

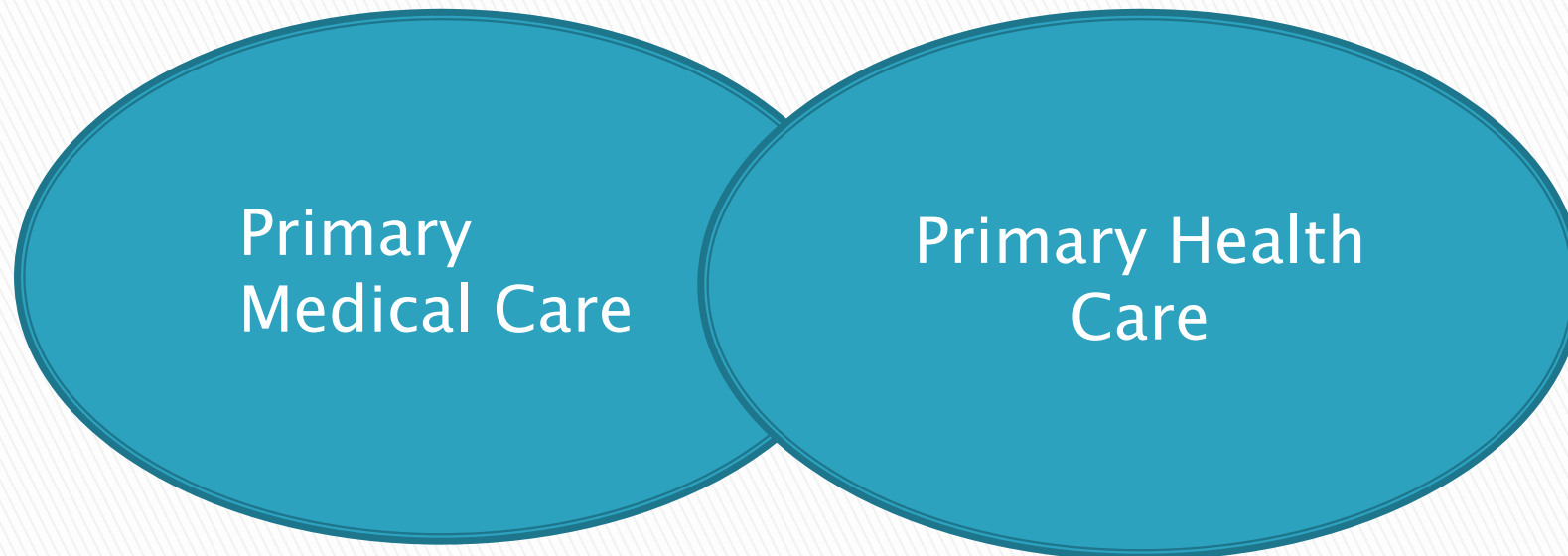
# HTA and the sustainability of primary care in the 21 st century.

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HYGIENE  
& TROPICAL  
MEDICINE

