

Heart Health Check and Early Detection

Dr Kegan Moneghetti MBBS (hons) FRACP FCSANZ PhD

Clinical Associated Professor, University of Melbourne

Group Leader and Head and Cardiovascular Clinical Services, Baker Heart and Diabetes Institute

Deputy Director of Cardiology, St Vincent's Hospital Melbourne



Outline

Cardiovascular Disease in Australia

What is a Heart Health Check?

Early Detection and Lifestyle Modification

Secondary Prevention

How Consumers Shape Research?



Cardiovascular Disease in Australia

1.4 million Australians have a high chance of having a heart attack or stroke in the next 5 years

Cardiovascular disease is the main contributor to health care expenditure and with an aging population the burden of disease is expected to increase



Cardiovascular Disease in Australia

2 in 3 Australians have at least one heart risk factor

Most risk factors are silent though if known **are modifiable**



Cardiovascular Disease in Australia

Figure 1: Health care expenditure on selected cardiovascular conditions, 2020-21

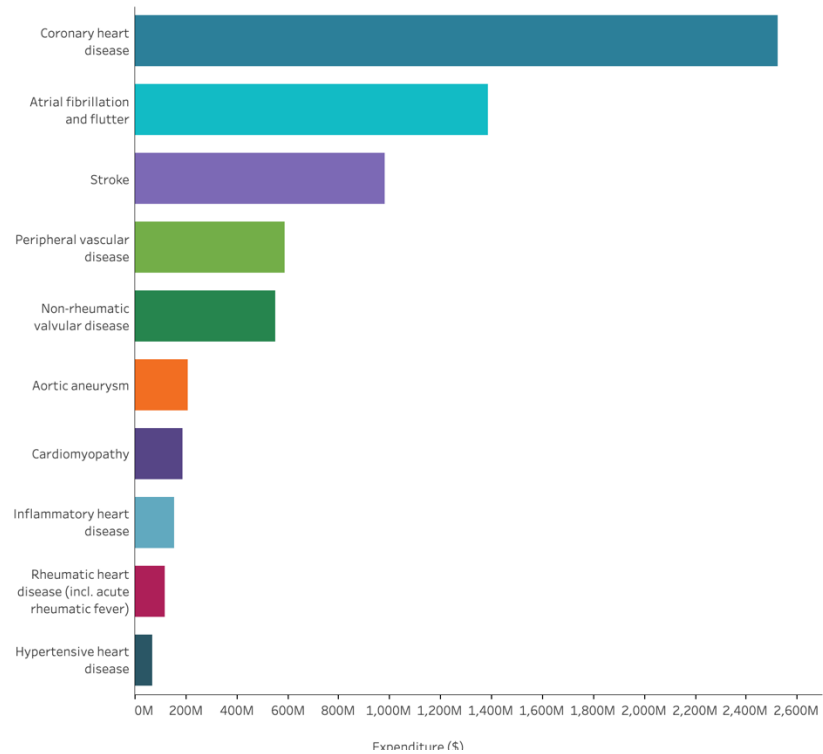
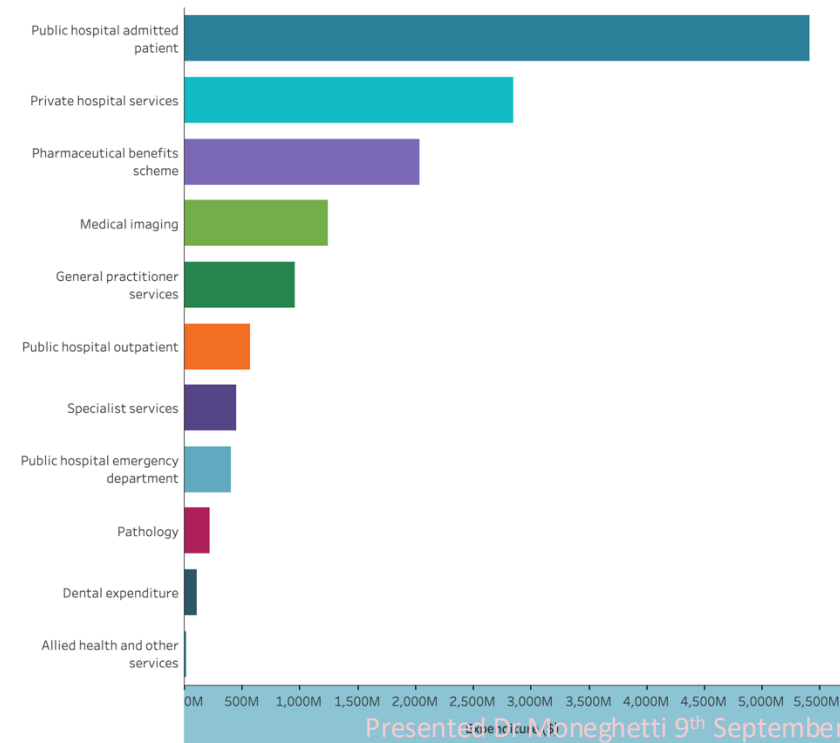
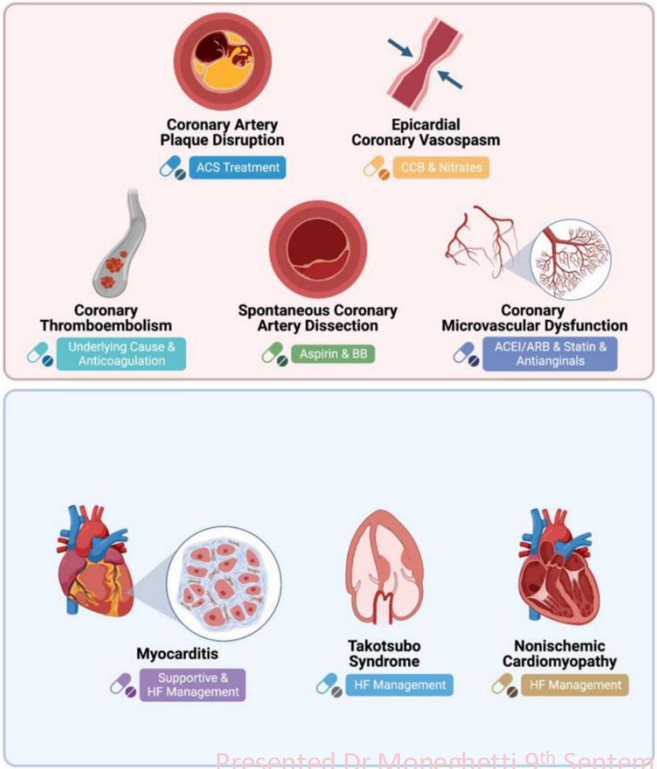
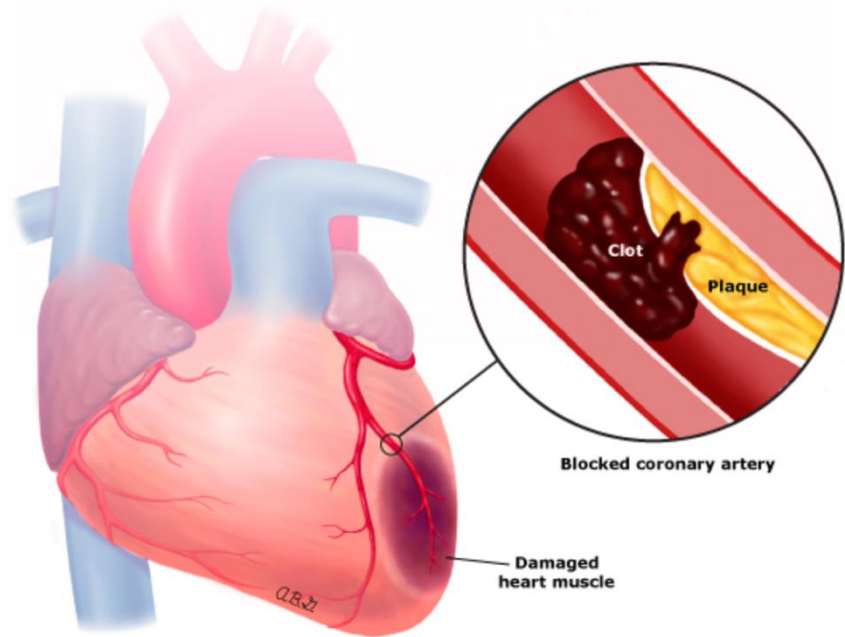


