Communicating Research to Policymakers

PNHRS Forum

Davao, August 13 2009

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Outline

- Policy: what? why?
- Policy analysis process & role of research
- Research Synthesis for policy use
  - Health technology assessment
  - Systematic reviews & meta-analysis
- Research translation
  - Policy briefs
  - Policy notes/ summaries
  - Policy dialogues

POLICY

LAWS / RULES

METHODS

CONTENT

PROCESS

POWER

What is the purpose of policy?

- Policy as a statement of belief/ position/ value
  - No person shall be deprived of life, liberty, or property without due process of law, nor shall any person be denied the equal protection of the laws.

Philippine Constitution, Bill of Rights

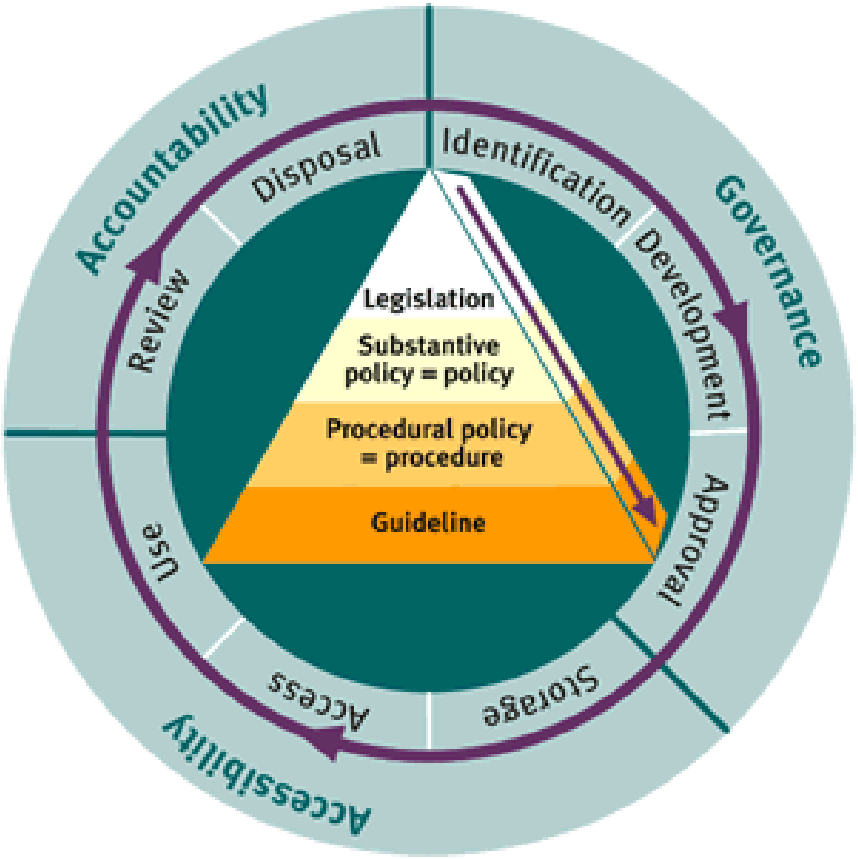
What is the purpose of policy?

- Policy as a method of risk management
  - All applicants must have passed the entrance examinations and the qualifying interview to be conducted by the Program Coordinator/ Director
  - All cases must be referred to RITM for diagnostic testing

What is the purpose of policy?

- Policy as a rule
  - Grants are good for one year and are reviewed every calendar year for satisfactory performance.
- Policy as an aid to program effectiveness
  - Reporting & supervisory requirements
  - Work load conditions
  - Policies on hiring, promotion, renewal, etc

Types of Policy in relation to Management Functions



Legislation: Law made by parliament or parliament's delegate (eg Governor in Council). In contrast to common law and equity, are made by courts.

Substantive Policy (Policy): Outlines what government/a department intends to do through stated plans of action. Has highest level of goals and includes statements of values. Has a timeframe.

