Translating public health evidence into policy

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8th International Conference on Public Health
Among Greater Mekong sub-Region Countries
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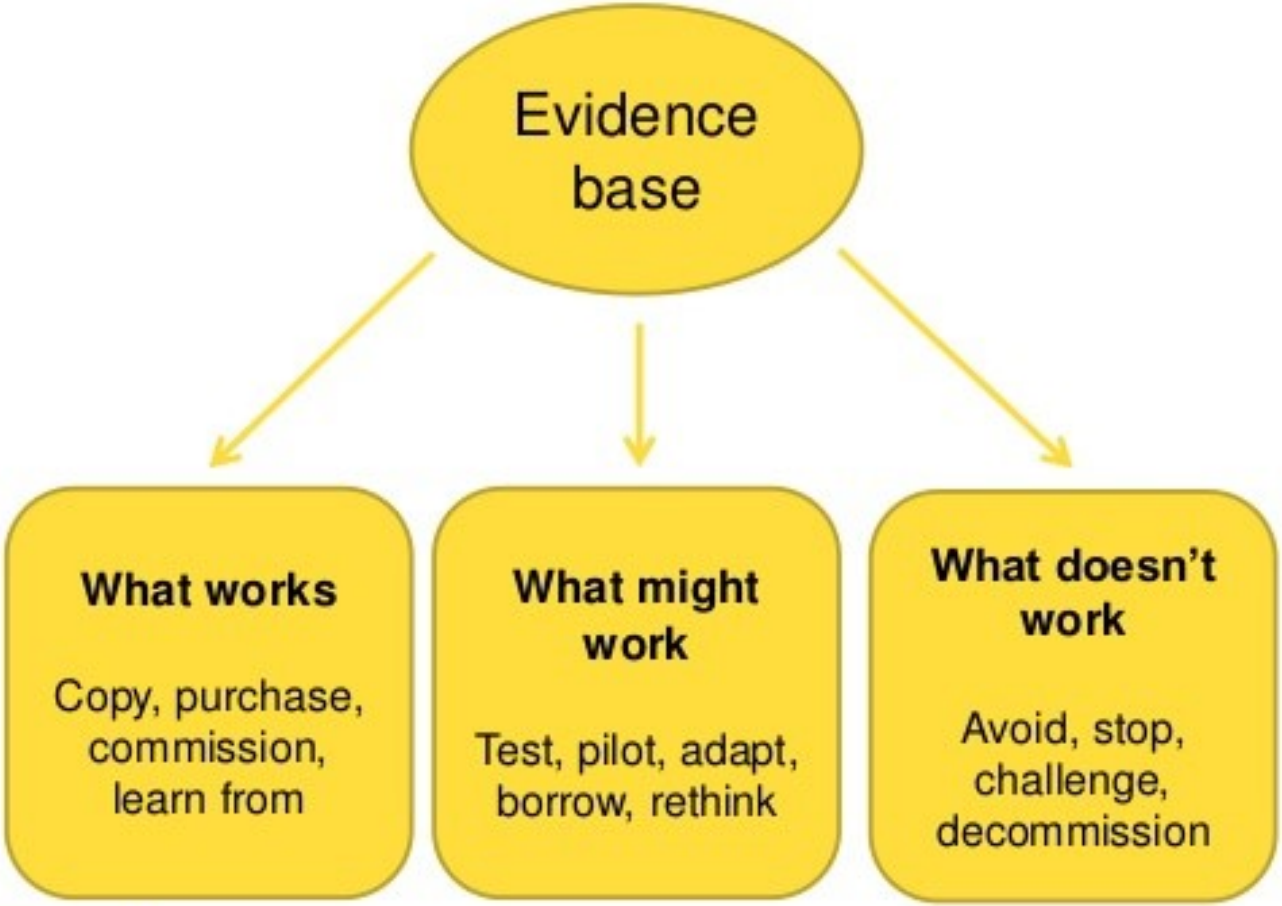
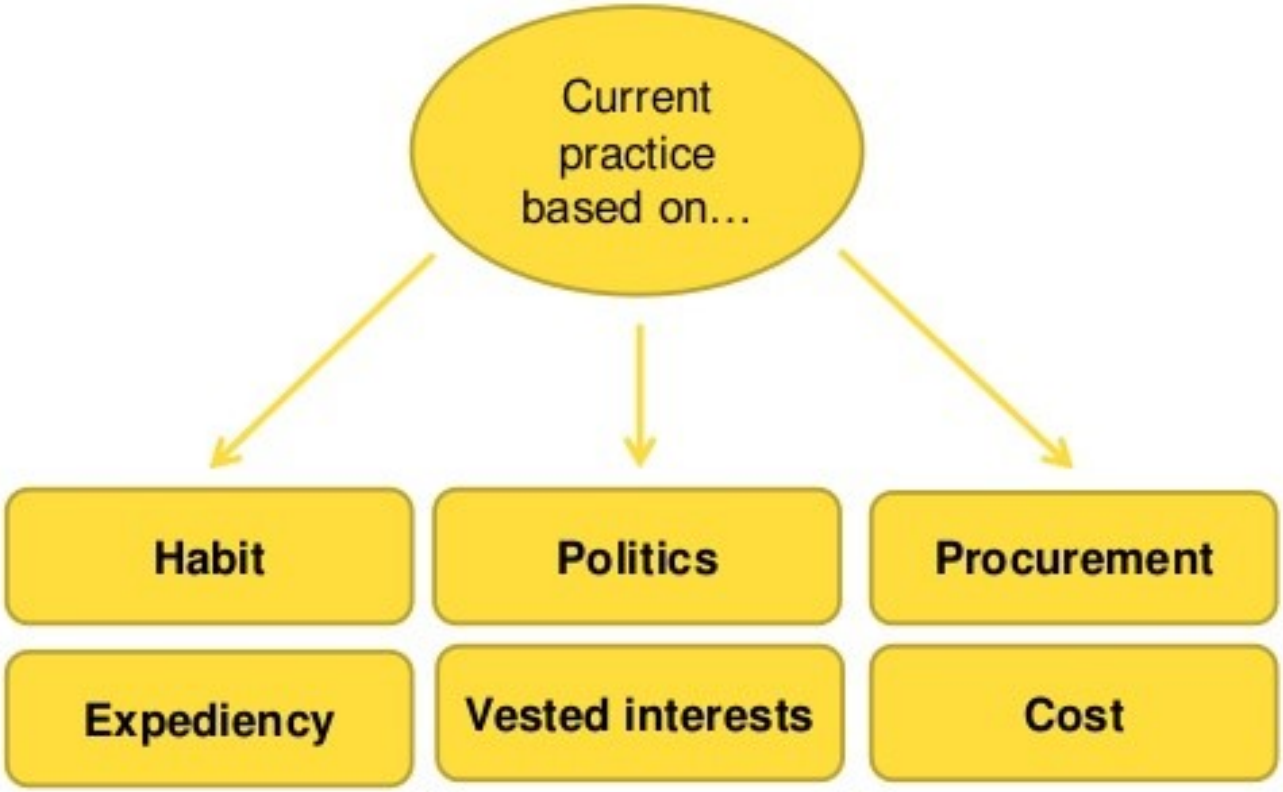
5-6 November 2016