Figure 2: Health care expenditure on cardiovascular disease, by area of expenditure, 2020-21



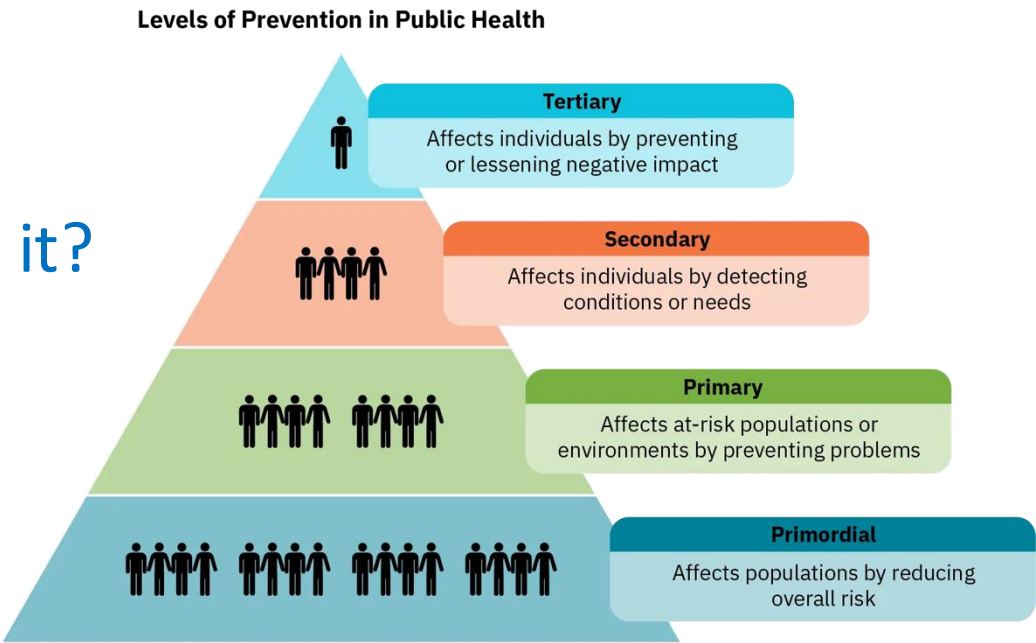
Cardiovascular Disease in Australia

The landscape is becoming more complicated



Cardiovascular Disease in Australia

What can we do about it?



Cardiovascular Disease in Australia

Primordial

Reduce overall risk

Example: Daily school PE and active transport programs

Primary

Prevent disease in at-risk individuals

Example: Walking and resistance training for people with metabolic syndrome.

Secondary

Slow early CAD progression

Example: Monitored aerobic training improves fitness and delays progression.

Tertiary

Lessen impact of established CAD

Example: Hospital-based rehab to improve quality of life




What is a Health Heart Check


Free Medicare check: 45+ (30+ Aboriginal & Torres Strait Islander)

Done by GP/nurse, includes history, BP, cholesterol, diabetes screen, weight, lifestyle

Produces 5-year risk score of heart attack or stroke

Heart Health
Check Toolkit



Heart
Foundation

My healthy heart management plan

Date: ____ / ____ / ____

Name: _____ DOB: ____ / ____ / ____

My risk of having a heart attack or stroke is ____ %

☐ LOW RISK < 5%
Less than 5 in 100 people like you,
chance of having a heart attack or

☐ INTERMEDIATE RISK 5 to < 10%
Between 5 to 10 people in 100 like
you, chance of having a heart

☐ HIGH RISK ≥ 10%
At least 10 or more people out of 100
like you, chance of having a heart



What is a Health Heart Check?

Australian CVD risk calculator

AusCVDRisk is a risk assessment, communication and management tool for health professionals. To learn more about how this calculator works, refer to the Australian Guideline for assessing and managing cardiovascular disease risk.



