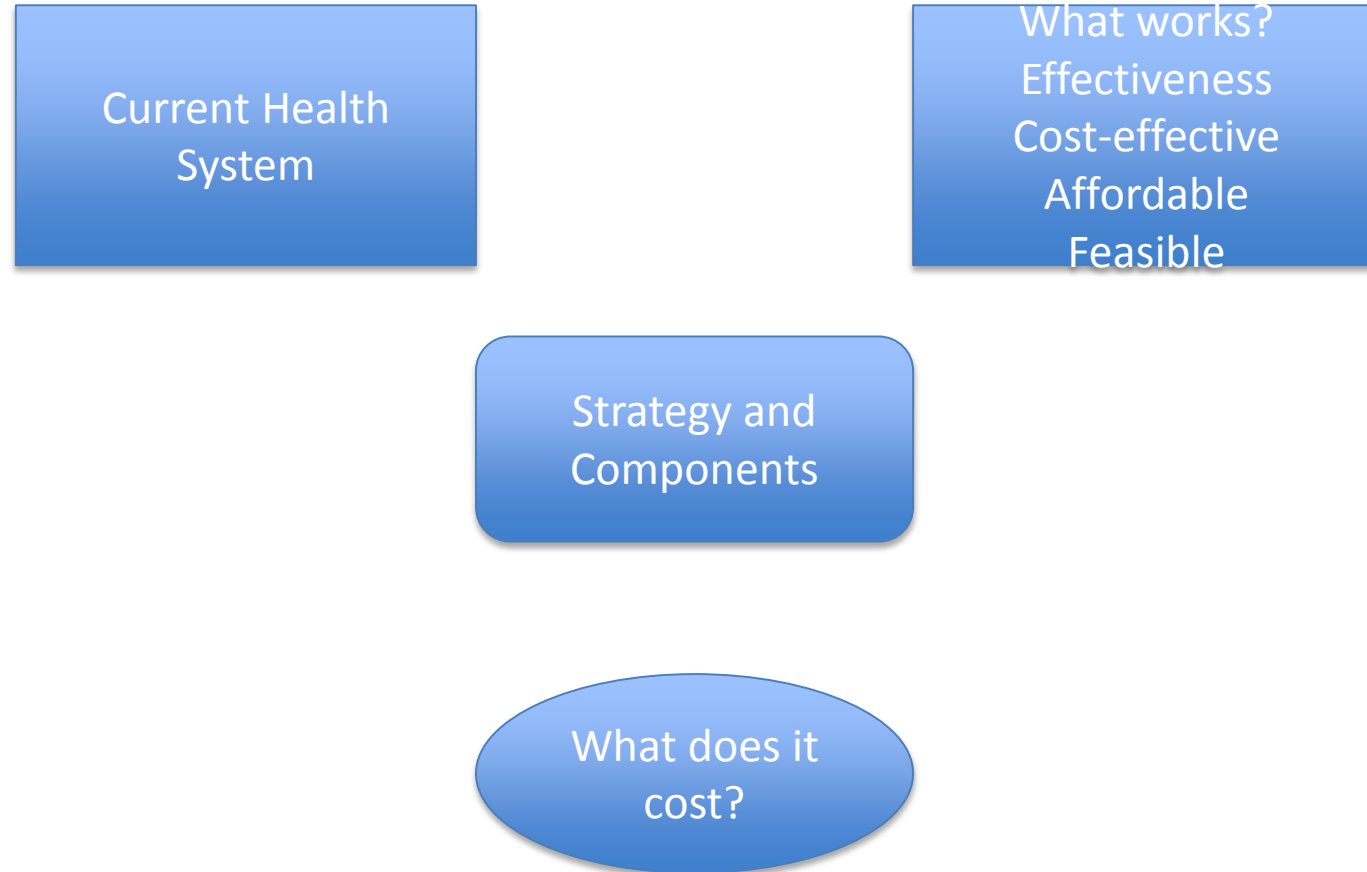


Costing tools and national level cost data for estimating resource use and costs to prevent and treat NCDs

Opportunities and weaknesses

Costing as part of planning



DCPN Costing and Economic Evaluations

Existing costing tools and applications

- WHO NCD Costing Tool
 - Regional and country level applications
 - Applied to sensory disorders, cancers, CVD (salt reduction), diabetes, and tobacco, respiratory disorders, mental disorders, injuries, alcohol.
 - Builds WHO-CHOICE unit cost estimates and can be modified with national level data.
- UN ONEHEALTH Tool
 - Builds on WHO NCD costing tool and WHO-CHOICE estimates