Why we should engage with evidence



new economy
part of MGO

Why we don't engage with evidence



new economy
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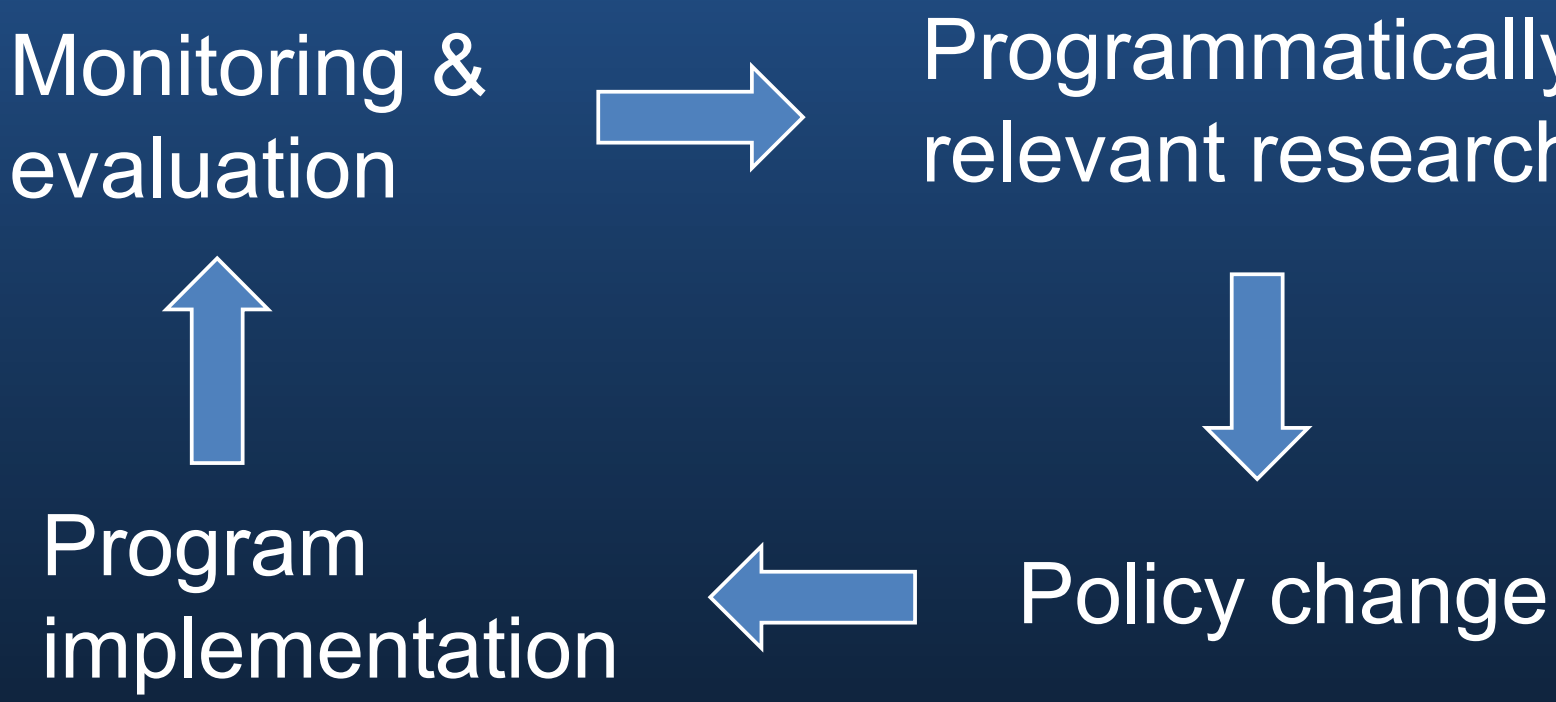
Using evidence to drive improvements in public health

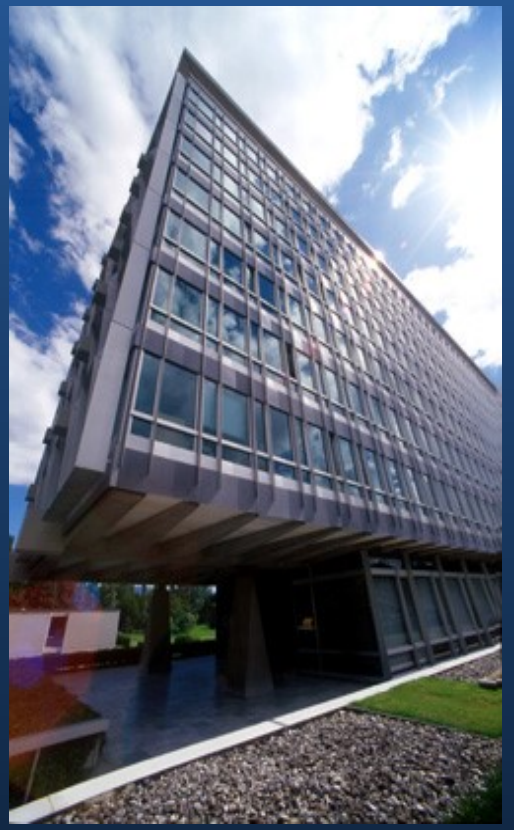


Some principles of policy setting

- Evidence-based
- Transparency
- Accountability
- Speed
- Relevance
- Responsiveness
- Free from undue influence

Public Health policy setting at global level

World Health Organization (WHO)



Mission: the attainment by all people of the highest possible level of health

What is a WHO guideline?