This risk assessment is recommended for the following individuals without known atherosclerotic cardiovascular disease:

- All people aged 45-79 years
- People with diabetes aged 35-79 years
- First Nations people aged 30-79 years (assess individual risk factors 18-29 years).

Clinically determined high risk*

Clinical conditions that automatically confer high risk. If either of these apply, you will be redirected to management for high risk category

☐ Moderate-severe chronic kidney disease ?

☐ Familial hypercholesterolaemia ?

☐ Neither present

Age* ?

Enter age 30-79

Years

Sex at birth* ?

☐ Female

☐ Male

Smoking status*

☐ Never smoked

☐ Previously smoked

☐ Currently smokes

Systolic blood pressure* ?

SBP

mmHg

Ratio of total cholesterol to HDL cholesterol* ?

Ratio of total cholesterol to HDL cholesterol

OR enter mmol/L



What is a Health Heart Check?

✓ Enter variables

2 Consider reclassification factors

3 Discuss risk result & management

8%

Intermediate risk

0%5%10%15%

Low RiskIntermediate RiskHigh Risk

Consider reclassifying down a category if ?

Coronary artery calcium score of 0 ?

East Asian ethnicity (Chinese, Japanese, Korean, Taiwanese, or Mongolian ethnicities) ?

Consider reclassifying up a category if ?

Coronary artery calcium score > 99 units, or ≥ 75th percentile for age and sex ?

First Nations people ?

Māori, Pacific Islander or South Asian ethnicity (Indian, Pakistani, Bangladeshi, Sri Lankan, Nepali, Bhutanese or Maldivian ethnicities) ?

Family history of premature CVD ?

Chronic kidney disease ?

People living with severe mental illness ?

Select to proceed to the results page

Reclassify down to low risk

Continue without reclassifying

Reclassify up to high risk

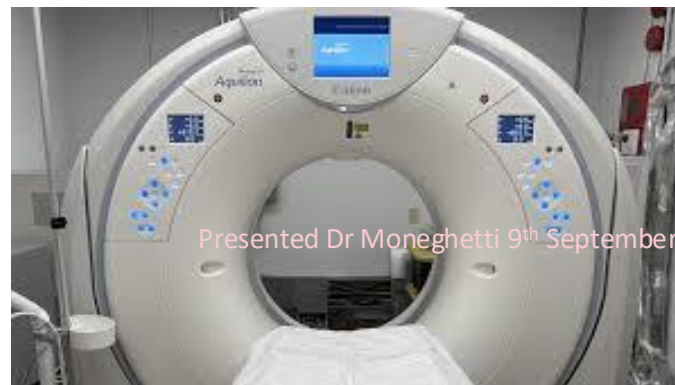


Other Tools – Calcium Score

Provides direct visualization of coronary atherosclerosis, refining ASCVD risk beyond traditional calculators.

A CAC score of 0 reclassifies many patients to lower risk; higher scores strongly predict future coronary events.

Recommended in intermediate-risk patients to guide statin initiation and intensity.

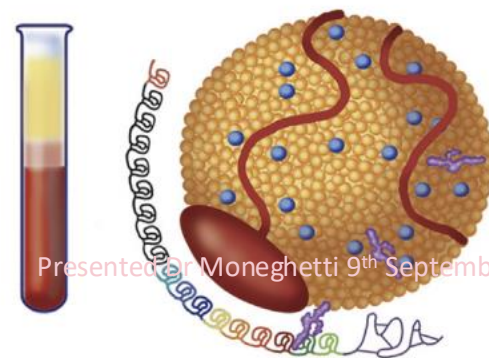


Other Tools – Lipoprotein (a)

