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PHCRED Forum
**Preventive Health Priorities
& Primary Health Care
Research Agendas**

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Presentation Overview

I Myths about prevention

- Prevention is self evidently better
- **Current spend on prevention too small @ ~2% health budget**
- **Prevention is better than cure**
- **Prevention is always a good investment**
- **Prevention will 'save' the health system and address burgeoning costs assoc with an ageing population**

II How determine Preventive Health Priorities

III Research gaps – related to primary care



What is meant by Prevention?

UK National Reference Group for Health & Wellbeing define a preventive intervention as

“a clinical, social, behavioural, educational, environmental, fiscal or legislative intervention designed to reduce the risk of illness, disability or premature death & to promote physical, social emotional & psychological wellbeing”

www.healthengland.org/health_england_publications

AIHW defines Prevention of disease/ill health as any

“Action to reduce or eliminate the onset, causes, complications or recurrence of disease or ill health.”

[AIHW, Australia's Health 2008 \(glossary of terms\).](#)



What is meant by Prevention?

Primary prevention limits the incidence of disease and disability by controlling exposure to risk and promoting protective health factors at the population level.

Secondary prevention comprises measures that aim to reduce the progression of disease through early detection (usually by screening) and early intervention, and is limited largely to at-risk groups in the population.

Tertiary prevention aims to reduce the negative impact of established disease by restoring function and reducing complications in the affected subset of the population”.

Russell, Rubin & Leeder. 'Preventative health reform: what does it mean for public health?' MJA 2008; 188 (12): 715 – 719, p.716)

Current spend on prevention is too small



- **Prevention is a preferred focus for health care spending and/or**
- **Prevention is more effective than other spending and/or**
- **Prevention is more cost-effective**



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Expenditure on Public Health

\$m 2007-08

AIHW Health Exp Bulletin Sept 2009

Communicable disease control	257
'Selected' health promotion	364
Organised immunisation	704
Environmental health	96
Food standards & hygiene	38
Breast, cervical, bowel cancer screening	289
Prevention of hazardous & harmful drug use	254
Public health research	154
Total	2159
	(2.1%)
All recurrent health	98107

Total spend on 'prevention'? 2007-08

UniSA	Area of expenditure	\$ million	%
	Public health	2,159	2.1
	Pharmaceuticals (13,720)		
	Cholesterol lowering	~1,100	
	Anti-hypertensive	~ 725	
	Diabetic agents	265	
	Other PBS + OTC if 10% of ~11,500	1,150	
	Clinical		
	Medical if 40% of 18 338	7,335	
	Other clinical/community if 40% of 8 568	3,062	
	Dental if 70% of 6 106	4,016	
	Hospital if 10% of 38 557	3,856	
	Admin + Research if 10% of 5 346	535	
	TOTAL prevention spend in health	~\$24,250	~25%*
	Non-health expenditure on prevention	???	
	* Total current health expenditure	\$98,017	

Is Prevention preferred?

Does society value Prevention over other ways of allocating health dollar?

Would we rather spend less on

- ◆ Critical care?
- ◆ Emergency care?
- ◆ Improving quality of life?
- ◆ Supporting carers?
- ◆ Palliative care?
- ◆ High level residential care?

Is Prevention preferred?

Survey results mixed

**Oregon experiment → no 1 priority Critical care/Treatment → cure
no 2 maternal & child health**

‘Fair innings’ argument → spend less on the elderly

Individual responsibility → less on smokers?

Is support for prevention more ideological/theoretical or real?

- Regional communities argue to keep their hospitals
- Value immediate vs delayed health gains
- Known beneficiary vs statistical benefit, Want to save known individuals
- Size of individual benefit matters: prefer Large vs Small – concept of ‘clinical’ significance



Is prevention better ?

Is prevention better value for money?

Are public health interventions more effective & cost-effective than other approaches?

Is prevention more effective & cost-effective than treatment (that doesn't have a preventive role)?

Is primary care more effective & cost-effective than hospital-based?