# Primary Health Care / Primary Medical Care

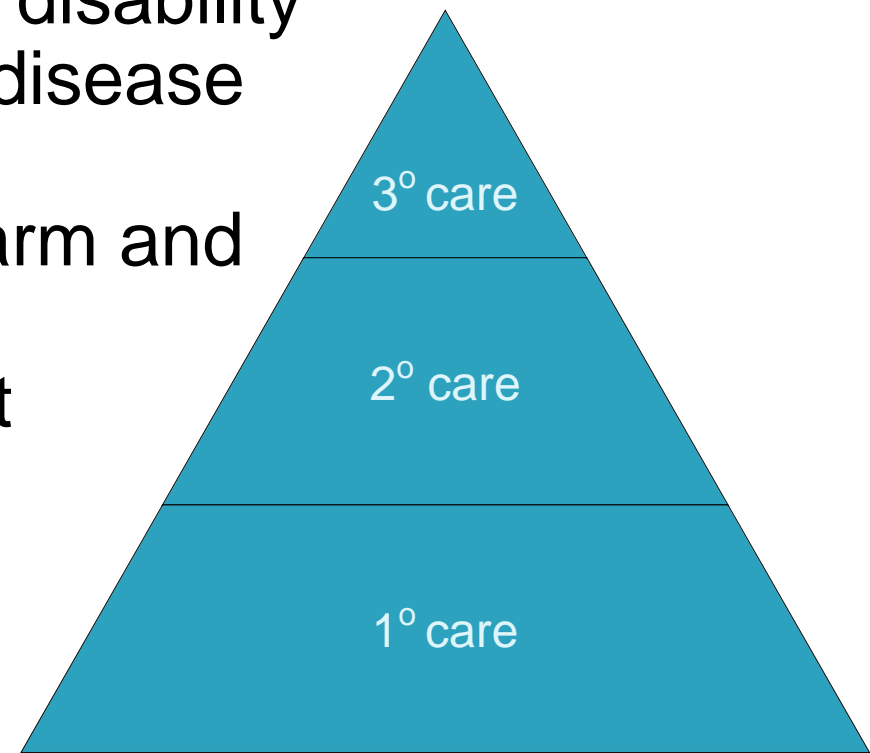


First contact, comprehensive, integrated, life cycle, personal, team based gatekeeper?

Participatory, equitable, intersectoral, appropriate, affordable, self reliance, community health workers

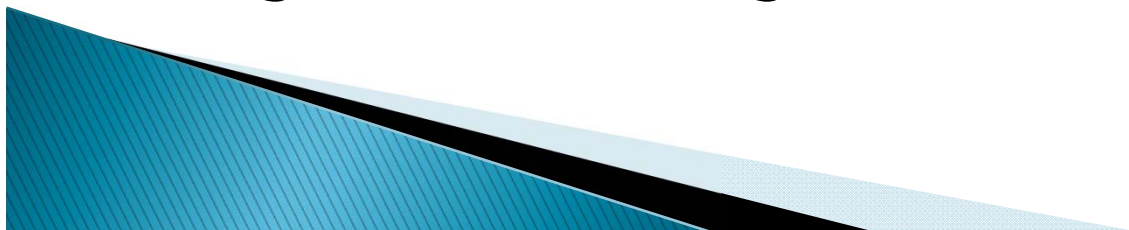
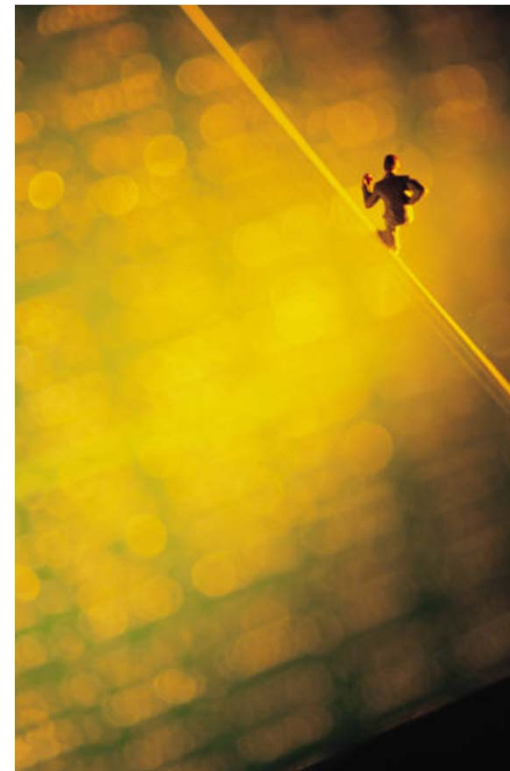
# Primary Care influences the whole health system

- ▶ ~90 % patient contacts in primary care
- ▶ Prevention of disease and disability
- ▶ Early detection and Rx of disease
- ▶ Appropriate referrals
- ▶ Avoidance of iatrogenic harm and over-medicalisation
- ▶ The patient in their context
- ▶ Continuity of care



