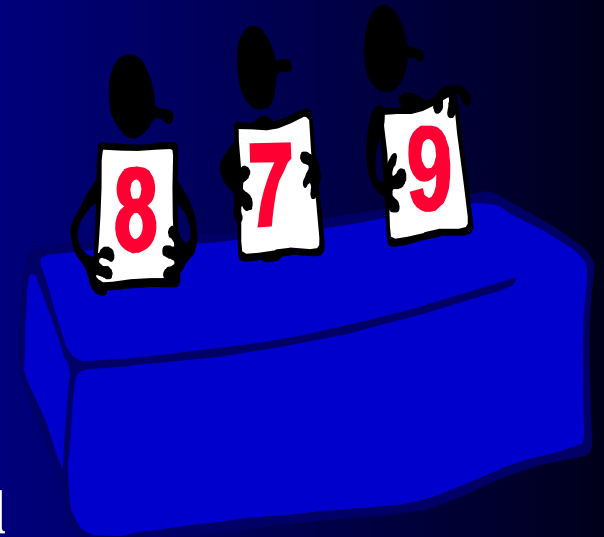
INDICATOR ISSUES: WOMEN'S HEALTH

Indicator: High Cesarean section/ hysterectomy rate compared with other states (and therefore higher costs)

How do we know whether the rates are reflecting avoidable/ inappropriate surgical intervention or conservative practice?

Why is this occurring and are there regional/ hospital variations that beg questions concerning appropriate practice?

Is the average for Australia the appropriate benchmark? What might best practice guidelines and available evidence indicate the rate should be?



Indicator Issues: Strategic Plans

Objective: Increase support for women with disabilities affected by violence and reduce their isolation

Initiative: Establish peer support groups for women...

Performance Indicator: 4 peer support groups to be established by xxxx

Outcome Issue: Did the presence of peer support groups improve these women's hrqol, self esteem, or reduce their isolation? Did the participants judge these groups and this strategy to be of value?

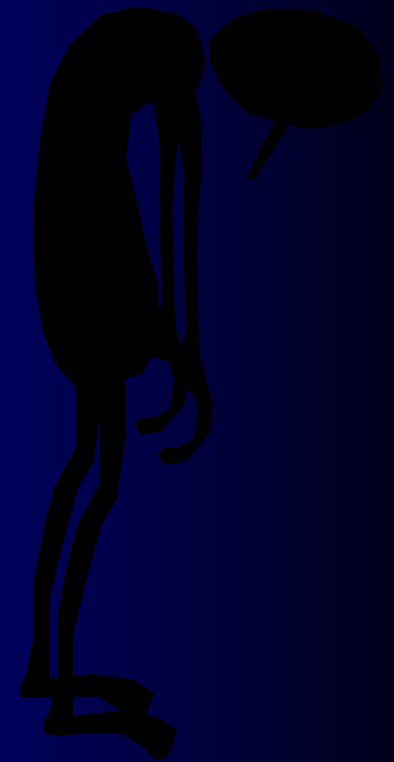
Indicator Issues: Strategic Plans

Objective: Lower incidence of ongoing depression in older women in residential care settings...

Initiative: Develop guidelines for appropriate assessment services on identification, and provide support for older women when moving into residential care

Performance Indicator: Develop guidelines for assessment services by **XXXX**

Outcome Issue: Are the guidelines being used, what support are the women receiving following identification, and to what extent are these activities contributing to better patient outcomes. (Note with better identification strategies your incidence might increase!)



Exercise: Kate

- **What are some key issues for indigenous health across the continuum of care (brainstorm)**
- **Using the example from women's health provided, brainstorm some indicators across the continuum of care for indigenous health**

INDICATORS FOR POPULATION GROUPS: INDIGENOUS HEALTH

Primary Prevention

Might include indicators concerning modifiable risk factors for indigenous health and the effectiveness and targeting of primary prevention/ education campaigns, e.g. smoking prevalence and incidence, alcohol use, petrol sniffing/ OPAL, road safety, nutrition, domestic violence, mental health and suicide risk

Screening and Ambulatory Care

Diabetes screening; proportion of indigenous people at risk receiving routine monitoring for hypertension, cholesterol, BMI, depression and mental health, kidney failure, hearing and vision problems, low birth weight etc. Appropriate referral to health promoting activities, presence of care plans, care satisfaction

INDICATORS: INDIGENOUS HEALTH

Early Diagnosis or Intervention

Health differentials concerning timeliness of diagnosis and treatment, access to services, stage of condition at diagnosis, appropriateness of care, accuracy of diagnosis, prescribing patterns (adult and child health check processes in community).