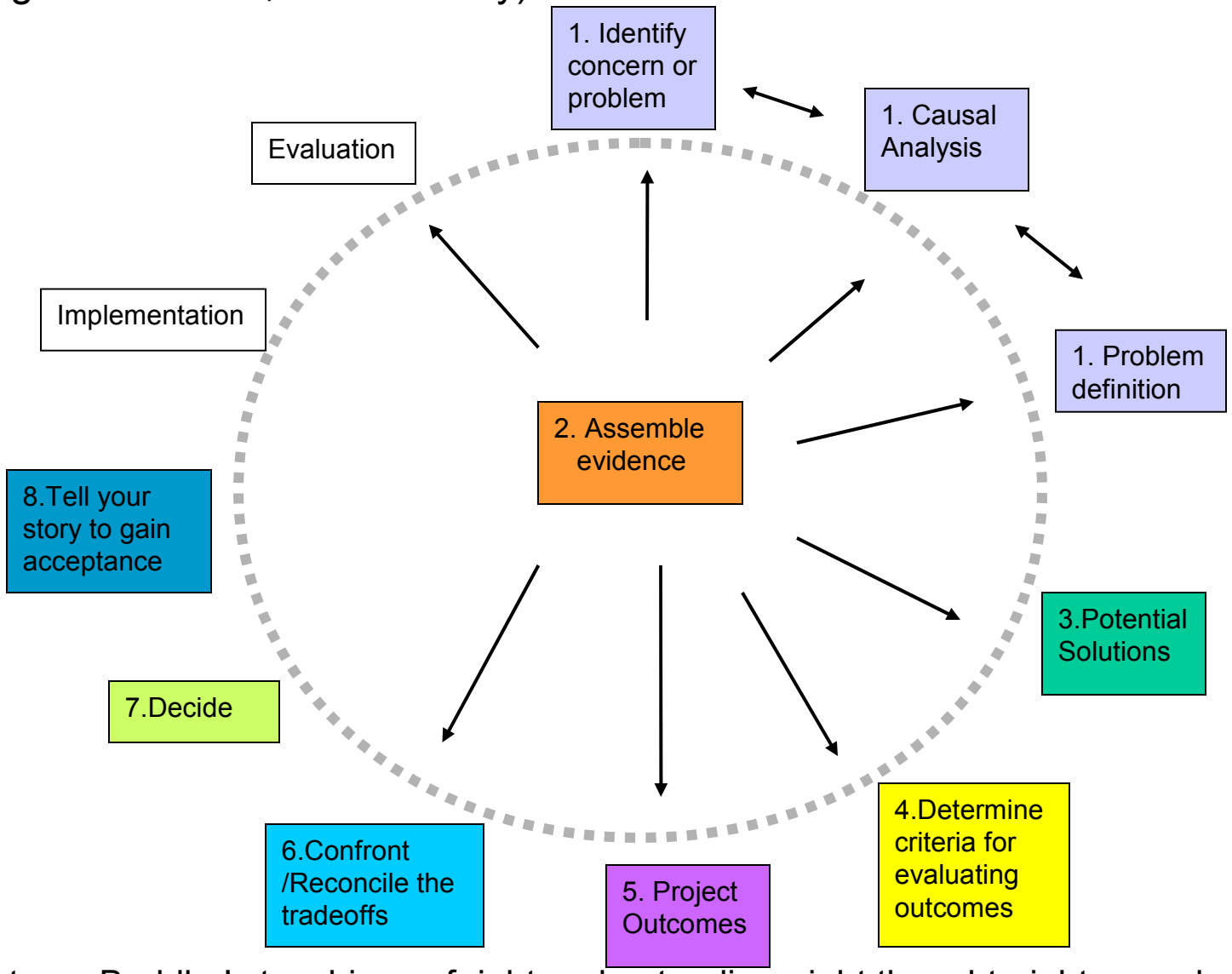
Procedural Policy (Procedure): Relate to specific area stating how something will be done and by whom. Concern internal operations. Can be administrative response to regulatory requirements and/or policy.

Guideline: Non-binding information that assists inexperienced user to undertake a procedure. User may act at variance as long as required outcome is reached.

education.qld.gov.au/strategic/eppr/

The Eight-Fold Path of Policy Analysis

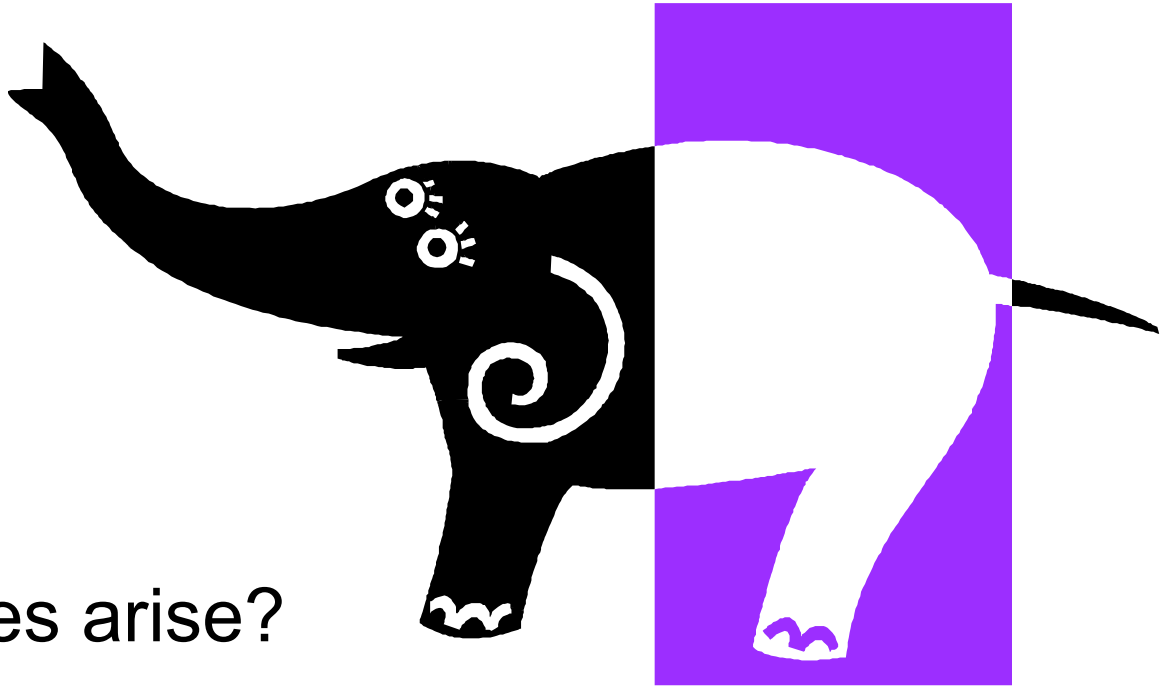
(Prof Eugene Bardach, UC Berkeley)



From Gautama Buddha's teachings of right understanding, right thought, right speech, right action, right livelihood, right effort, right meditation and right concentration.