- "Guidelines are recommendations intended to assist providers and recipients of health care and other stakeholders to make informed decisions. Recommendations may relate to clinical interventions, public health activities, or government policies." WHO 2003, 2007

Minimum standards for *reporting* in WHO guidelines

- Who was involved and their declaration of interests
- How the guideline was developed, including
  - how the evidence was identified
  - how the recommendations were made
- Use by date (review by date)

Confidence in evidence

- There always is evidence
  - “When there is a question there is evidence”
- Evidence alone is never sufficient to make a clinical decision
- Better research $\Rightarrow$ greater confidence in the evidence and decisions

Hierarchy of evidence

STUDY DESIGN

- Randomized Controlled Trials
- Cohort Studies and Case Control Studies
- Case Reports and Case Series, Non-systematic observations

Expert Opinion

BIAS

WHO

Reasons for grading evidence?

- Help people draw conclusions about the quality of evidence and strength of recommendations
- Systematic and explicit approaches can help:
  - protect against errors, resolve disagreements
  - communicate information and fulfil needs
- Change practitioner behavior

GRADE working group. BMJ. 2004 & 2008

Grades of Recommendation Assessment, Development and Evaluation

GRADE Working Group

RATING QUALITY OF EVIDENCE AND STRENGTH OF RECOMMENDATIONS

GRADE

GRADE: an emerging consensus on rating quality of evidence and strength of recommendations

Guidelines are inconsistent in how they rate the quality of evidence and the strength of recommendations. This article explores the advantages of the GRADE system, which is increasingly being adopted by organisations worldwide

BMJ | 26 APRIL 2008 | VOLUME 336

CMAJ 2003, BMJ 2004, BMC 2004, BMC 2005, AJRCCM 2006, Chest 2006, BMJ 2008

The GRADE approach

Clear separation of 2 issues:

1) Quality of evidence: 4 categories: very low, low, moderate, or high quality
   - methodological quality of evidence
   - likelihood of bias
   - by outcome
2) Recommendation: 2 grades - weak or strong (for or against)?
   - Quality of evidence only one factor

*www.GradeWorking-Group.org

GRADE Quality of Evidence

"Extent to which confidence in estimate of effect adequate to support decision"

- high: considerable confidence in estimate of effect.
- moderate: further research likely to have impact on confidence in estimate, may change estimate.
- low: further research is very likely to impact on confidence, likely to change the estimate.
- very low: any estimate of effect is very uncertain

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Determinants of quality

- RCTs start high
- Observational studies start low
- 5 factors lower the quality of evidence
  - design and execution flaws
  - inconsistency
  - indirectness
  - reporting bias
  - imprecision
- 3 factors can increase the quality of evidence
  - strong association
  - dose response gradient
  - confounders would have reduced the effect

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WHO

Design and execution flaws

- inadequate randomization
- lack of concealment
- intention to treat principle violated
- inadequate blinding
- loss to follow-up
- early stopping for benefit

Imprecision

- small sample size
- small number of events
  - wide confidence intervals
  - uncertainty about magnitude of effect

Recommendations:
Strength of recommendation

The strength of a recommendation reflects the extent to which we can, across the range of patients for whom the recommendations are intended, be confident that desirable effects of a management strategy outweigh undesirable effects.

Determinants of the strength of recommendation

Factors that can strengthen a recommendation	Comment
Quality of the evidence	The higher the quality of evidence, the more likely is a strong recommendation.
Balance between desirable and undesirable effects	The larger the difference between the desirable and undesirable consequences, the more likely a strong recommendation warranted. The smaller the net benefit and the lower certainty for that benefit, the more likely weak recommendation warranted.
Values and preferences	The greater the variability in values and preferences, or uncertainty in values and preferences, the more likely weak recommendation warranted.
Costs (resource allocation)	The higher the costs of an intervention – that is, the more resources consumed – the less likely is a strong recommendation warranted

Desirable and undesirable effects

- Desirable effects
  - Mortality
  - improvement in quality of life, fewer hospitalizations/infections
  - reduction in the burden of treatment
  - reduced resource expenditure
- Undesirable effects
  - deleterious impact on morbidity, mortality or quality of life, increased resource expenditure

Implications of a *strong* recommendation

- Patients: Most people in this situation would want the recommended course of action and only a small proportion would not
- Clinicians: Most patients should receive the recommended course of action
- Policy makers: The recommendation can be adapted as a policy in most situations

Implications of a *weak* recommendation

- Patients: The majority of people in this situation would want the recommended course of action, but many would not
- Clinicians: Be prepared to help patients to make a decision that is consistent with their own values/decision aids and shared decision making
- Policy makers: There is a need for substantial debate and involvement of stakeholders

Malaria Policy Advisory Committee (MPAC)

Provides independent strategic advice and technical input to WHO for the development of policies related to malaria control and elimination

WHO Malaria Policy Advisory Committee and Secretariat *Malaria Journal* 2012, **11**:137
http://www.malariajournal.com/content/11/1/137

MALARIA JOURNAL

MEETING REPORT **Open Access**

Inaugural meeting of the malaria policy advisory committee to the WHO: conclusions and recommendations

WHO Malaria Policy Advisory Committee and Secretariat

How do countries translate global recommendations into local policy, especially in resource constrained environments?