Treatment

Adverse events, complications, compliance with treatment guidelines, patient compliance with treatment protocols, practice variations in relation to ethnicity, prescribing patterns, severity of condition in relation to survival, hrqol

INDICATORS: INDIGENOUS HEALTH

Rehabilitation

Time to receive rehabilitation, wellbeing, health related quality of life during rehabilitation, proportion of indigenous people with persisting disability who have received appropriate rehabilitation, access to rehab services. In situ model for rehab?

Outpatient Rehabilitation

Proportion of indigenous peoples returning to and retaining independent community residence, return to work/ care roles or gaining/ returning to employment or training. In situ model for rehab?

Population Approaches: National Health Priority Areas

NG&Ts, Better Health Outcomes for all Australians...and now NHPAs

- **Leading causes of death and disability, the burden of illness for the community**
- **Areas of increasing prevalence, or high rates of prevalence**
- **Areas of concern for our indigenous peoples (diabetes)**
- **Areas where it is thought gains can be made (ebhc)**
- **High social and financial cost.....but**
- **Disease based - priority populations? Differentials and equity issues? Political knee jerks?**

Health Status and Outcomes

How healthy are Australians? Is it the same for everyone? Where is the most opportunity for improvement?

Health Conditions

Prevalence of disease, disorder, injury or trauma or other health related states

Human Function

Alterations to body, structure or function (impairment)
activities (activity limitation)
and participation (restrictions in participation)

Life Expectancy & Wellbeing

Broad measures of physical, mental and social wellbeing of individuals (QOL/HRQOL) and derived indicators such as Disability Adjusted Life Expectancy (DALE)

Deaths

Age and/ or condition specific mortality rates

Determinants of Health

Are the factors determining good health changing for the better? Is it the same for everyone? Where and for whom are these factors changing.

Environmental Factors

Physical, chemical & biological factors
e.g air, water & food quality
resulting from chemical pollution
& waste disposal

Socio-economic

Factors such as education, employment, per capita expenditure on health, & average weekly earnings

Community Capacity

Factors such as population density, age distribution, health literacy, housing, community support services & transport

Health Behaviours

Attitudes, beliefs, knowledge & behaviours
e.g. patterns of eating, physical activity, alcohol consumption and smoking

Person-related Factors

Genetic related susceptibility to disease & other factors such as blood pressure, cholesterol levels & body weight

Health System Performance

How well is the health system performing in delivering quality health actions to improve the health of all Australians? Is it the same for everyone?

Effective

Care, intervention or action achieves outcome

Responsive

Service provides respect for persons and is client oriented

Continuous

Ability to provide uninterrupted, coordinated care or integrated service across settings & time

Appropriate

Care/intervention/ action is relevant to client needs and based on established standards

Accessible

People can obtain health care at the right place and irrespective of income, geography & cultural background

Capable

Individual/ service's capacity to provide a health service based on skills and knowledge

Efficient

Achieving desired results with most cost effective use of resources

Safe

The avoidance or reduction to acceptable limits of actual or potential harm from health care management or the environment in which health care is delivered

Sustainable

Capacity to provide necessary infrastructure and respond to emerging needs

Exercise

- **Let us examine the 3 domains of the National Health Performance Framework (NHPF, 2001) with regard to indigenous health issues and services**

Health Status and Outcomes

How healthy are Australians? Is it the same for everyone?
Where is the most opportunity for improvement?

Health Conditions

Compare prevalence of diseases of indigenous peoples with other groups

Human Function

Impairment, activity limitation and participation

Life Expectancy & Wellbeing

Life expectancy at birth compared to other pop groups

Deaths

Mortality rates

Determinants of Health

Are the factors determining good health changing for the better? Is it the same for everyone? Where and for whom are these factors changing?

Environmental Factors

E.g. Clean water supply

Socio-economic

E.g. Education, employment

Community Capacity

E.g. Age distribution

Health Behaviours, Beliefs, Attitudes

E.g. Beliefs about causation

Person-related Factors

E.g. Genetic related susceptibility to disease & other factors such as blood pressure, cholesterol levels and body weight

Health System Performance

How well is the health system performing in delivering quality health actions to improve the health of all Australians? Is it the same for everyone. Service/ program level

Effective

Care, intervention or action achieves outcome

Responsive

Service provides respect for persons and is client oriented

Continuous

Ability to provide uninterrupted, coordinated care or integrated service across settings & time

Appropriate

Care, intervention or action is relevant to client needs and based on established standards

Accessible

People can obtain health care at the right place and irrespective of income, geography & cultural background

Capable

Individual/ service's capacity to provide a health service based on skills and knowledge

Efficient

Achieving desired results with most cost effective use of resources

Safe

The avoidance or reduction to acceptable limits of actual or potential harm from health care management or the environment in which health care is delivered

Sustainable

Capacity to provide necessary infrastructure and respond to emerging needs

Health Status

How healthy are Australians? Is it the same for everyone?