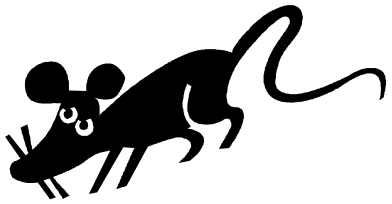
Step 1: Problem Analysis

Identifying
the concern
or problem

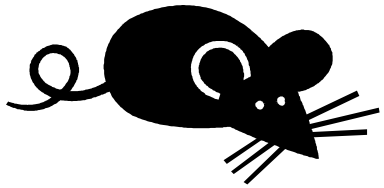


- How do issues arise?
- How do issues get on the agenda?
- How do issues get prioritised?
- Who sets the agenda? priorities?

Step 1: Problem Analysis



- Is it a problem relating to
  - risk factor, disease or condition?
  - the intervention?
  - service provision?
  - program implementation?



- Whose perspective? Whose values?
- Which framework?
  - Technical or scientific
  - Economic
  - Social
  - Political
  - others

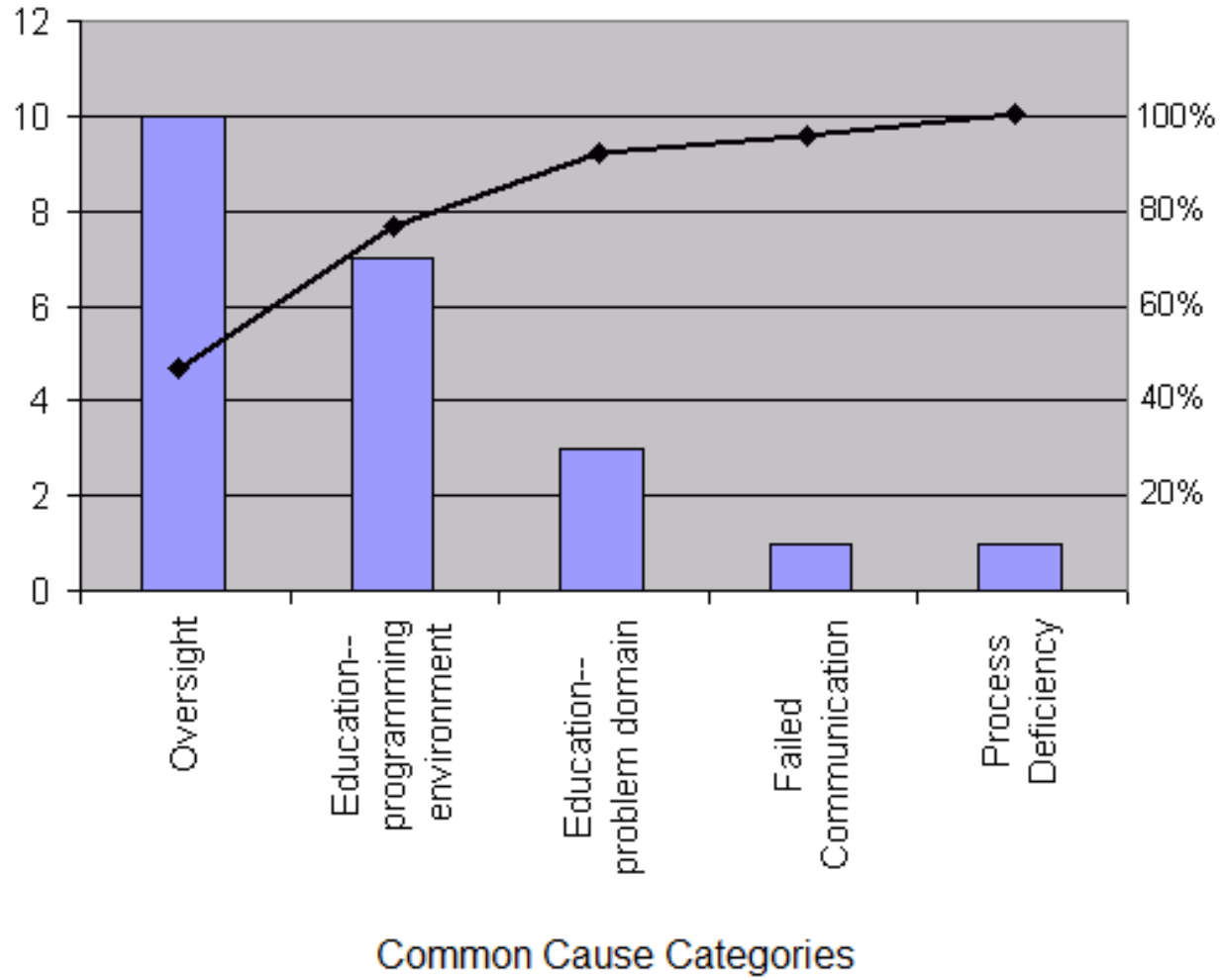
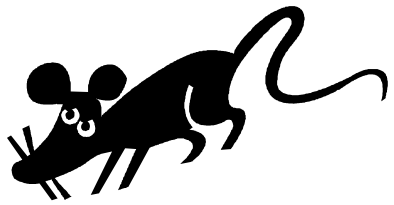
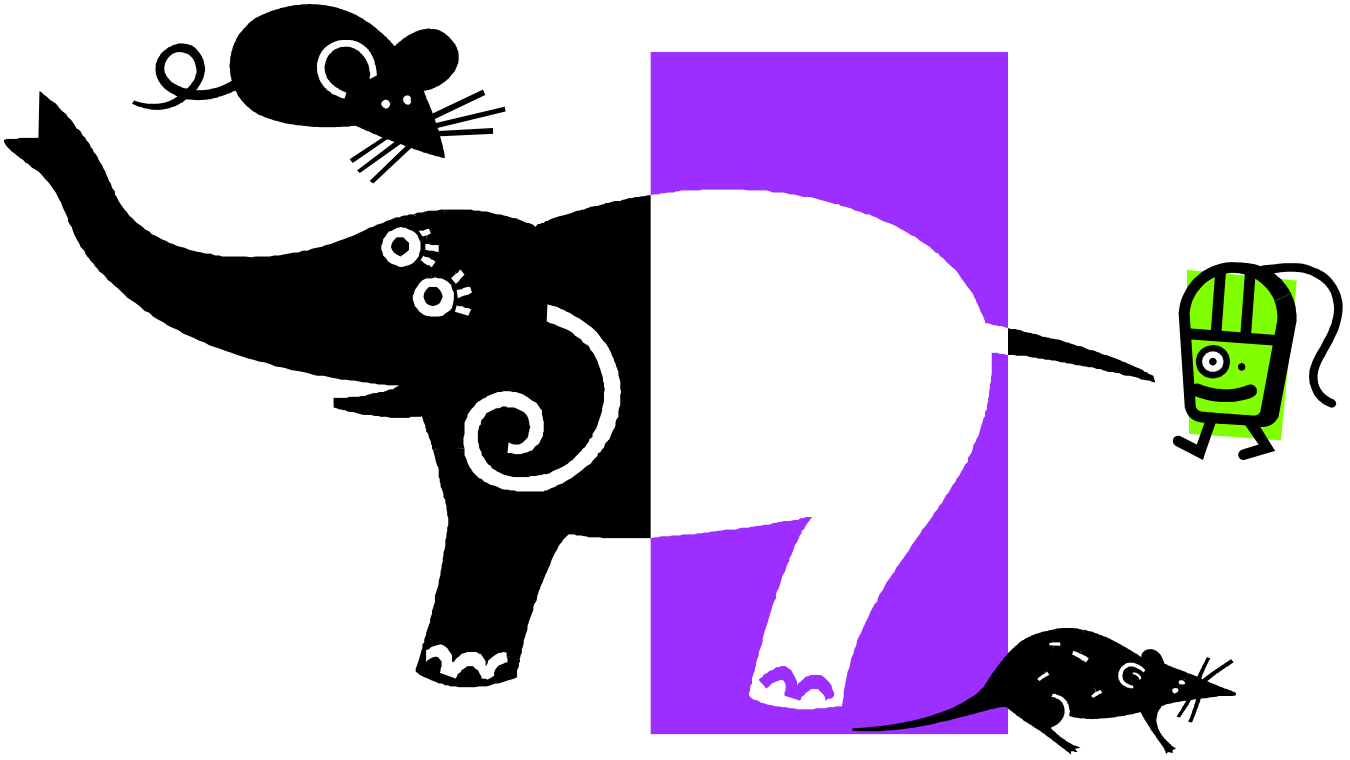