Findings

Where an intervention sits on the prevention/consequence continuum

Whether delivered to populations or individuals

Whether delivered to children or adults

Whether delivered in the community or in hospital

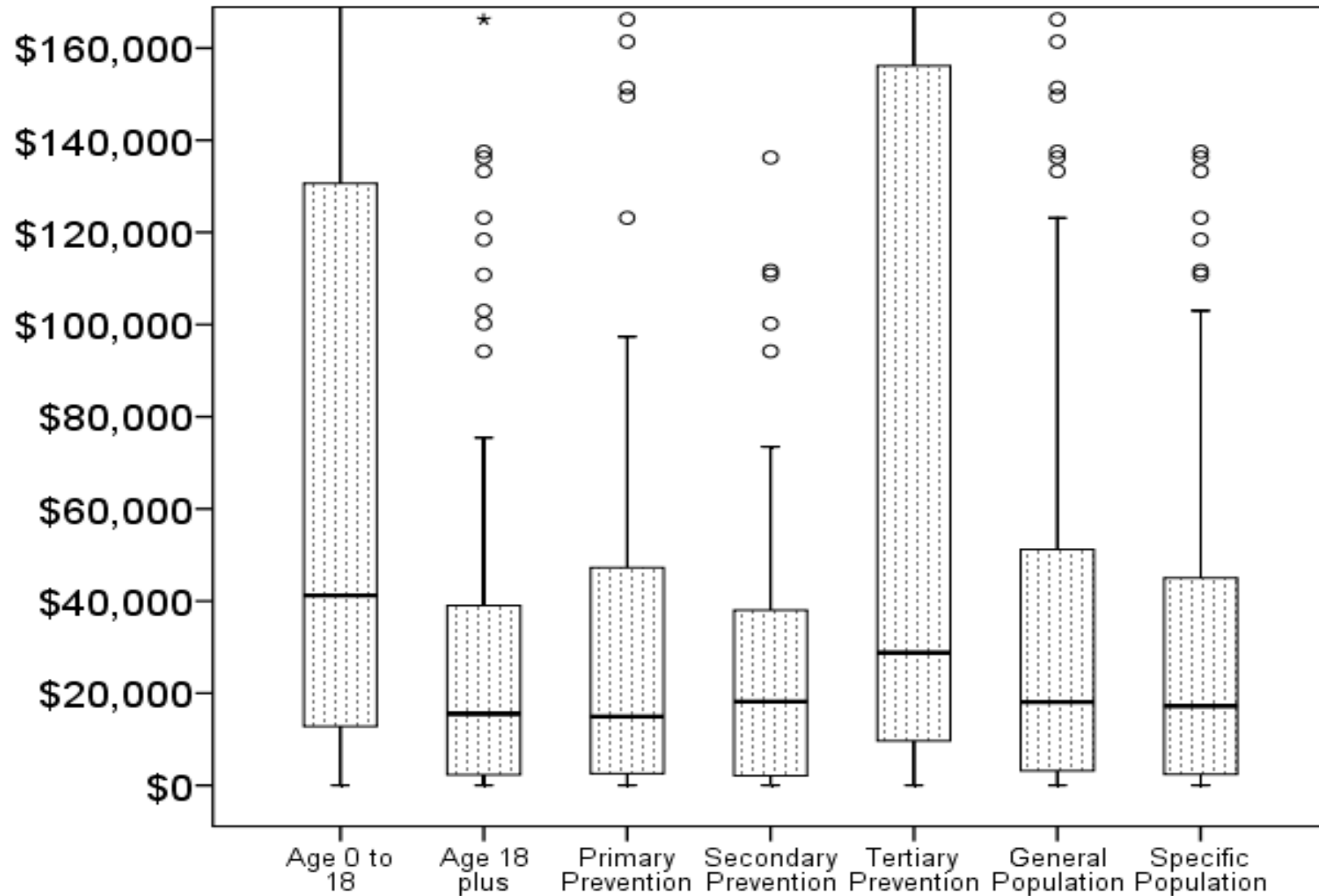
Does **not determine its effectiveness or cost-effectiveness.**



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\$/QALY by Target : 250 interventions

(Dalziel et al *Resource Allocation & Cost-Effectiveness*, 2008)