Where are the best opportunities for improvement?

Health conditions

Prevalence of disease, disorder, injury or trauma or other health related states

Human function

Alterations to body, structure or function (impairment), activity limitations and restrictions in participation

Wellbeing

Measures of physical, mental, and social wellbeing of individuals

Deaths

Mortality rates and life expectancy measures

Determinants of Health

Are the factors determining good health changing for the better? Where and for whom are these factors changing? Is it the same for everyone?

Environmental factors

Physical, chemical and biological factors such as air, water, food and soil quality

Community and socioeconomic

Community factors such as social capital, support services, and socio-economic factors such as housing, education, employment and income

Health behaviours

Attitudes, beliefs, knowledge and behaviours such as patterns of eating, physical activity, smoking and alcohol consumption

Bio-medical factors

Genetic-related susceptibility to disease and other factors such as blood pressure, cholesterol levels and body weight

Health System Performance

How does the health system perform? What is the level of quality of care across the range of patient care needs? Is it the same for everyone?

Does the system deliver value for money and is it sustainable?

Effectiveness

Care/intervention/action provided is relevant to the client's needs and based on established standards. Care, intervention or action achieves desired outcome

Safety

The avoidance or reduction to acceptable limits of actual or potential harm from health care management or the environment in which health care is delivered

Responsiveness

Service is client orientated, Clients are treated with dignity, confidentiality, and encouraged to participate in choices related to their care

Continuity of Care

Ability to provide uninterrupted, coordinated care or service across programs, practitioners, organisations and levels over time

Accessibility

People can obtain health care at the right place and right time irrespective of income, physical location and cultural background.

Efficiency & Sustainability

Achieving desired results with most cost effective use of resources. Capacity of system to sustain workforce and infrastructure, to innovate and respond to emerging needs

Community and Health System Characteristics

**Population
Health Indicators**

Outcomes

2000
Outcomes focussed
interventions and indicators

**System efficiency
indicators**

Healthy
Population

People at
risk

Onset of
disease

Complications

Consequences

Health Advancement
and risk avoidance

Identify and reduce
risk

Diagnose & treat to
avoid complications

Minimize consequences
of late interventions

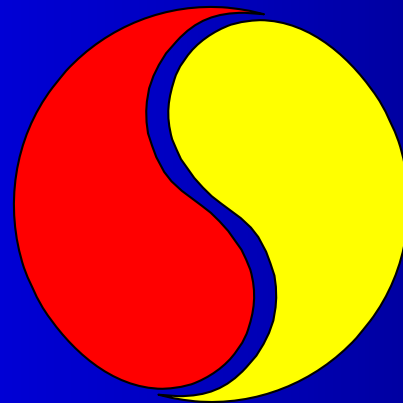
- Costs
- Relative cost effectiveness
- Cost and quality benchmarking
- Throughput and activity indicators

Structures

Enabling Factors

Processes

Australian Health Outcomes Collaboration
Centre for Health Service Development
University of Wollongong
but located at The Canberra Hospital



WEB SITE

currently <http://chsd.edu.au/ahoc>

- **General Information**
- **Research Activities Proforma**
- **Current and Forthcoming Educational Activities**
- **Health Outcomes Education and Research Personnel**
- **Instrument Reviews**
- **Instrument Order Forms**
- **Related Sites**
- **Contact Details**

Some Australian Organisations

- Australian Bureau of Statistics
- Australasian Cochrane Collaboration – databases and linked organisations
- Australian Council for Healthcare Standards
- Australian Institute of Health and Welfare
- Centre for Advances in Epidemiology and IT -& dicoverquick.com
- Centre for Program Health Evaluation
- Centre for Health Economics and Research Evaluation
- Centre for Health Service Development
- Centre for Research in Evidence Based Medicine (Bond Uni)
- Department of Health and Ageing -useful web site!
- State and Territory Health Departments - web sites
- OZQOL Network

Some International Agencies

- Agency for Healthcare Research and Quality (USA)
- Qmetric, USA
- National Centre for Health Outcomes Development UK
- Cochrane Database of Systematic Reviews; Cochrane Controlled Trials Register; Cochrane Review Methodology Database
- York Database of Abstracts of Reviews of Effectiveness (DARE)
- Centre for EBM at University of Oxford
- Centre for EBM Practice Australia (with a network of about 10 related agencies including the Australasian Cochrane Centre)
- FACTT, USA
- RAND (MOS-RAND SF-36)
- Sheffield Centre for Health and Related Research
- MAPI Group (France)...QOLID database
- WHO and OECD and there are many others.