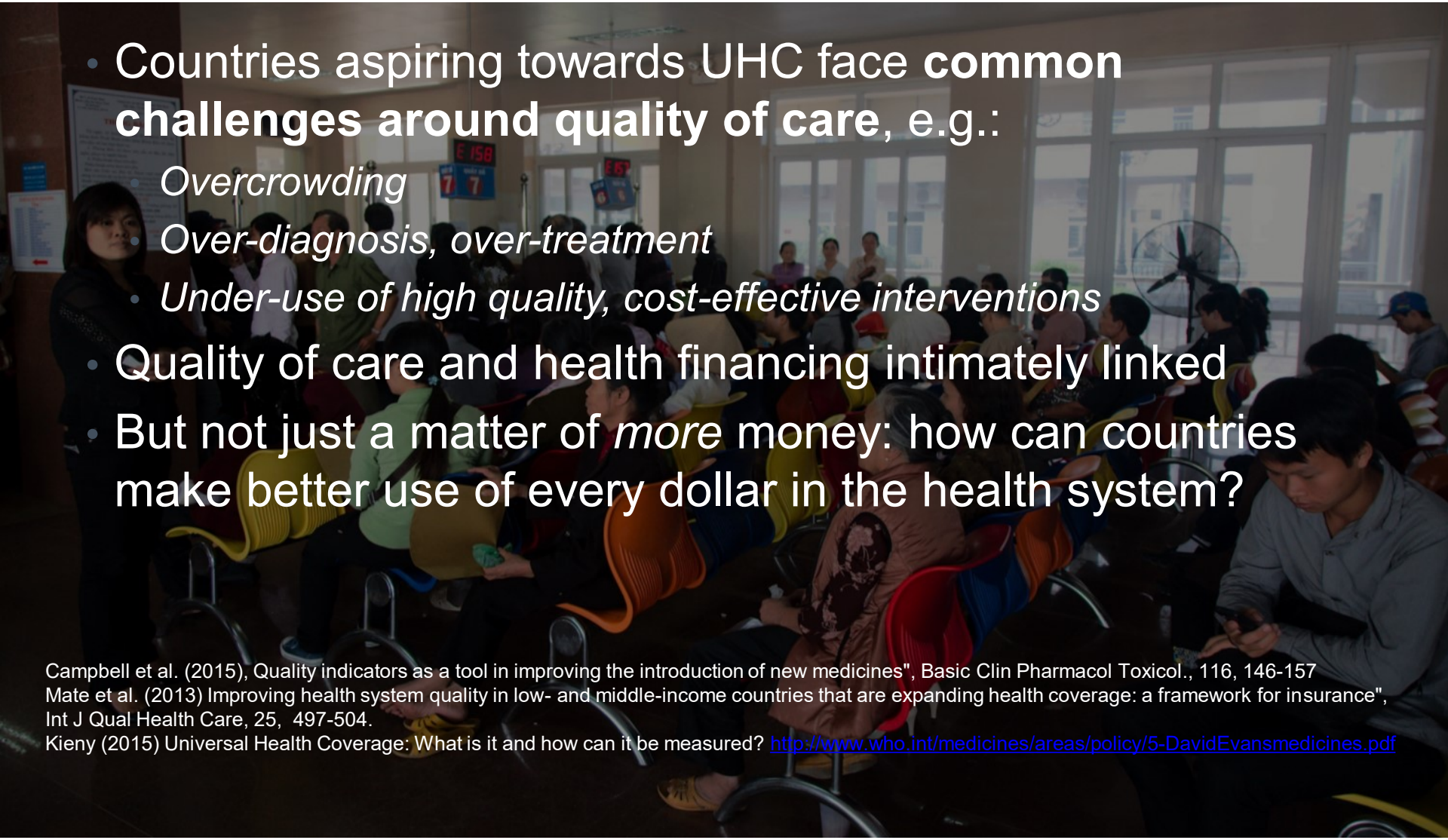
Harnessing the power of networks for building capacity for HTA

HTAi 2016, Tokyo, japan

Kalipso Chalkidou, MD, PhD
Director, NICE International

Better decisions. Better health.

The quality challenge facing low- and middle-income countries (LMICs)



- Countries aspiring towards UHC face **common challenges around quality of care**, e.g.:
  - *Overcrowding*
  - *Over-diagnosis, over-treatment*
  - *Under-use of high quality, cost-effective interventions*
- Quality of care and health financing intimately linked
- But not just a matter of *more* money: how can countries make better use of every dollar in the health system?

Campbell et al. (2015), Quality indicators as a tool in improving the introduction of new medicines", Basic Clin Pharmacol Toxicol., 116, 146-157
Mate et al. (2013) Improving health system quality in low- and middle-income countries that are expanding health coverage: a framework for insurance", Int J Qual Health Care, 25, 497-504.
Kieny (2015) Universal Health Coverage: What is it and how can it be measured? http://www.who.int/medicines/areas/policy/5-DavidEvansmedicines.pdf

Priority-setting in health

"Prioritisation is needed because **claims (whether needs or demands) on healthcare resources are greater than the resources available"** *UK NHS, 2009*

- Decision-makers are *always* making choices and weighing the trade-offs between the various options, whether implicitly or explicitly
- Health technology assessment (HTA), clinical guidelines and health benefits plans are tools to support **rational priority-setting***

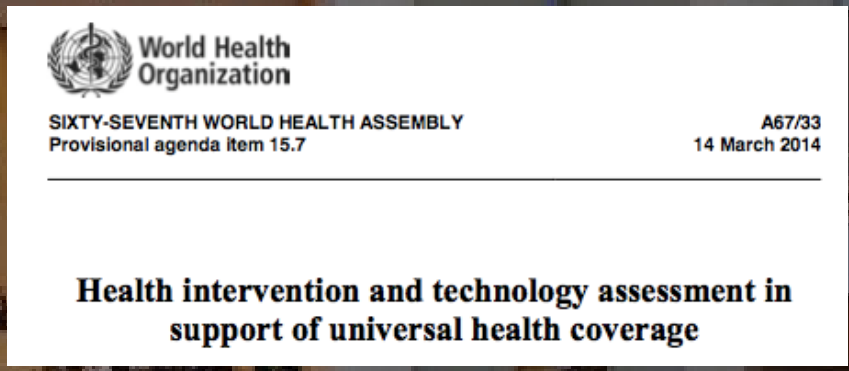
*Li et al. (2016) Health Systems & Reform, 2

World Health Assembly resolution on Health Intervention and Technology Assessment in Support of UHC

"**Every pound can only be spent once**. If we spend it unwisely... then we risk harming other people whose care will be adversely affected…

It is vital that priority setting is an **evidence-informed, procedurally fair process** that defines what will be covered through universal health coverage."