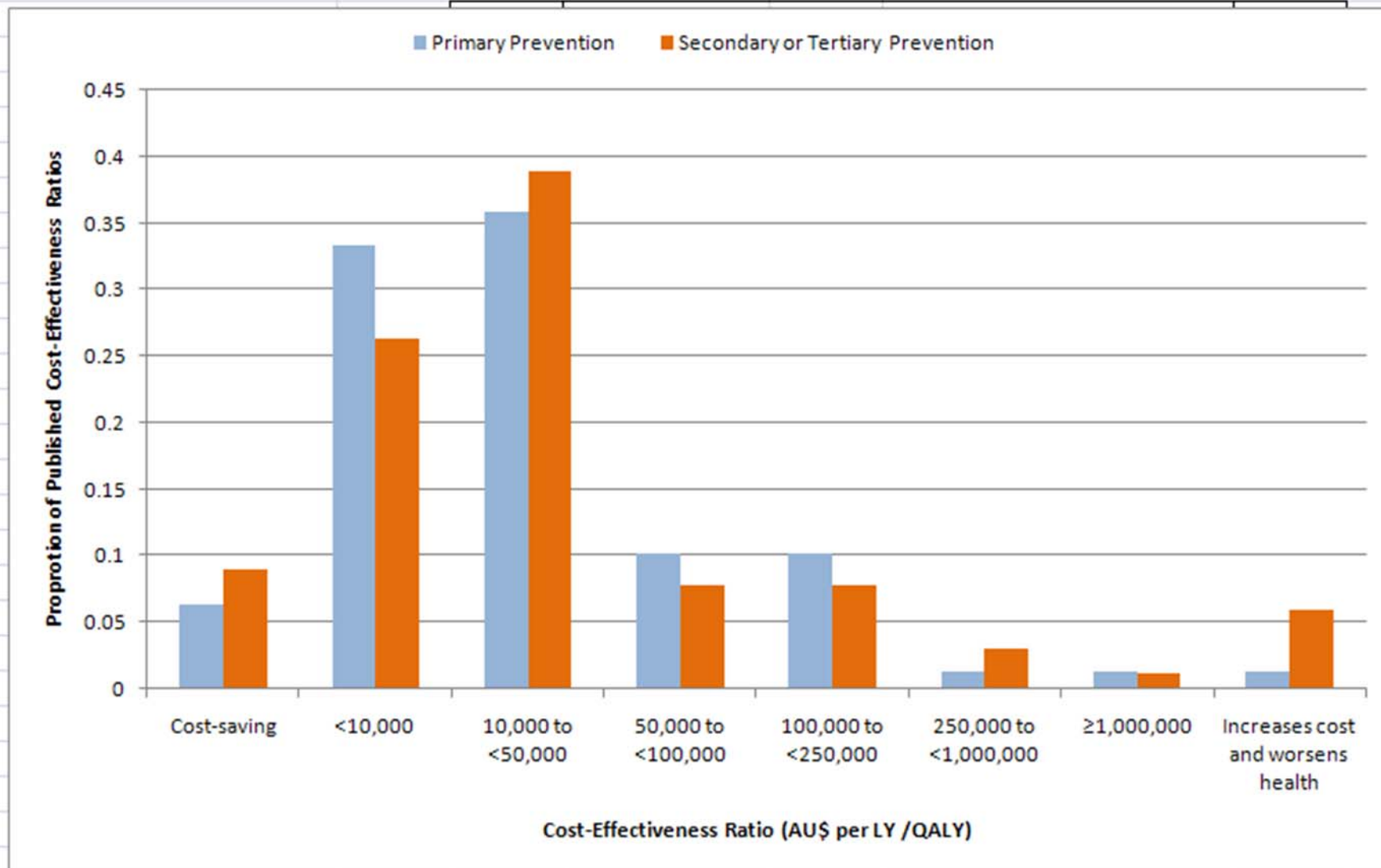


E & C-E for Life style programs - Eggs

JniSA		+QALY/hd	~\$/QALY
*Nutrition:	Population fruit/veg	0.005	<\$100 - D
	Mediterranean diet post AMI	1.44	<\$500
*Obesity prevn	School-based	0.001–.002	\$40,000 -D
*Alcohol abuse	CBT or brief GP advice	0.1 - 0.3	\$1-2,000
	increase price of alcohol	high?	cost saving
*Quit smoking	GP advice	0.002-.003	\$5-11,000
	Mass media smoking	<0.001	<\$100-D
*Physical activity	Active script	0.014	\$29,000
	Other general cardio fitness	0.0002	>\$500,000
Child abuse prevn	Some nurse visiting		cost saving
	PPCN/PACT Intensive counselling for very disturbed children	>3.0?	cost saving

*Segal, Dalziel, Mortimer 2006 CHE Monash University

A\$/QALY primary prevention vs all else – Australian C-E studies





Will prevention reduce costs?

Some preventive interventions are cost saving (downstream cost savings > initial investment); but **NOT** many

Other interventions can be cost saving – eg by replacing a more expensive intervention (+ at least equal outcomes)

Even if downstream cost savings

- current budget implications → need to find resources today
- Budget savings rarely eventuate: resources often reallocated to other health problem (but → extra benefits).