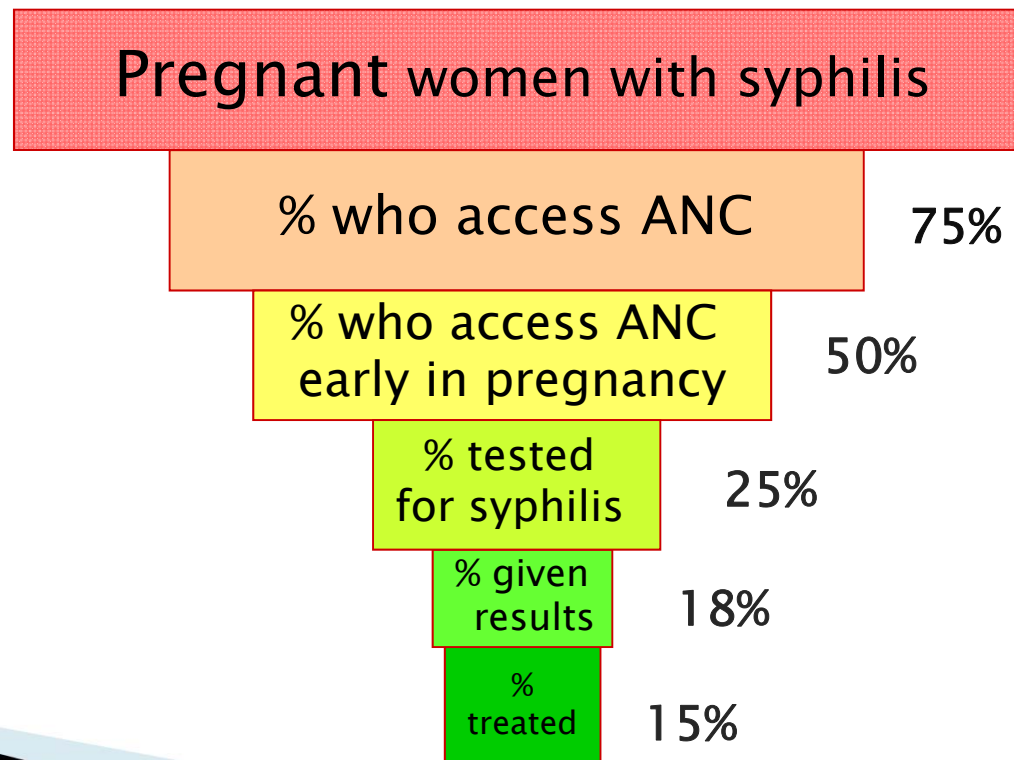
# Challenges to sustainability

- ▶ Financial constraints
- ▶ Human resource constraints– *critical shortage of 2.4 million health service providers*
- ▶ Changing patterns of disease
- ▶ Demographic change
- ▶ Growing expectations
- ▶ Environmental threats e.g. climate change



# Preventing newborn deaths and stillbirths due to syphilis

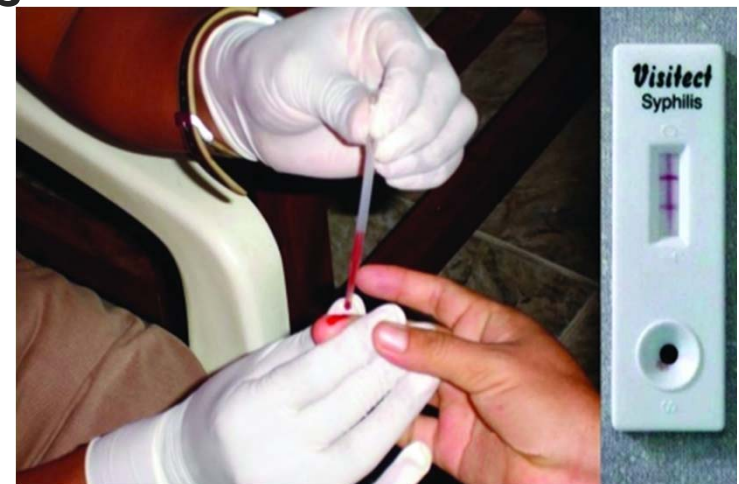
- ▶ ~2 million pregnant women infected annually
- ▶ Over 50 % have adverse pregnancy outcomes
- ▶ Nearly 500,000 perinatal deaths p.a. in Africa alone