Estimates from WHO NCD costing tool

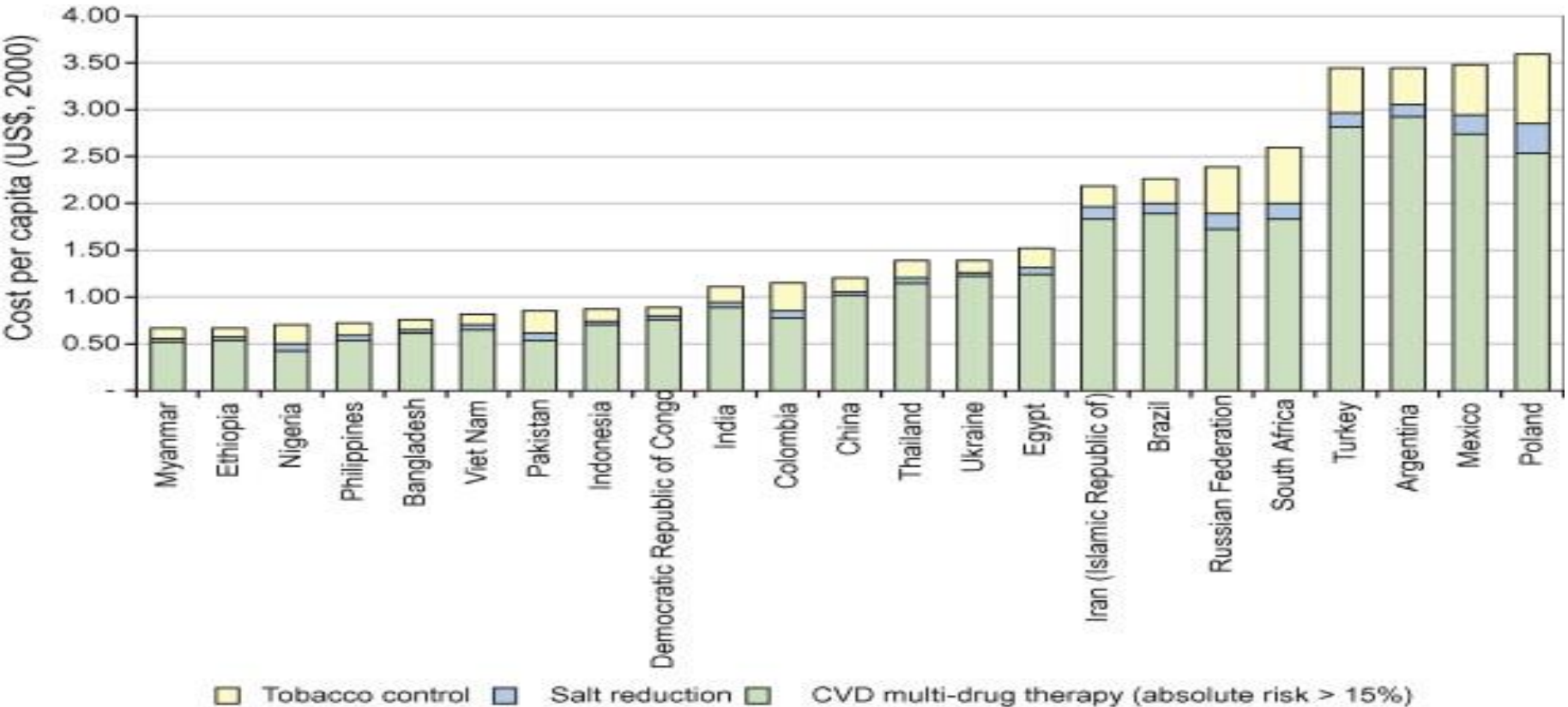


Figure 1 Costs of scaling up chronic disease prevention strategies in 23 developing countries

Source: Stenberg et al. 'Resource Needs for Addressing Noncommunicable Disease in Low- and Middle-Income Countries : Current and Future Developments' Global Heart Volume 7, Issue 1 2012 53 - 60

Costs from the literature

- Low, low-middle income, and some upper middle income (WB classification)
- Focus on cost analyses
- Search terms for CVD, diabetes, salt, tobacco
 - Combine with cost, cost analysis, CEA, economic evaluation, cost of treatment, treatment costs, economic burden of disease, etc.

Results for CVD

- Includes 56 articles
 - Majority from Asia (China and India)
 - 11% from SSA
 - 50% are just cost studies
 - Over 50 % related to heart disease
 - 11% to treatment of stroke
 - X % to kidney disease
- What do the cost data reveal?

Comparing Costs

Hospital Treatment Cost : Per Patient Per Stroke Event (US\$ 2010)		
Pakistan	\$1,451.92	Khealani et al. (2003)
China (state insurance)	\$1,199.60	Ma et al. (2010)
China (rural insurance)	\$830.70	Ma et al. (2010)
Congo	\$388.93	Gombet et al. (2009)
Nigeria	\$857.50	Birabi et al. (2012)
CABG Cost : Per Patient Per Event		
China	\$7,677.18	Cheng et al. (2009)
South Africa	\$14,077.14	Gaziano et al. (2005)

Papers with CVD Costing in SSA

- Few CVD Costing articles from Africa
 - We found 10 papers with CVD costing information from SSA (2000 onward)
 - 2 on stroke costs, 3 on hypertension, 5 on general CVD costs
 - From Nigeria, Congo, Tanzania, South Africa, or regarding the entire region
- Major Gaps in the Literature
 - Costs of interventions using case management outside of facilities
 - Exception: Pakistani article regarding community-based strategies for blood pressure control (Tazeen Jafar et al. 2011)

What is the demand: from where and for what?

- Uganda example
- World Bank: basic packages related to MDGs
- What
 - Need to contextualize the WHO tools
 - Need to add cost of service delivery, do regular cost data collection
 - Economic burden of disease
 - Get marginal cost of adding NCD care

Caveats

- Not exhaustive
- Variable methods to estimate costs
- Variable quality of studies

Observations

- Need to define some standard interventions and treatments
 - Otherwise level of care, drug therapies vary widely making comparisons across countries difficult.
- Treatment of stroke relatively straight forward
- CVD more challenging due to:
 - list key features of the literature here.