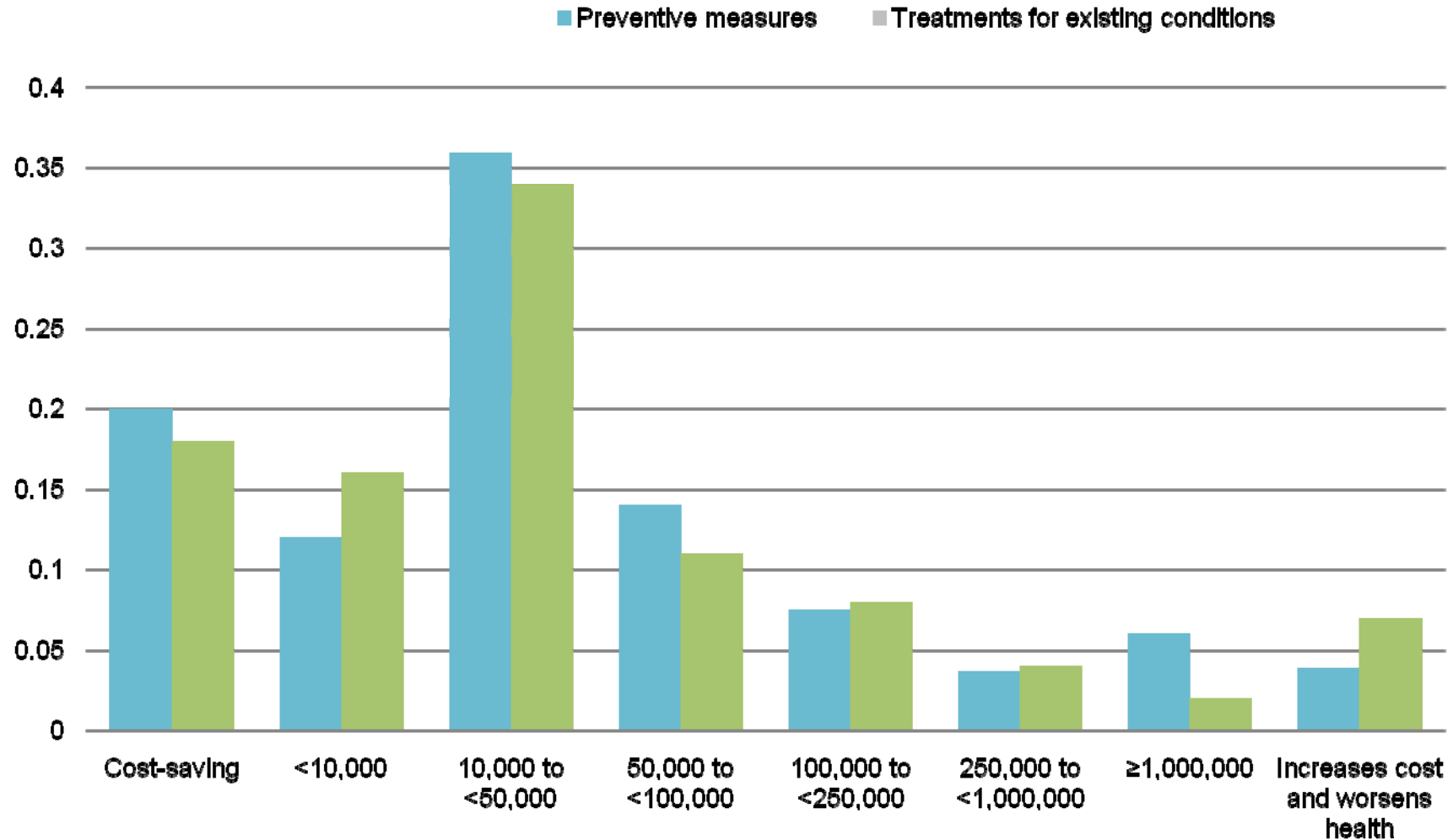
Can't rely on prevention to 'save the health system'

Rather extra spending on prevention may **increase** costs with limited health benefits **if** poorly directed



Will prevention reduce costs?

C-E ratio US\$/QALY Cohen et al 2008 *NEJM* Feb 14



Will prevention reduce costs?

Types of interventions likely to be cost saving:

- High downstream costs if not addressed
- Low cost of intervention eg use of regulation
- Large effect

Examples:

- Child protection – some programs
- Youth interventions - some
- Vaccination – eg for prevalent condition
- Public health interventions – clean water, sewerage, drainage, food protection
- Alcohol pricing
- Quit-smoking ?? ▪ Prevention of obesity **No**
- Better chronic disease management ???



Will investment in Primary & Community Care reduce costs

Evidence related to investment in primary care and chronic disease management MIXED

Australian coordinated care trials Findings

↑ \$ primary & 2ndry care ↓ \$ acute care? Net cost ↑
Better outcomes?

Care coordination/case management: mixed

Mental health – better outcomes but ↑ cost of care

Frail elderly better outcomes but ↑ cost of care

Aus Hospital Demand Management/US managed care

Diabetes, CHF, COPD most ↑ outcomes some ↓ cost of care

Frail elderly, mental health ↑ outcomes most ↑ cost of care



Will investment in Primary & Community Care reduce costs

Better quality RCTs – generally +ve health effect but not necessarily cost saving

Veterans Health Administration USA

Increase primary care + better outcomes + reduced health care costs (Kizer et al *Medical Care* 2000; 38 QUERI suppl I7-I16)

UK PFP

Increase primary care costs (~+20%), better clinical outcomes, impact on net costs & health not reported

NT

Katherine west CCT – better outcomes + higher cost

EHSDI (new)



Does it matter if primary care reduces costs? Will health care become unaffordable?

Impact of ageing population?

- Relation is b/w health status & **time before death**

In 2006-07

- Aust spent 9.0% of GDP on health = 16th in OECD
- Aust Govt share 6th lowest in the OECD at 68%

By 2032-3 estimated that health = 10.8% of GDP

< USA, Switzerland or France *Vos et al Projections of health care expenditure by disease for Aust. to 2033, AIHW 2008*

Real issues:

- fiscal imbalance b/w Australian Govt & the States – new agreement might help address this
- Inefficiency/distortions of funding & delivery arrangements



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To answer the Q of How to intervene need to understand Why

Why not let people make their own choices?