# Cost-effectiveness of Antenatal Screening Using Point-of-Care Syphilis Tests: Mwanza, Tanzania

Vickerman et al STI 2006;82:Suppl V

- ▶ Point-of-Care tests do not require lab facilities
- ▶ PoC tests save more lives but need to be < US\$ 0.63 to be as cost-effective as RPR tests
- ▶ But cost-effectiveness of RPR decreases if women do not return for their test results
- ▶ Point –of Care tests and same day Rx best for many resource limited settings




# Malaria Rapid Diagnostic Tests

- ▶ Artemisinin Combination therapy effective but relatively expensive
- ▶ Use of RDTs improves targeting of anti-malarial therapy – e.g. 38 % fall in use in PHC in Uganda (Kyabayinze et al,2010)
- ▶ But around 30 % patients with negative tests receive anti-malarials
- ▶ Effective behaviour change strategies needed



# Which child health interventions can be delivered in community settings?

Haines, Sanders et al, Lancet, 2007, 369, 2121–2131

- ▶ Interventions to promote healthy behaviours e.g. exclusive breast feeding
  - ▶ Preventive interventions e.g. insecticide-treated nets for malaria and micronutrients
  - ▶ Treatment interventions e.g. for childhood illnesses such as malaria, pneumonia and neonatal sepsis
  - ▶ Active involvement and empowerment of communities through activities of CHWs e.g. through changing health beliefs and advocating for improved access to services
- 



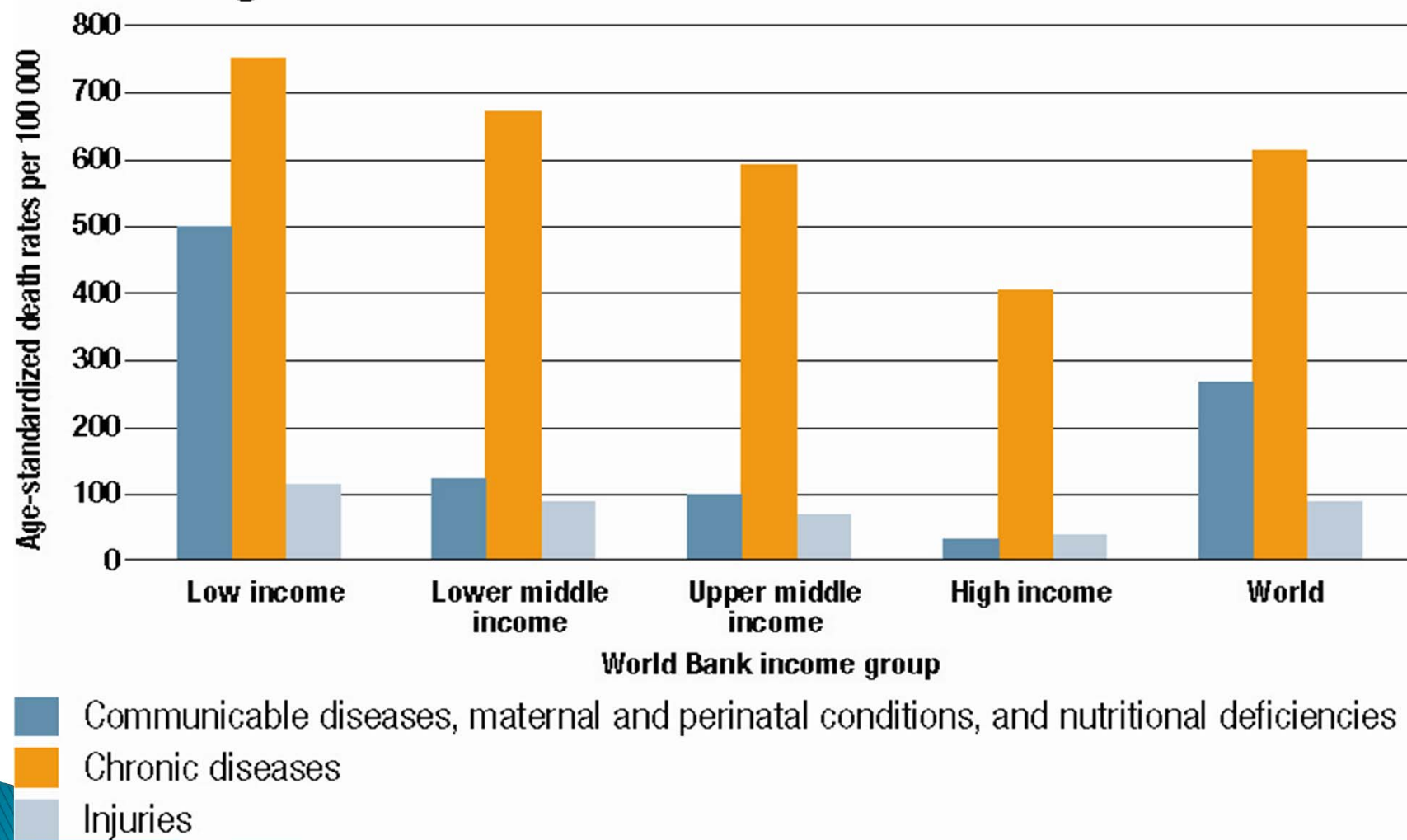
# PHC interventions to prevent child deaths