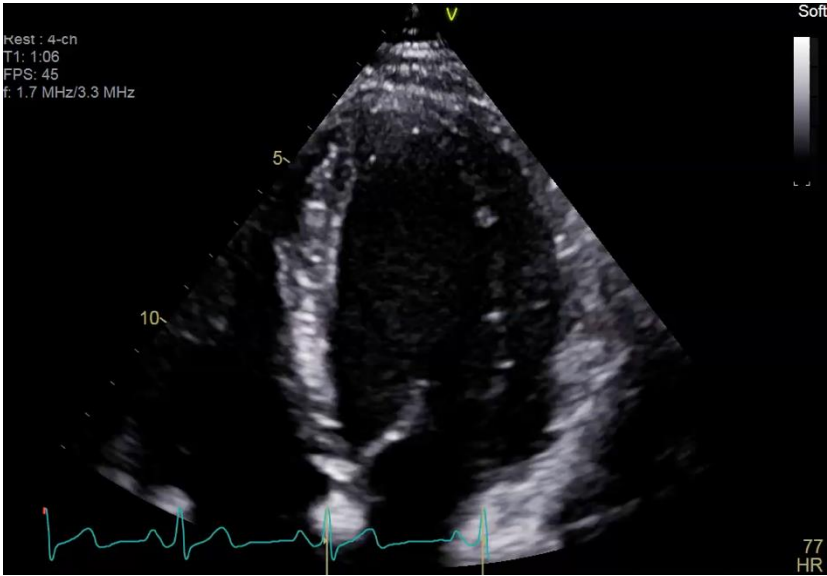
Genetically determined, stable throughout life, and an independent causal risk factor for ASCVD

Elevated levels contribute to residual cardiovascular risk even when LDL-C is well controlled

Measurement is increasingly recommended at least once in a lifetime to identify high-risk individuals



Secondary Prevention



Challenges in Secondary/Tertiary Prevention

Australian data suggests **only between 30-46% of ACS patients are referred** to cardiac rehabilitation¹

Previous data has suggested even when patients were referred to cardiac rehabilitation, **only half completed the program.**