Prof David Haslam, Chair of NICE, addressing the 25th World Health Assembly, Geneva, 2014



World Health Organization

SIXTY-SEVENTH WORLD HEALTH ASSEMBLY
Provisional agenda item 15.7

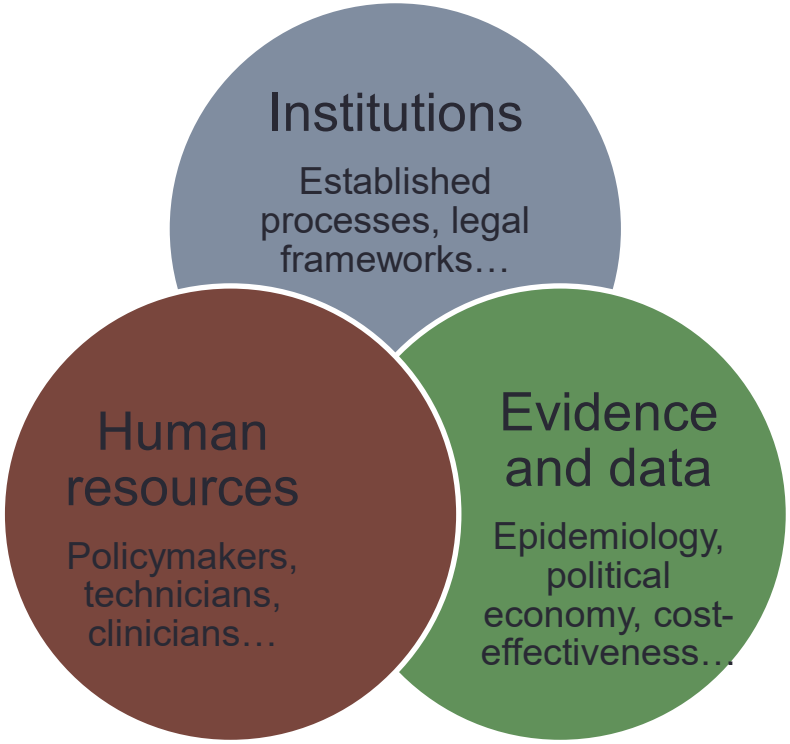
A67/33
14 March 2014

Health intervention and technology assessment in support of universal health coverage

But there is a serious capacity gap…

Despite increasing political commitment to UHC, priority-setting **capacity** for low- and middle-income countries is **limited and uncoordinated**

The capacities required for effective priority-setting



International Decision Support Initiative (iDSI)

- Mission*: Guiding decision makers to effective and efficient healthcare resource allocation strategies for improving people's health*
  - **Strengthening LMICs' technical and institutional capacities** for making accountable, sustainable, and cost-effective healthcare policy decisions
  - Providing **demand-driven practical support and knowledge products** that are useful for decision-makers
  - **Working with global development partners and funders** to maximise their investment and policy impacts
- Core partners

Imperial College London

HiTAP

Center for Global Development

PRICELESS SA
Priority Cost Effective Lessons for System Strengthening

iDSI
Better decisions. Better health.

What is the role of evidence generation at country level?

We cannot generate new evidence for every intervention in every setting

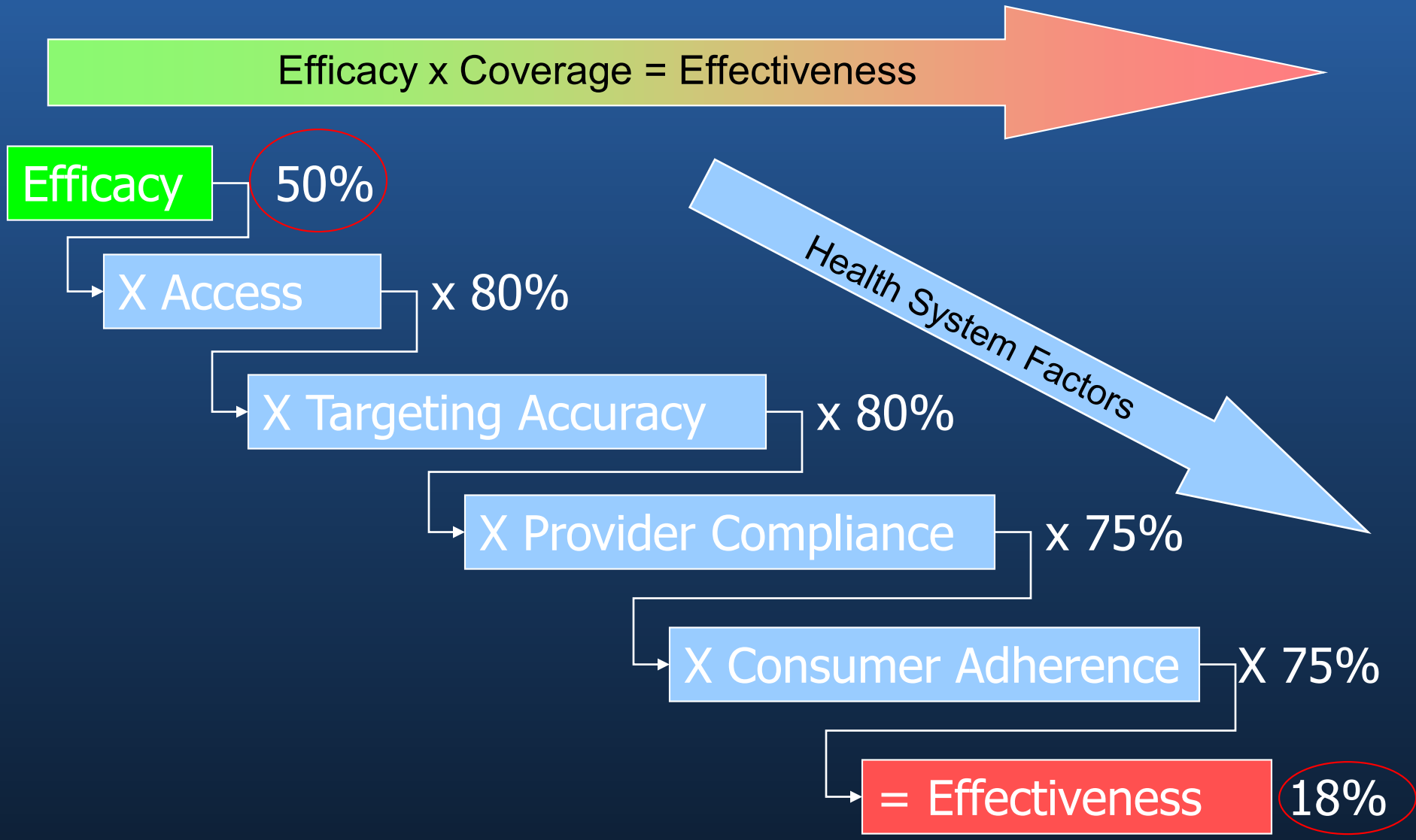
- When is global evidence good enough?
  - How to assess similarities across geographic settings
- When is locally generated evidence required?
- How to encourage research prioritization at country level?