See our web links and refer to the health outcomes reading and resources list provided

Emily Exercise

Emily: Asthma

- Patient

Desired outcome

Minimize disruption
HRQOL, reduction acute
episodes, self
management

Areas for Indicators or Measures

Asthma symptoms,
HRQOL, pulmonary
function, effective self-
management-reduction
acute episodes & admits

- Parent/Family

Manage condition

Avoid acute episodes

Presence of management
plan, parent knowledge,
reduced admits

- A&E Director

Minimize avoidable
admissions

Effective discharge
planning, avoidable
presentations/
readmissions to ED

Emily: Asthma

Desired outcome

Areas for Indicators or Measures

- **Government Health**

- **Administrator**

- **PHO/ Epidemiologist**

- **General Practitioner**

- **Community Services**

Reduce \$ associated with condition through better management by providers - ensure \$ spent leading to better management

Identify risk, incidence & distribution factors to assist in planning

Early detection and better patient management

Provide appropriate community education programs, appropriate management and co-ord across services

Compliance with guidelines, costs data, PBS data, performance indicators concerning effectiveness \$ spent

Pop & regional data concerning spread & incidence, asthma surveys

Screening for risk, presence of management plan, routine monitoring systems

Parents and teachers in education programs, identification/screening practices, appropriate referral practices, compliance with guidelines

Sameena: Depression

	Desired outcome	Areas for Indicators or Measures
■ Patient	Relieve symptoms & cope HRQOL, manage baby, reduce isolation	Reduction in symptoms – Qol/ Mental Health scale over time.....
■ Husband	Understand condition Better family relationships	Accessing counseling, relationship advice, DV reports?
■ Baby	Minimize avoidable admissions	Achieve normal developmental milestones

Sameena: Depression

Desired outcome

Areas for Indicators or Measures

■ GPs

Reduction in symptoms,
appropriate med.
Management, referrals.....

Care plan & monitoring,
referrals to appropriate
services, appropriate med.

■ Community Health

Appropriate management
plan & co-ord. of services

Presence of care plan, use of
support services, baby
achieving developmental
milestones

■ Turkish Support Group

Provide effective support

Time from referral to follow
up, attendance at support
group (proxy)

■ A&E Director

Avoid emergency admits

Number of ED admissions

■ Govt. Health Administrator

Avoid hospitalization or
institutionalization

Compliance with care
plans/guidelines for people
from CALD backgrounds

Materials

- **Paper, Case-Study Kit, Reading Lists**

INDICATORS FOR POPULATION GROUPS: INDIGENOUS HEALTH

Primary Prevention

Screening and Ambulatory Care

INDICATORS: INDIGENOUS HEALTH

Early Diagnosis or Intervention

Treatment

INDICATORS: INDIGENOUS HEALTH

Rehabilitation

Outpatient Rehabilitation

Health Status and Outcomes

How healthy are Australians? Is it the same for everyone?
Where is the most opportunity for improvement?

Health Conditions

Compare prevalence of diseases of indigenous peoples with other groups

Human Function

Impairment, activity limitation and participation

Life Expectancy & Wellbeing

Life expectancy at birth compared to other pop groups

Deaths

Mortality rates

Determinants of Health

Are the factors determining good health changing for the better? Is it the same for everyone? Where and for whom are these factors changing?

Environmental Factors

E.g. Clean water supply

Socio-economic

E.g. Education, employment

Community Capacity

E.g. Age distribution

Health Behaviours, Beliefs, Attitudes

E.g. Beliefs about causation

Person-related Factors

E.g. Genetic related susceptibility to disease & other factors such as blood pressure, cholesterol levels and body weight

Health System Performance

How well is the health system performing in delivering quality health actions to improve the health of all Australians? Is it the same for everyone. Service/ program level

Effective

Appropriate

Efficient

Responsive

Accessible

Safe

Continuous

Capable

Sustainable