Because: the physical environment, the economy, cultural norms, the way we find and deliver and pay for health care don't support healthy choices, don't support optimal allocation of resources

- Market & policy failure distort consumer & producer/provider decisions
- Equity is important

Why Intervene?

Market will **only** maximise societal wellbeing thru self-interested behaviours, if certain conditions apply; such as

1. Citizens have perfect information + can give effect to their well informed preferences
2. Providers respond to consumer preferences
3. No monopoly power
4. No externalities – Benefits/costs fully captured (born) by consumers & producers, no +ve or –ve spillovers
5. Public goods attributes don't apply - citizens can be efficiently excluded from consumption
6. Citizens don't care about the welfare of others



Market failure in Health care & Prevention is pervasive

Citizens have imperfect information

- Relationship b/w behaviours & health complex
- subject to 'mis-information' via advertising

Trial & error not OK for learning

- Consider addictive substances; impact of poor choice

Action:

Ensure citizens well informed; Eg via

- Promotion of (health) literacy
- *Social marketing* campaigns
- *Regulations* to ↓ misinformation/persuasion to adopt harmful behaviours

Examples

Individuals do not bear full cost of smoking or binge drinking

- Large impact on families & wider society (55% of children entering care involve alcohol use by the parent)
- Providers not bear full costs of supply of alcohol – eg social harms, policing, loss of production

Action: Adjust signals via pricing, regulations, direct provision to make

- more expensive/less accessible where –ve externalities (eg alcohol, tobacco products, unhealthy foods, car use),
- make cheaper/more accessible for +ve externalities (eg healthy food choices, physical activity, active transport)



Market failure **Public goods**

- **Can't restrict use or inefficient to do so → supply will be inadequate**

Eg access to clean water, food safety/food labelling, social marketing, public recreational space, bike lanes, swimming pools, nutrient quality of foods

Action: Government provide/fund/regulate public goods

- Food quality/food supply, food safety, food labelling
- Public open space/recreational opportunities



Market Failure **Merit Goods/Social responsibility (caring externality)**

We care about poor choices especially for others:

- decisions/behaviours of parents for their children; eg concern with drug/alcohol use in pregnancy, early life
- childhood obesity

Action: protect children and others from poor choices – rather than exploit ‘weakness’ – which industry will do in pursuit of profit.

Market Failure **Equity**

Australians care about distribution of health and access to health care. But

- Market solution → sick can't afford health care
- Can't achieve equity through income transfers

'Avoidable' health inequity well documented

Access to services to address/prevent chronic diseases not equitably distributed

Smoking and effects of alcohol abuse considerably higher in lowest SES



Actions to address inequities in Health

- Support universal access/universal health insurance
- Target preventive interventions to persons in poorest health
- Address inequalities in access to health care
- Regional distribution of health and minimum co-payments
- Ensure health literacy
- Support Access to the components of a healthy life for all:
 - ❖ nutritious food, food preparation skills, access to clean water, safe space for physical activity, secure housing, gainful employment, income, education etc.
- Support community driven/community development actions

Policy failure

BUT governments in seeking to address market failure

➤ Create other distortions = Policy failure

This constitutes a third rationale for governments to intervene

- predominantly at the health system level

Policy failure in health/health care

1. Split funding w/o accountability
 - cost & blame shifting
2. Silo-based funding
 - Limits resource shifts between programs
3. Lack of coordination across agencies, portfolios
4. Workforce - not matched to health needs, inflexible (proscribed professional roles)
5. Policies contradict equity objectives
 - Eg support for PHI