Operational Research or Implementation Research

- The search for knowledge on interventions, strategies, or tools that can enhance the quality, effectiveness, or coverage of programmes in which the research is being done

Zacahriah et al, Lancet, November 2009

Why interventions lose traction…



Slide courtesy of Marcel Tanner

Operational Research is critical to our success in public health

- Need to learn as we implement
  - We have a responsibility to learn how to best deliver and sustain public health interventions
- Continuously refine delivery strategies
- Opportunity for on-the-ground innovation
- Should be funded as an integral part of public health programmes
- Well conducted operations research will protect enormous investments being made in public health

‘Evidence based policymaking’ champions and critics

- EBP champions hold that:
  - Evidence can be used to improve societal goals;
  - Evidence is not used widely enough – missed or ignored;
  - Evidence is often misused for political purposes: *The Politicisation of Science*
- EBP critics holds that
  - Policy making is political, not a technical decision in most case
  - ‘Use’ of evidence is underspecified and often equated to implementation of single research findings (‘problem solving model’).
  - Improved evidence is equated to more evidence, without concern for the political implications of particular pieces
  - Promotion of evidence without explicit political recognition serves to impose de-facto policy agendas under a shroud of technical improvement: *The Depoliticisation of Politics*

GETTING RESEARCH INTO HEALTH POLICY AND PRACTICE
GRIPHEALTH

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

What's wrong with doing 'what works'?

1. Evidence of effect does not equal social desirability
   - Hierarchies of evidence and RCTs are not indicators of policy priority but of intervention effect. Only one of many concerns.

1. What works *there* may not work *here*
   - Confusion of internal and external validity
   - RCTs do not say anything about generalisability – depends on mechanisms of effect

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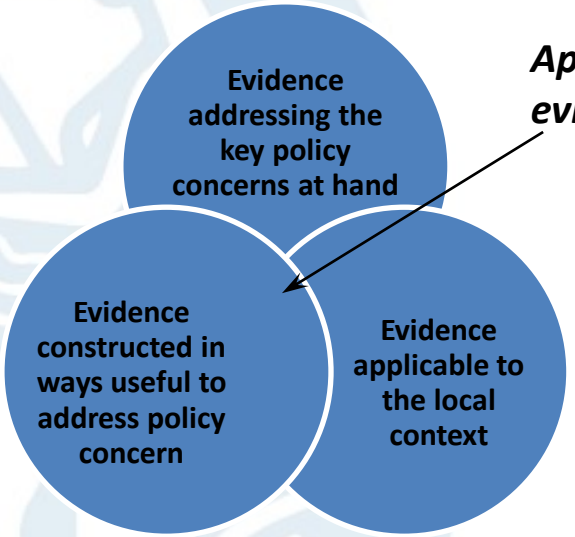
Appropriateness framework – good evidence for policy



Appropriate evidence for policy

Good evidence for policy:
Appropriate evidence of high quality

Quality judged by:

- Evidence applied with integrity to scientific principles;
- Evidence applied systematically to include relevant information on an issue of concern in a consistent and up-to-date manner;
- Evidence using high quality methodological criteria relevant to the data type, e.g.:
  - Surveys of robust design and significant sample size;
  - Interventions evaluated through RCTs;
  - Estimates from models based on adequate input data and reasonable variable estimation;
  - Attitudinal insights from high quality ethnographic or qualitative investigations;

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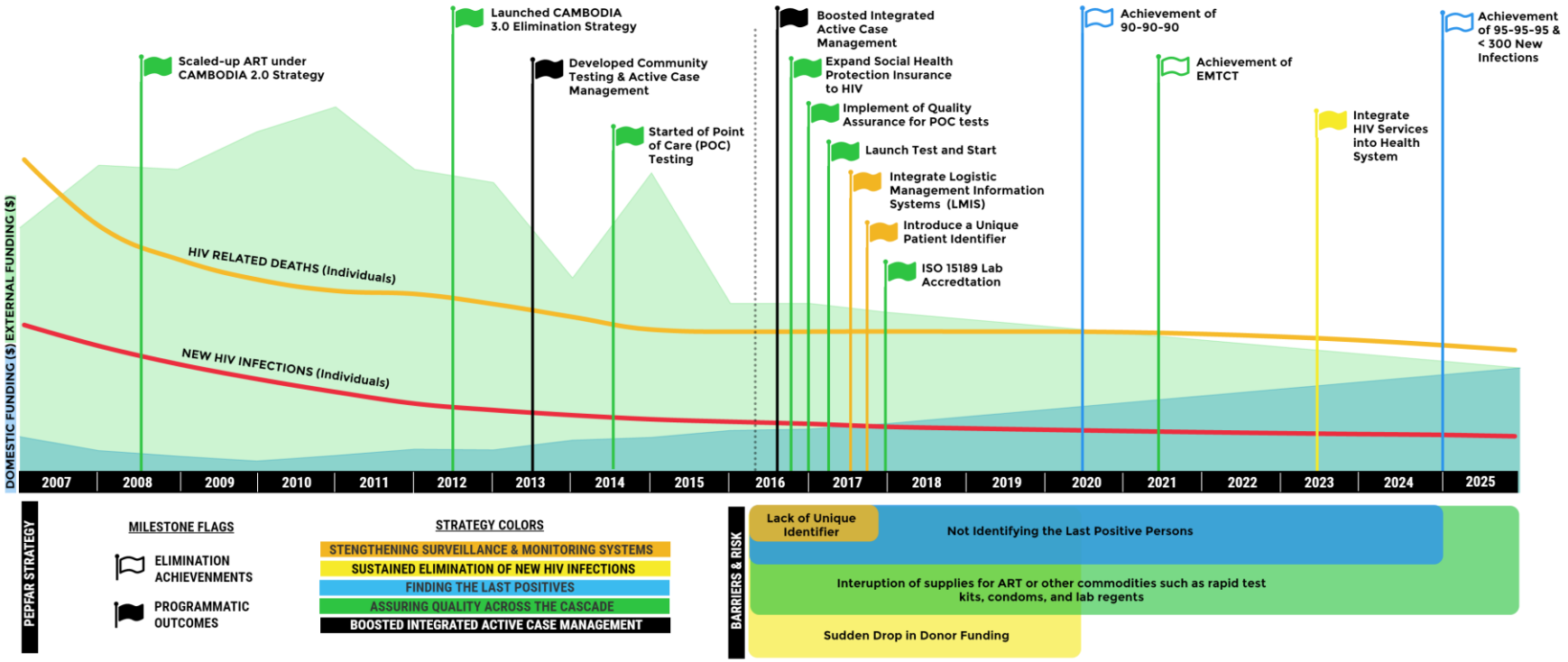
Concluding Thoughts