Bhutta ZA et al Lancet 2008

- ▶ 25 interventions for which evidence of effect, cost effectiveness and plausibility is sufficient for use in PHC either universally or in some situations
- ▶ If implemented at 99% coverage in Uganda could prevent 45% neonatal and 79% post-neonatal child deaths



# Projected main causes of death by World Bank income group, all ages, 2005



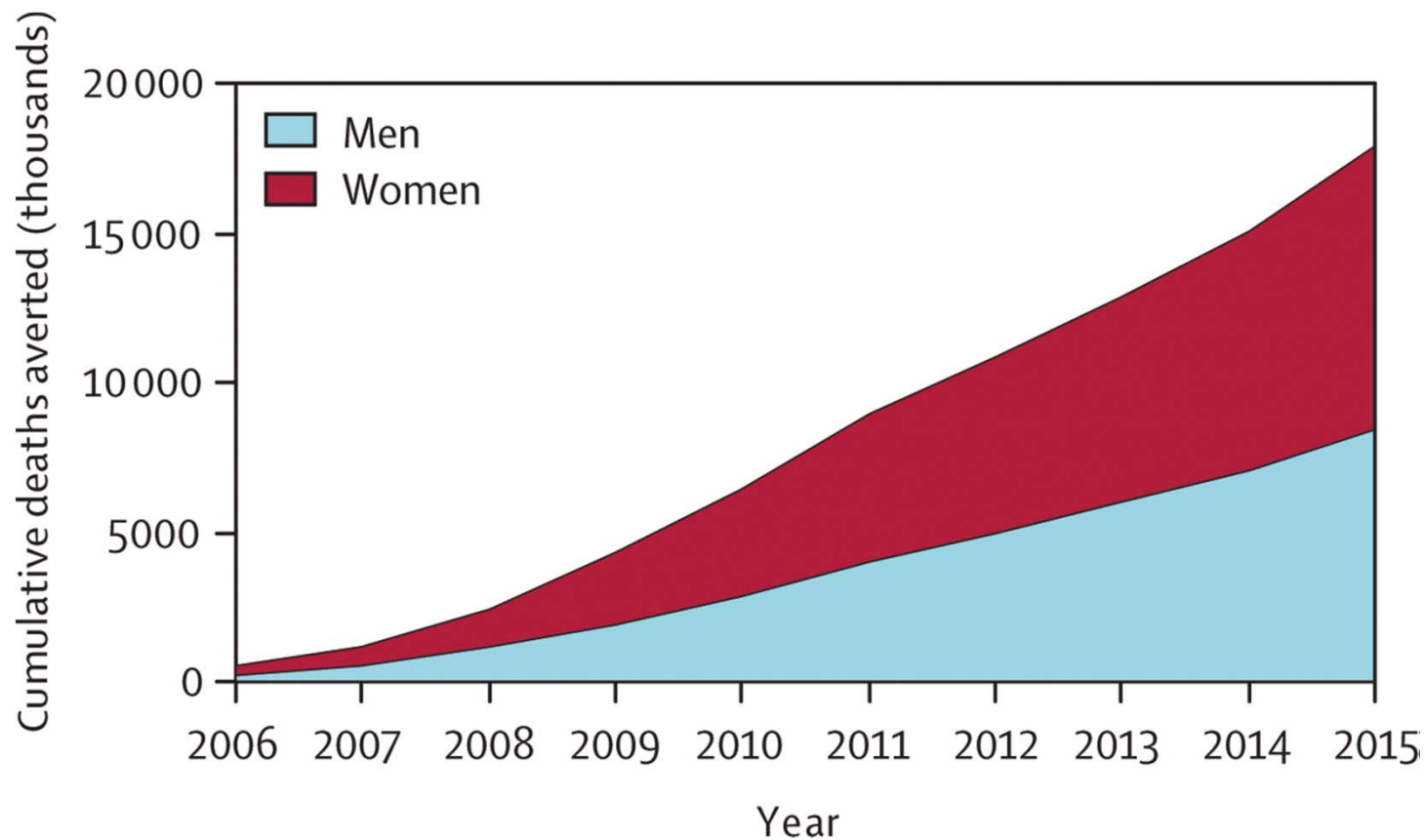
Source: WHO Global Report: Preventing Chronic Diseases: a vital investment, 2005.  
[http://www.who.int/chp/chronic\\_disease\\_report/en/index.html](http://www.who.int/chp/chronic_disease_report/en/index.html)

# Effective interventions for non-communicable diseases that could be delivered in PHC

	Interventions	Level of evidence
Tobacco use	Brief counselling and cessation advice and follow-up, nicotine-replacement therapy	Cochrane SRs
High risk of cardiovascular disease	Multi-drug regimen and health promotion advice	RCTs of components of multi-drug regimen and SRs
Impaired glucose tolerance	Risk-factor modification through lifestyle intervention or metformin	RCTs

Source: The Lancet, 372 Beaglehole R, Epping-Jordan J, Patel V, Chopra M, Ebrahim S, Kidd M, Haines A, Improving the prevention and management of chronic disease in low-income and middle-income countries: a priority for primary health care, 940-46, copyright 2008, with permission from Elsevier

# Deaths averted with a multidrug regimen for the prevention of cardiovascular disease, 2006-15



Reprinted from *The Lancet*, 370, Lim SL, Gaziano TA, Gakidou E, Reddy KS, Farzadfar F, Lozano R, Rodgers A, Prevention of cardiovascular disease in high-risk individuals in low-income and middle-income countries: health effects and costs, 2054-2062, Copyright 2007, with permission from Elsevier