6. Discriminatory funding + FFS

- open-ended vs capped
- defined funding mechanism vs ad hoc processes

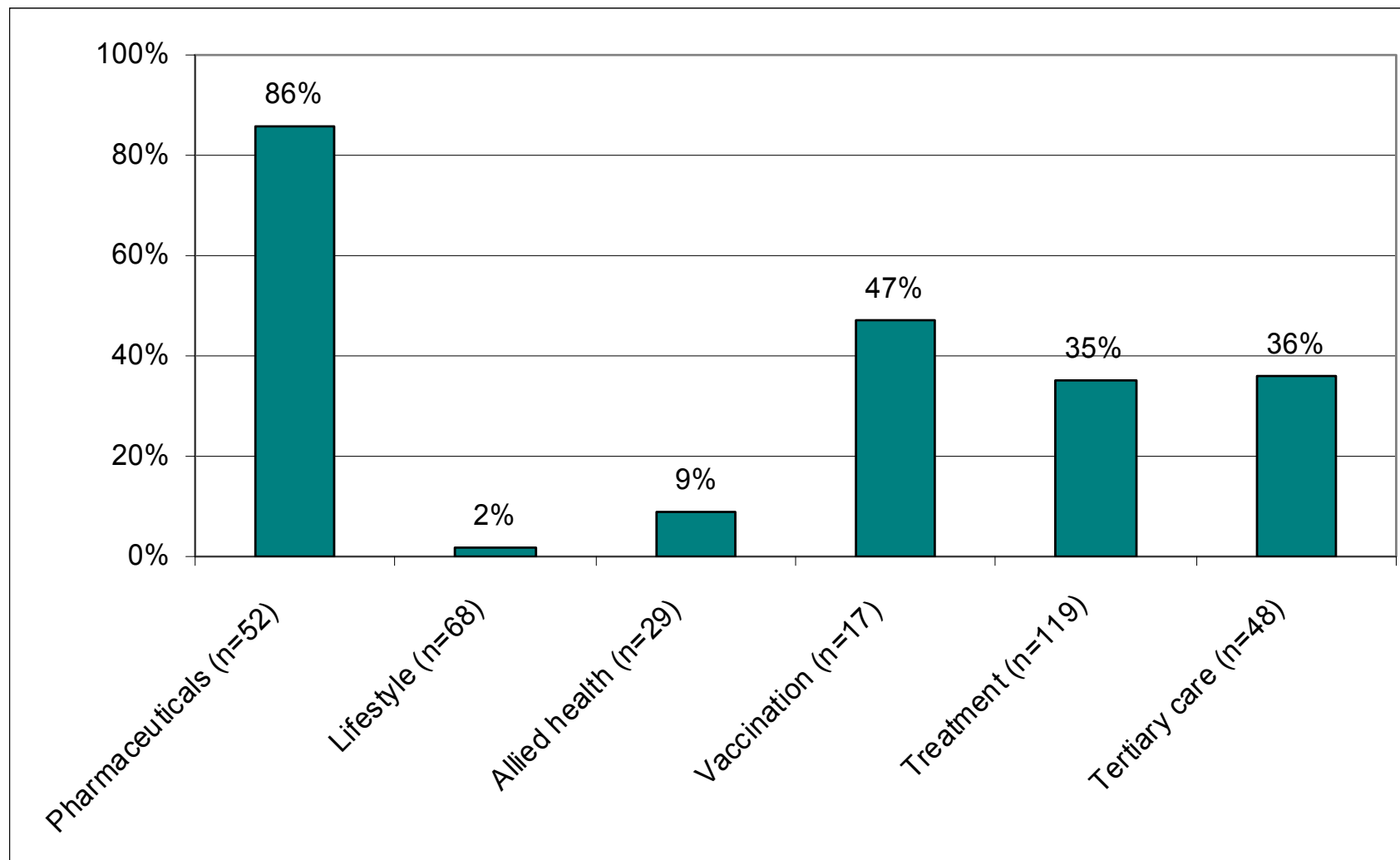
Favours

- medical care & pharmaco-therapies
- general practice setting and GPs
- particular delivery modes (1:1, face to face)

Bias against

- Community-based
- family focus
- out reach
- web/email/phone
- allied health
- lifestyle
- multi-disciplinary
- X-sectoral

Likelihood of Govt. funding to meet ALL clinical need (Segal et al *Health Economics* 2010)





Available Mechanisms to address market failure

Taxation/pricing/subsidies

Regulation and enforcement

Direct program delivery/funding

Cross-sector collaboration

Policies to support community initiatives

- Local community
- School
- Work places, etc.



Actions to address Policy Failure

Health system reform designed to:

- Create a level playing field:
 - across modalities, settings, stage of disease
- Accountability and quality assurance
- Reduce cost shifting
- Achieve coordinated, LT, holistic
- Remove support for PHI



Actions to address Policy Failure

Health system reform designed to:

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How develop a prevention strategy

Select initiatives/interventions that

- 1. Address market failure – ie support the market to work better provide correct signals**
- 2. Promote Equity**
- 3. Address Policy failure**
- 4. Are highly C-E**



Some key NPHT Priorities for Action



To efficiently Address market & policy failure

- **Alcohol**
- **Tobacco**
- **Obesity**
- **Infrastructure**



- Enforce/support responsible drinking regulations
- Apply alcohol minimum price & volume based tax
- Strengthen and support primary health care to address alcohol dependence.

Work with local communities to implement programs and build the evidence base to change the drinking culture eg regarding

- under-age drinking
- drinking to get drunk
- recognise impact on friends, family others



- Increase price of cigarettes.
- Further regulate supply of tobacco products and exposure to tobacco smoke.
- Increase the frequency, reach and intensity of public education campaigns.
- Ensure all smokers in contact with health services are given encouragement and support to quit.
- Target smoking in pregnant women.
- Ensure access to information & treatment services to assist people in highly disadvantaged groups to quit.