THE PATHWAY TOWARDS

ELIMINATING NEW HIV INFECTIONS

IN CAMBODIA



What got us here…
will not get us there

Innovation is indispensable

Evolutionary change and revolutionary change: we need both

Data:
without it,
we are flying blind

Data should not be an extractive industry…

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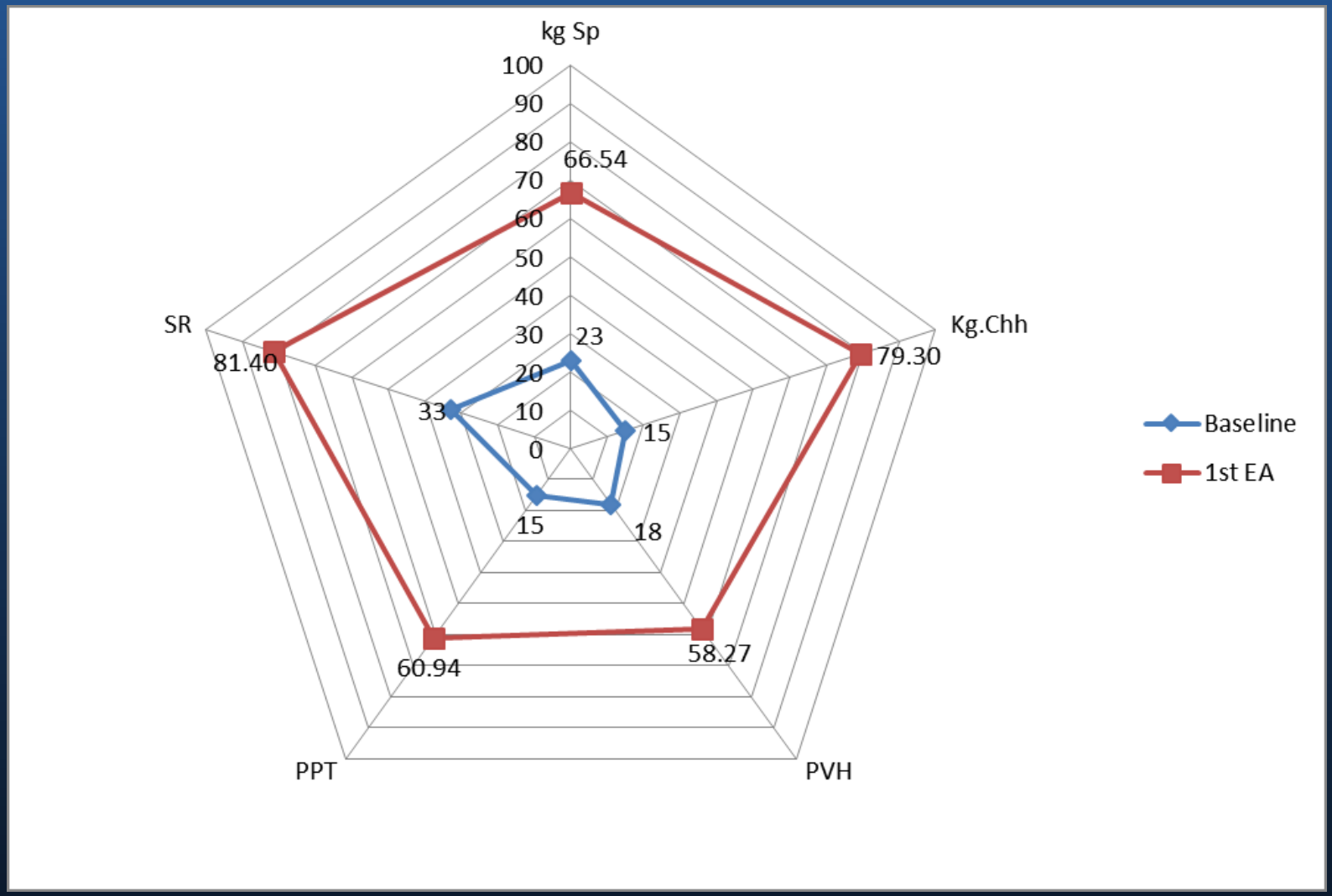
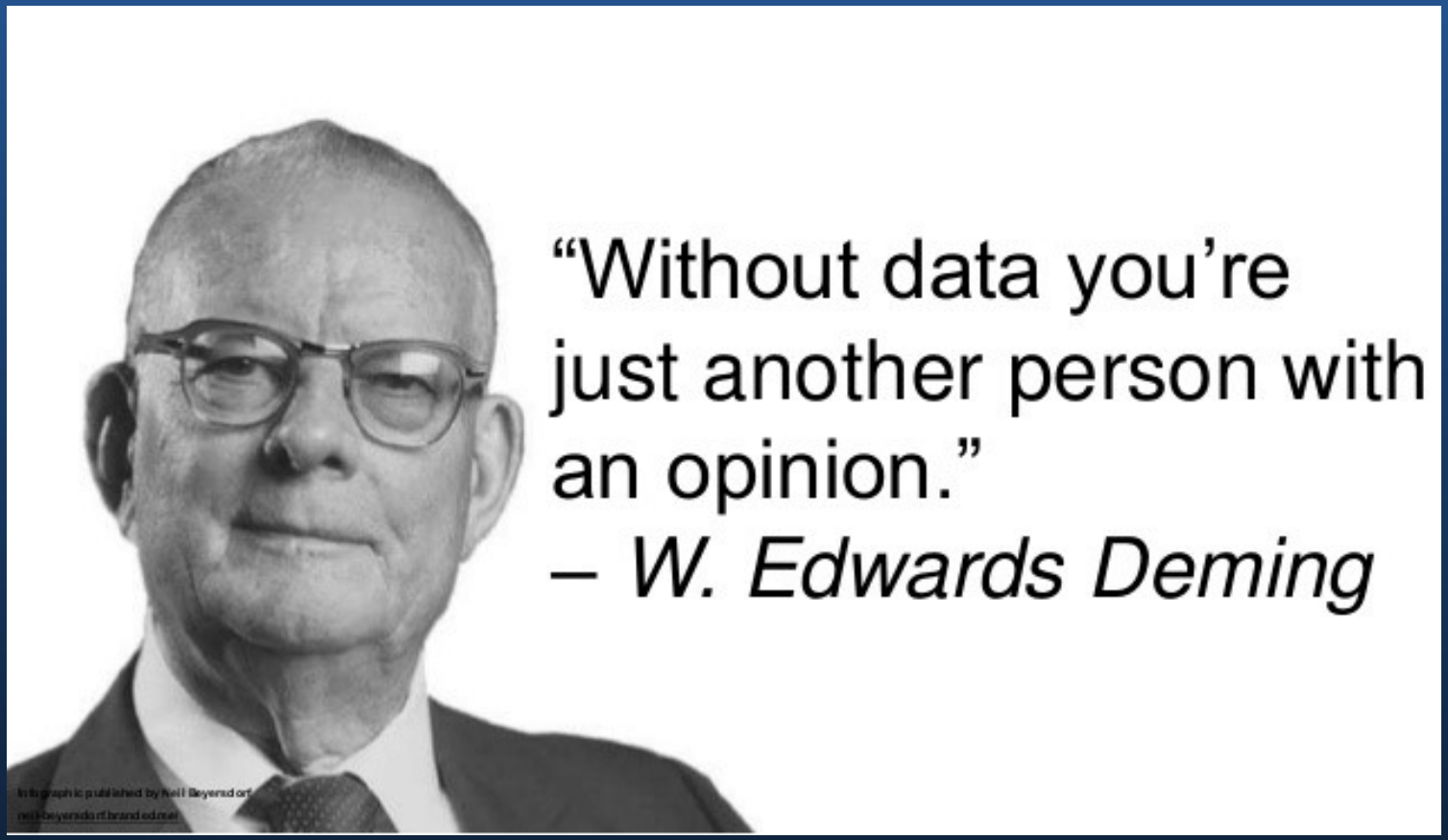
Improving laboratory quality in Cambodia