Figure 49. Pareto Diagram

Step 1: Problem Analysis



Defining the problem: whose perspective?



Step 2: Assemble the evidence

- Nexus of research and policy

Data → Information → Evidence

- Looking for &/or generating relevant data
  - Health Technology Assessment
  - Operations Research
- Assessing the quality of data - explicit & comprehensive
  - Systematic reviews: Cochrane
- Synthesizing the data
  - Meta-analysis

HTAs, systematic reviews and meta-analysis

- Health technology assessment - systematic assessment of the technical properties, effectiveness, safety, applicability as well as economic, ethical, legal and societal effects of drugs, devices, health care procedures, programs or systems.

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- Systematic review - overview of primary studies that used explicit and reproducible methods to estimate treatment effectiveness.
- Meta-analysis - mathematical synthesis of the results of two or more primary studies that addressed the same hypothesis in the same way


Health technology assessment
Legal, ethical societal, economic impact
Systematic review
Effectiveness, safety
Meta-analysis

Diagram 1: Ideal Time for HTA

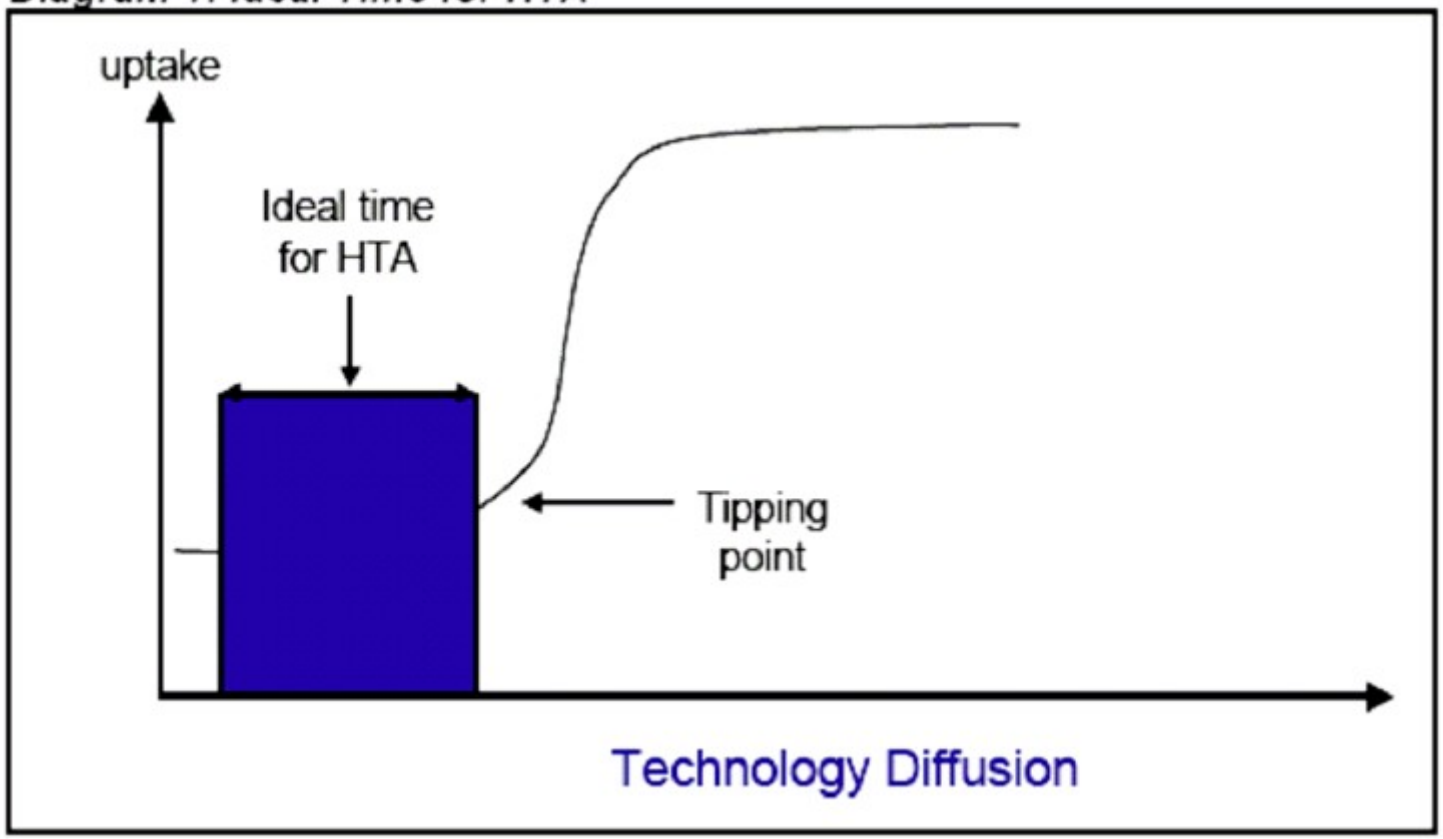
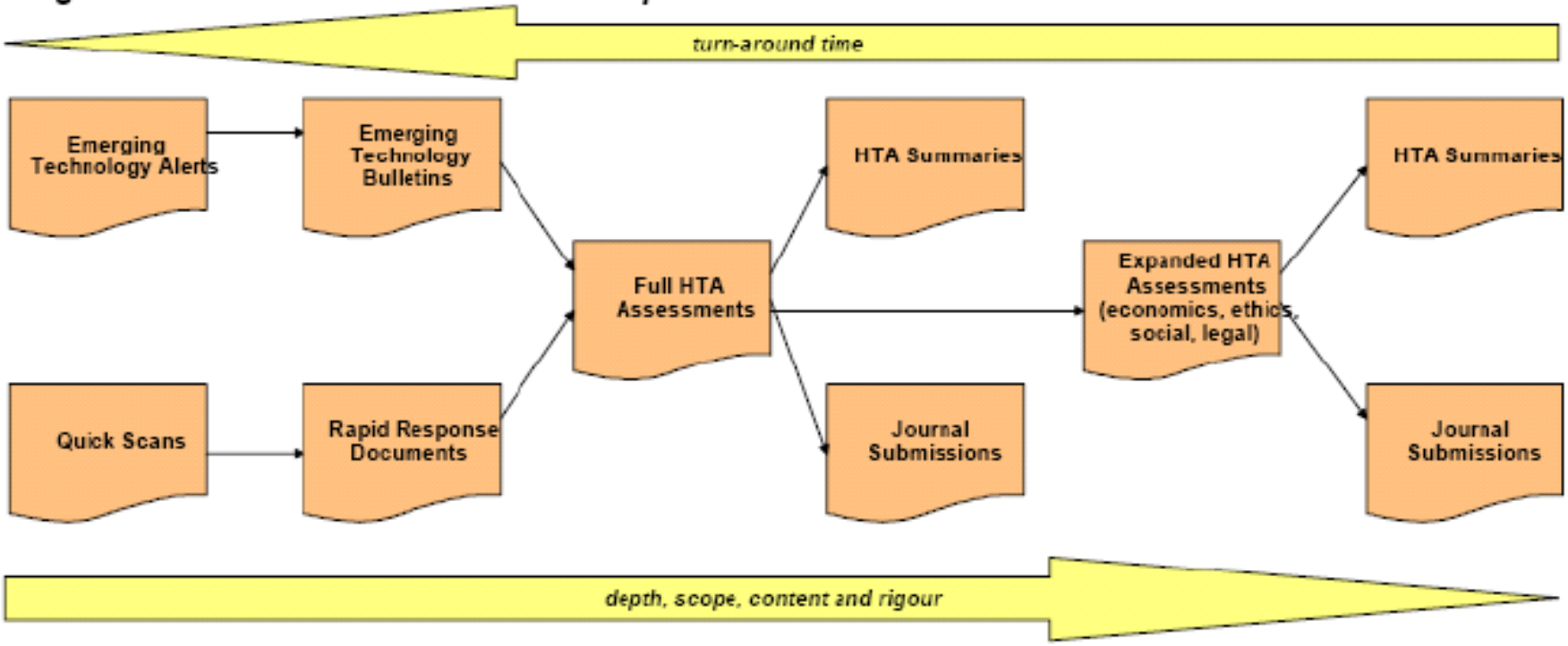
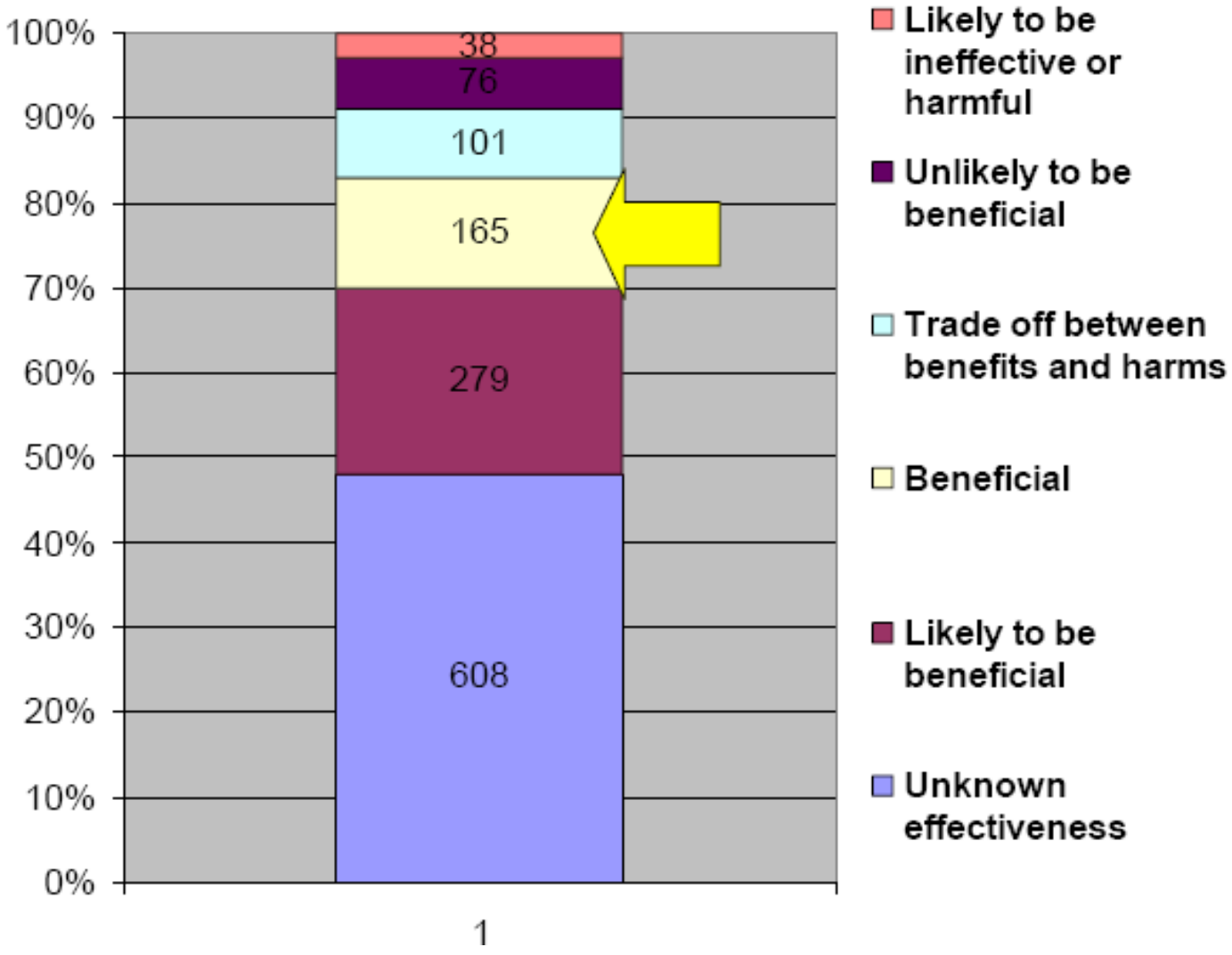