- Protect children and others from inappropriate marketing of unhealthy foods and beverages.
- Improve public education and information.
- Reshape urban environments towards healthy options
- Support primary health care to support people in making healthy choices.
- Improve Maternal & Child Health to support breast feeding etc.
- Support local initiatives to close the gap for disadvantaged communities.
- Build the evidence base, monitor and evaluate effectiveness



- 1. Create new prevention agency**
- 2. Ensure well trained preventive health workforce – funded positions, community-based clinical placements**
- 3. Consider scope of practice - role for ‘new occupations**
- 4. Reform primary care**
 - Adopt primary care model to promote efficiency & equity & ‘best’ preventive interventions**
 - Support health services & health workforce planning**



Characteristics of optimal Primary & Community care model

Based on international literature and practice

- 1. Single fund holding thru regional primary & community care organisation**
- 2. Fund a/c needs adjusted capitation**
- 3. Funder has policy role incl. accountability of primary & community care organisation**
- 4. Promote Quality driven care e.g. thru:**
 - high quality IT decision support systems
 - quality assurance and accountability mechanisms
 - enrolled patient population
 - single/shared electronic record

Characteristics of optimal primary & community care Model

5. Pay clinicians by capitated fee, salary, PFP **not FFS** for more flexible and responsive system
6. Promote multi-disciplinary team care – not always GP lead
7. Fund community-based drug & alcohol & mental health services
8. Promote innovation in
 - service delivery models (eg email, phone, IT-based)
 - service components
 - service attributes – to enhance cultural relevance and promote access



Optimal Primary & Community Care Model

- 10. Facilitate Community control/involvement**
- 11. Support Active community outreach**
- 12. Facilitate Combined Primary and Community Health and Human Services Planning**
- 13. Support evidence-based Health workforce planning**



Optimal Primary & Community Care Model – Australia - Northern Territory ?

Katherine West Health Service – Evolved

- thru CCT then PHCAP + other initiatives → ↑ funds

Key Components of Model

- Single fundholder for primary care – needs adjusted capitation
- Local Katherine West Health Board Aboriginal Corporation
- All persons in region covered/enrolled
- Strong quality assurance focus
- Clinician leadership
- Combine salaried and FFS payment of providers etc.

Being extended across NT via EHSDI (Extended Health Service Delivery Initiative)

KWHB: Resulting Service Elements

Strong focus on community programs

- not just individual care
- high preventive focus

A nutrition program to improve nutrition status of the community; via food supply, education, work with store managers, health centres, crèches/schools, vulnerable groups (eg women of child bearing)

Maternal Health Coordinator – focus on community engagement, via women’s centres, crèches etc.

KWHB: Key service elements

- **Environmental Health Program** - eg covering insect control, water, waste management, health, education, housing etc.
- **Child health Program** – preventive health checks (monitor growth, ear, skin check, immunisation, parent information/education) for all children 0-5; Liaise with clinical teams, maternal health coordinator etc.
- **Chronic disease program** supported by multi-disciplinary team care – not just medical
- **Quality Focus**

KWHB: Quality Focus

Especially chronic disease management

Comprehensive clinical governance system

- All community 'enrolled'
- Electronic health record (share patient data)
- Decision support, including patient recall
- Dedicated quality manager – promote accountability via peer review etc.
- Quality use of medicines program
- Critical incident reporting
- Participate in Australian Primary Care Collaboratives (APCC) 2005→

KWHB: Outcomes?

Implementation feasible - takes time +

- Large investment in capacity of Community controlled health Board members
- **High level & dedicated Clinical leadership**
- Extra funds (through CCT & PHCAP)