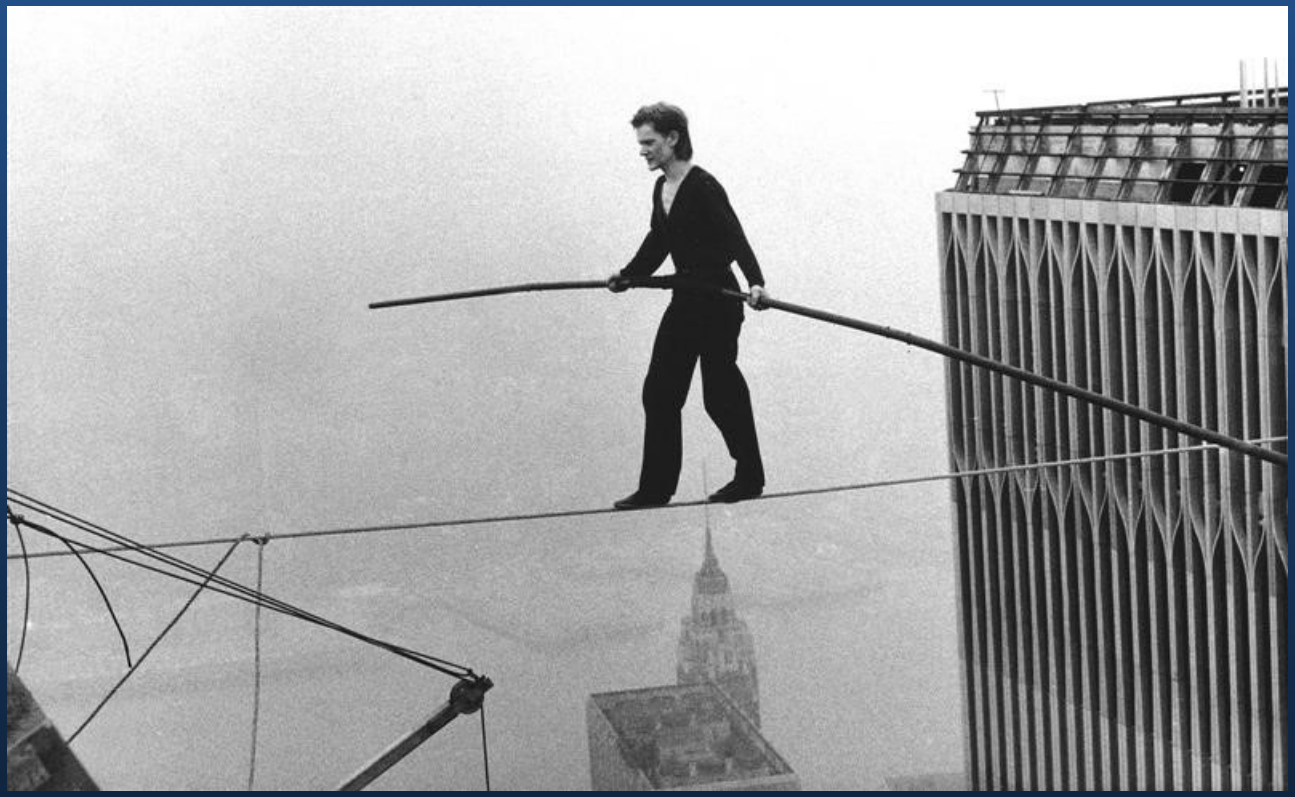


“Knowledge is power. Information is liberating."

Kofi Annan, 7th Secretary General of the UN


"Without data you're
just another person with
an opinion."
– W. Edwards Deming

Global Health in the 21st century: a balancing act



Vision: / vɪʒ(ə)n/

the ability to think about or plan the future with imagination or wisdom

Humility: / hjʊˈmɪlɪti/

Having a clear perspective, and therefore respect, for one's place in context

Acknowledgments

- Peter Olumese (WHO)
- Kalipso Chalkidou (iDSI)
- Ryan Li (iDSI)
- Yot Teerawattananon (HiTAP)
- Justin Parkhurst (LSHTM); "The Politics of Evidence: from evidence-based policy to the good governance of evidence" can be downloaded for free from the Taylor and Francis eBooks site: http://www.tandfebooks.com/action/showBook?doi=10.4324/9781315675008

Thank you

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