Diagram 3: Assessment Time Versus Scope



From CCOHTA 2003-2004 Business Plan

Need for research translation



The need for HTA

CARE THAT TOOK TOO LONG TO DISCARD

- Bed rest after heart attack
- Protracted rest for acute, uncomplicated back pain
- Acid inhibitors for functional dyspepsia
- Preventive extraction of wisdom teeth that have not erupted
- Neuroleptics for anxiety in non-psychotic elderly
- Routine chest X-ray or ECG before surgery

CARE THAT TOOK TOO LONG TO BE ADOPTED

- Aspirin after AMI or stroke
- ACE inhibitors after heart failure or heart attack
- Treatment to prevent blood clotting before major surgery
- Thrombolytic therapy after AMI
- Beta blockers after AMI
- Smoking cessation counseling
- Brief intervention for at-risk drinkers

Examples taken from Jörgen Malmquist, Lars Werkö, Mona Britton, Thomas Ihre, Susanna Axelsson, Ingegerd Mejåre, Juliette Säwe, and Åke Andrén-Sandberg

Advantages of systematic reviews

- Explicit methods, pre-digested information
- May reduce delay between discovery & implementation
- Assesses generalizability & consistency issues
- Heterogeneity may raise issues for further research
- Quantitative summary (meta-analysis) increases precision of results

Table 1 An example of a typology of evidence (example refers to social interventions in children) (adapted from Muir Gray[24])

Research question	Qualitative research	Survey	Case-control studies	Cohort studies	RCTs	Quasi-experimental studies	Non experimental evaluations	Systematic reviews
Effectiveness Does this work? Does doing this work better than doing that?				+	++	+		+++
Process of service delivery How does it work?	++	+					+	+++
Salience Does it matter?	++	++						+++
Safety Will it do more good than harm?	+		+	+	++	+	+	+++
Acceptability Will children/parents be willing to or want to take up the service offered?	++	+			+	+	+	+++
Cost effectiveness Is it worth buying this service?					++			+++
Appropriateness Is this the right service for these children?	++	++						++
Satisfaction with the service Are users, providers, and other stakeholders satisfied with the service?	++	++	+	+				+