Formal evaluation yet to be completed

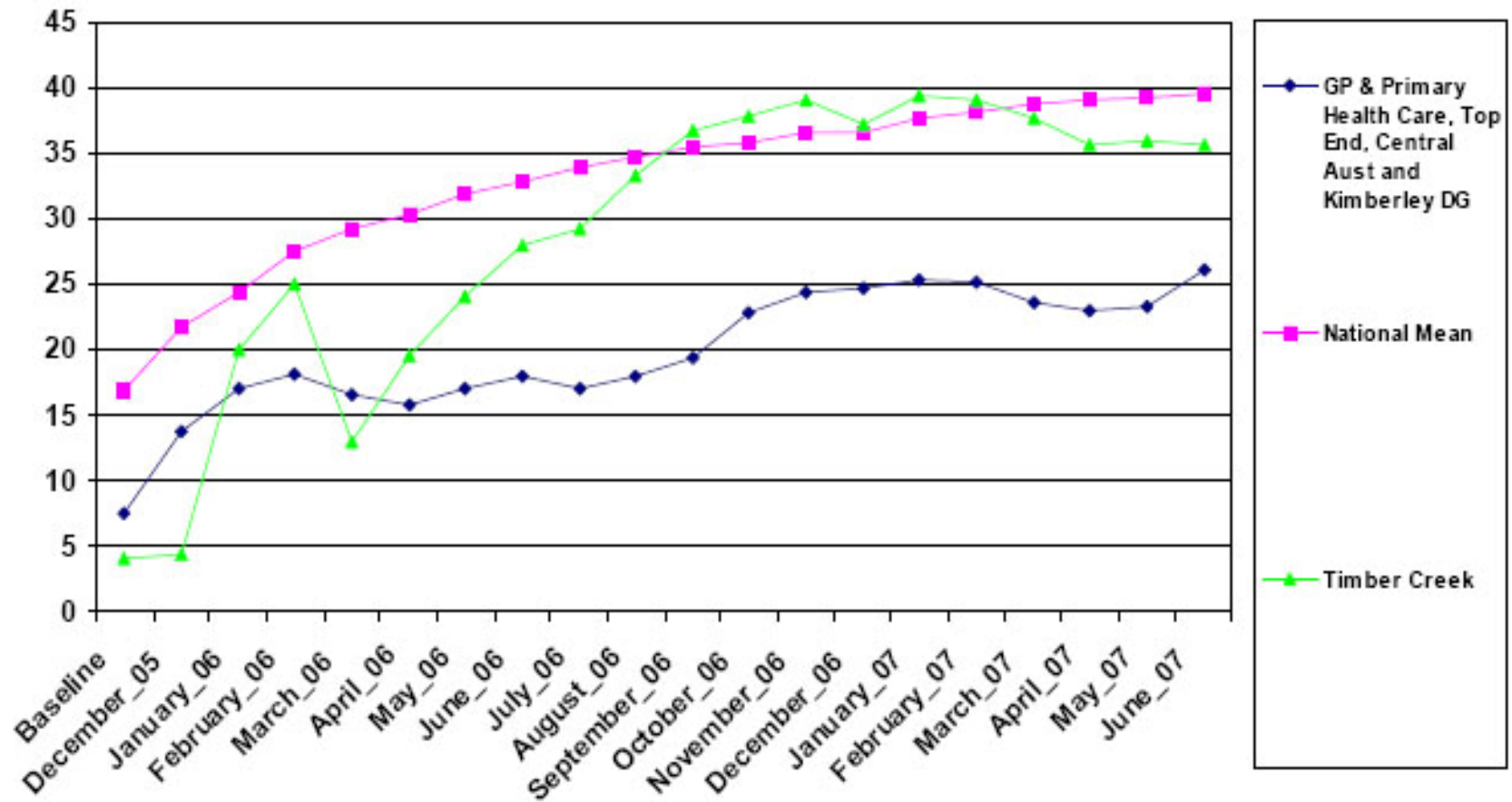
- Considerable shift in pattern of services towards community-based preventive care

Partial Results

- for Timber Creek site of APCC

Source – Presentation Dr Andrew Bell to Chronic Disease forum on Remote communities (Broken Hill, May 2008) + direct communication

Timber Creek
Percentage of Patients with Diabetes with HbA1c \leq 7%
Practice vs. Divisional and National Mean Trends - Wave 2





Veterans Health Admin USA

Regional health care delivery (VISNS)

Needs adjusted Capitation funding

Focus on Primary Care

- all Vets to have a primary care physician
- new ambulatory care centres + drug & alcohol centres

Quality assurance + accountability mechanisms

- Benchmarks - chronic disease, prevention, palliative care
- Enrolled population
- Single shared electronic record

Quality enhancement initiative (across 8 chronic health problems) inform research agenda

Outcomes: Better health, Lower costs, greater access

Performance of Australian primary care initiatives in last decade

- Divisions of GP – Australian General Practice Network
- Changes to the Medicare schedule eg care planning, health checks, PIP & SIP payments
- New items for allied health
- Large ↑ funds to primary and community care
What has this achieved?

Education & Training/new primary care roles

- Effect of the large increase in and some change in composition of primary care workforce
- Effect of alternative education models – opportunity for trans-professional training
- Effectiveness of and impediments to practice nurse role
- Effectiveness of Continuing Medical education

How to achieve integration

- of health services
- of health and human services (note Kimberly initiative)

How support evidence-based policies

- Including innovation and ‘mainstream’ successful initiatives

Key Challenges

1. Effective reform requires a set of **mutually reinforcing** policies
 - if some elements not incorporated; eg if FFS retained or accountability ignored entire model can be undermined
2. How set up sound evaluation design – research in the primary care setting difficult
3. Major political/vested interests to contend with

Research opportunities?

- NHMRC - partnerships
- ARC - Linkage
- Government health reform with its focus on primary care
Innovative service options to evaluate e.g. GP+ centres etc.

Comment re 'feasibility'

Any strategy will benefit some but 'harm' others

Always pressures by vested interests to influence reform

Need:

- **High quality research underpinning health reform agenda**
- **Commitment to implementing change in the public interest**

And If society chooses to support some professions/ industries this should be done via transparent policies – not by risking the health of citizens



Thank You

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