Challenges in Secondary/Tertiary Prevention

Reinforcing, reminding and encouraging cardiac rehabilitation referral

More likely to participate:¹

Males

Electronic referral to CR

High school or higher education

Ejection fraction >50%

Strong physician recommendation

Barriers: ¹

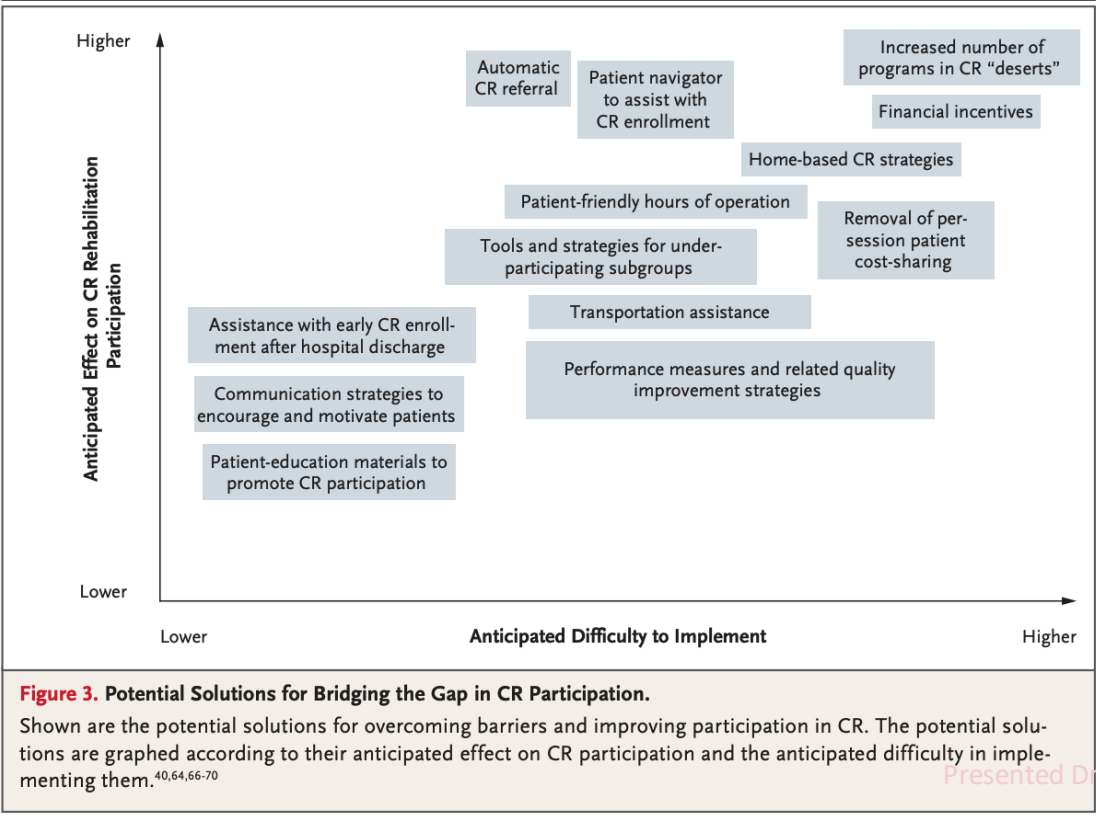
Lack of interest

Transportation issues

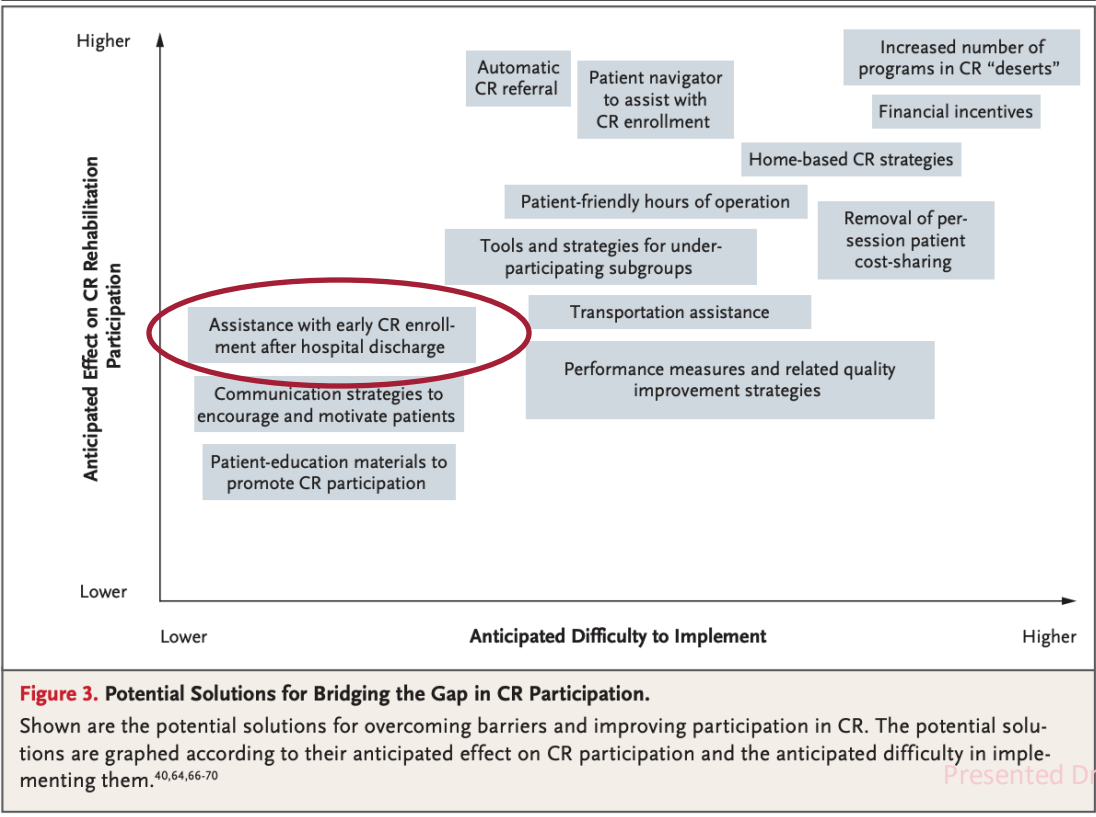
No referral/recommendation by physician



Challenges in Secondary/Tertiary Prevention



Challenges in Secondary/Tertiary Prevention



How Consumers Shape Research?

Identify priorities: what matters most to patients

Shape study design: outcomes relevant to daily life

Help recruit participants

Disseminate results to community



Thank you for your contribution

Education & awareness

Peer support & advocacy

Community engagement



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