Types of questions for Systematic Reviews

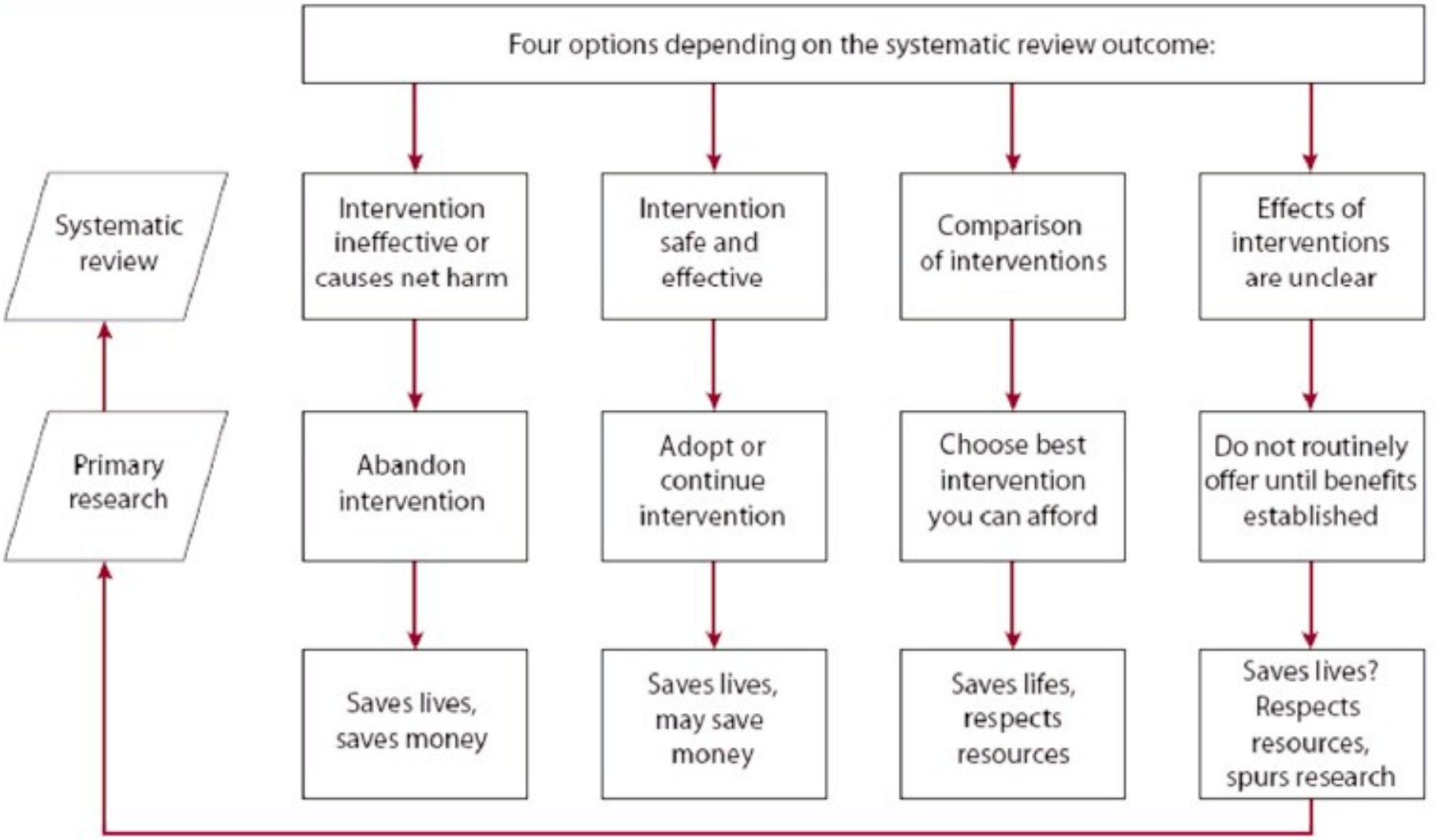
- Effectiveness
- Screening & diagnosis
- Exploring risk or protective factors
- Observational associations between intervention & outcomes
- Questions about prevalence
- Questions about meanings & process
- Methodological questions
- Economic questions

From Petticrew & Roberts, 2005

Hierarchy of evidence when evaluating effectiveness

Level	*Type of evidence*
1	*Systematic reviews of all relevant RCTS*
2	*At least 1 properly designed RCT*
3-1	*Well-designed non-random control trials*
3-2	*Well-designed cohort or case-control trial preferably from >1 research group or center*
3-3	*Multiple time series w/ or w/o intervention; dramatic results from uncontrolled trial*
4	*Expert opinion, consensus statement*

Figure 1.15 Value and impact of systematic reviews



Source: Volmink J, Murphy C, Woldehanna S. Towards an evidence-based approach to decision making. In: *Making childbirth safer through evidence-based care*. Global Health Council, Washington DC, USA, 2002.