# Lady Health Workers using Cognitive Behavioural Therapy to treat postnatal depression in rural Pakistan

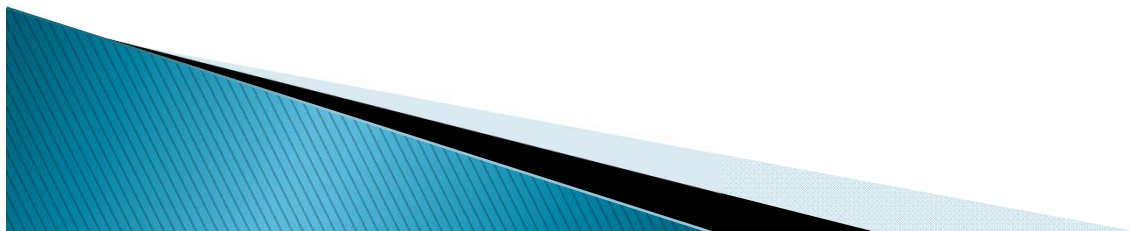
(Rahman et al, Lancet 2008)

- ▶ Cluster Randomised trial
- ▶ @1 year 27 % mothers depressed in intervention vs. 59% in control group. ( $p < 0.0001$ )
- ▶ Increased immunisation, contraception, and play frequency with infants



# What does chronic disease management cost if scaled up to national levels?

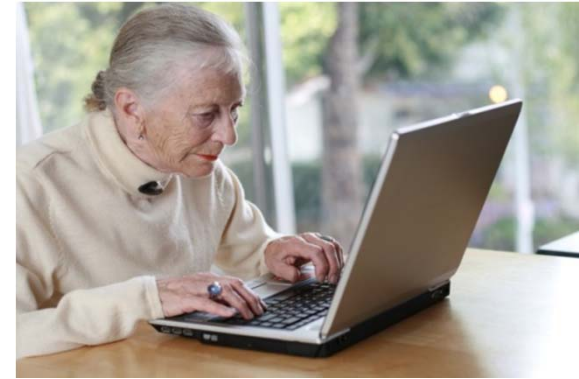
- ▶ “36 million deaths from chronic diseases could be postponed by public health and primary care in the next 10 years at a cost of US\$1.50 per person per year”.  
Beaglehole, Ebrahim, Reddy et al, Lancet 2008
- ▶ Mental disorders (4 adult disorders): US\$2 per capita in low income to \$3-4 in lower middle income countries.  
Lancet GMH series, 2007



# Interactive communication for patients with chronic diseases

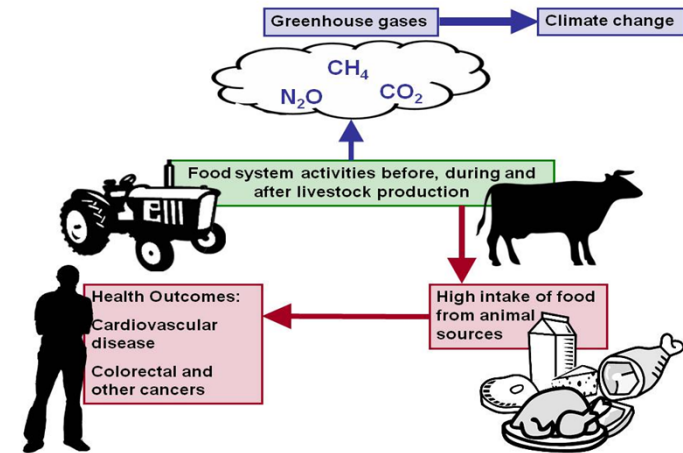
( Murray et al 2009 Cochrane Database of Systematic Reviews)

- ▶ Use IT – often web-based
- ▶ 24 trials 3800 patients
- ▶ Convey probabilistic information, clarify the patient's values and promote patient empowerment
- ▶ Beneficial effects on social support, knowledge, self-efficacy and to a lesser extent clinical outcomes
- ▶ Significant effect on behavioural outcomes



# Many 'low carbon' policies good for health and for the climate (Haines et al Lancet 2009)

Case studies in four sectors responsible for large emissions of greenhouse gases (GHGs) showed major health benefits





# Conclusions

- ▶ Effective, efficient and responsive primary care services are essential for the sustainability of health systems.
- ▶ HTA plays a vital role particularly where resources are highly constrained.
- ▶ HTA must be linked to health systems research to ensure delivery at scale.
- ▶ The role of primary care in promoting environmental sustainability needs further research.