Inferring from the evidence

Strength

- Biological plausibility
- Other forms of evidence
- Concordance with related reviews

Applicability

- Biological differences
- Economic and cultural differences
- Differences in baseline risk

GRADE scores for quality of evidence

- High – further research is *very unlikely* to change our confidence in the estimate of effect
- Moderate – further research is *likely* to have an important impact on our confidence in the estimate of effect and may change the estimate
- Low – further research is *very likely* to have an important impact on our confidence in the estimate of effect and is likely to change the estimate
- Very low – any estimate of effect is very uncertain

Look for differences, not just similarities among studies

- Systematic reviews usually bring together studies that were performed
  - by different people
  - in different settings
  - in different countries
  - on different people
  - in different ways
  - for different lengths of time
  - to look at different outcomes
  - ... and these aren't the only differences.
- Clinical diversity
- Methodological diversity
- Statistical heterogeneity

Trade-offs

- Evidence is not enough
- Adverse effects
- Costs
- Unintended consequences
- Avoid value statements!
- Uncertainty rules! Beware of accepting the alternative hypothesis instead of rejecting the null.

Concluding from the evidence

- Does the intervention work at all? In which patients? In what circumstances?
- What have we learned from this review that can be applied to clinical practice?
- What have we learned from this review about the need for further evaluation and research?

Beware

- Absence of evidence of effectiveness vs evidence of absence of effectiveness.
- Mismatch between evidence and conclusions
- More research is needed.

Main reference:
http://www.cochrane-net.org/openlearning/HTML/mod0.htm

Step 3: Potential Solutions

- Are there options or alternatives?
  - Include “do nothing” or status quo
- Context is paramount
- Start comprehensively, end up focused
- If possible limit to 2-3 options

Step 4: Define criteria for evaluating outcomes

How will you decide which option to select (or recommend or support)?

- Technical/ Scientific: safety, efficacy, effectiveness
- Economic: costs, cost-effectiveness, efficiency benefits vs risks/consequences
- Ethical: autonomy, non-maleficence, justice
- Social: equity, norms, weigh values
- Administrative/ Organizational: feasibility
- Legality: consistency with existing rules/ standards
- Political acceptability: too much or too little support

Criteria for evaluating outcomes

Policy Options	Criteria					
	Technicals *afety, efficacy, effective-ness*	Economic *cost, cost effective-ness*	Ethical *autonomy, non-malefi-cence*	Social *equity norms*	Adminis-trative / Organiza-tional *feasibility*	Political / Legal
A						
B						
C						

Step 5: Define Outcomes

- Project costs (include system or management costs)
- Consider risks and consequences
- Use evidence
- May need to develop outcomes matrix

Figure 1. Think Tank outcomes matrix

Outcomes matrix: The themes for *Extreme natural hazards in Australia*:

Integrated information about multiple hazards Theory and practice	**Prevention**	**Preparedness**	**Response**	**Recovery**
A – Ocean/coastline research on resources and infrastructure Tsunamis, coral bleaching, fisheries, storms, coastal erosion				
B – Atmospheric, cosmic research on resources and infrastructure Cyclones, tornados, asteroids/ meteorite strike, space, volcanic ash				
C – Terrestrial research on resources and infrastructure Droughts, floods, earthquakes, landslides, fires				
D – Biological research on resources and infrastructure Extinctions, population biology, pandemics, pests, disease				

Step 6: Confront & reconcile trade-offs

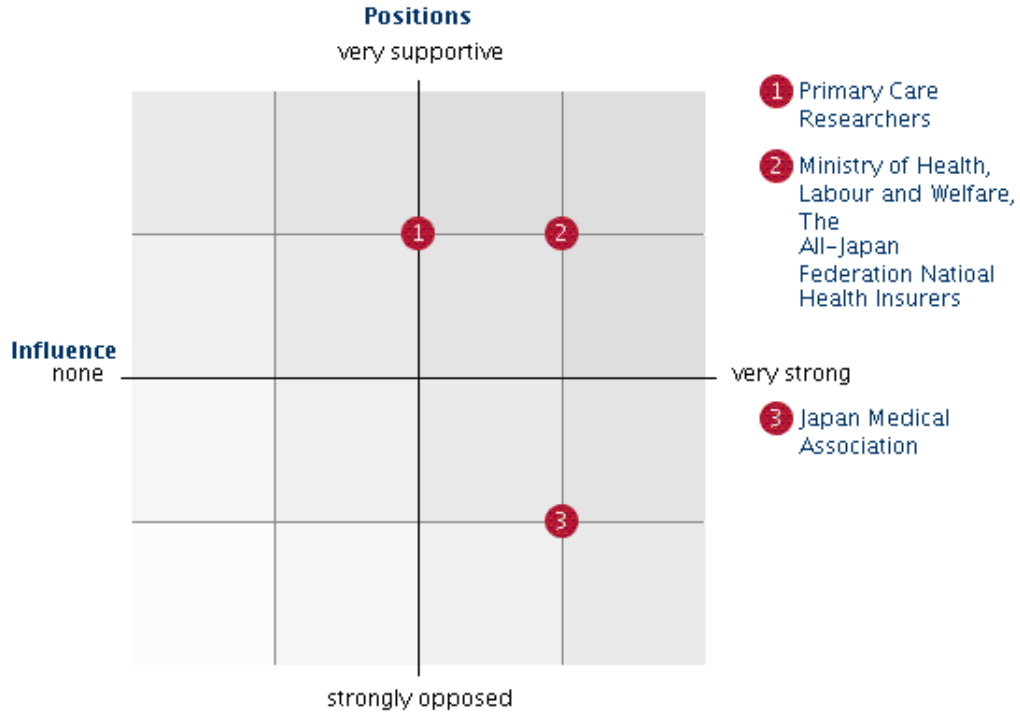
- Compare to “do nothing”
- Use evidence to project outcomes & scenarios
- Rank alternatives or options based on your willingness to accept trade-offs
- “Win-win” scenario is possible

Actors and positions

Description of actors and their positions

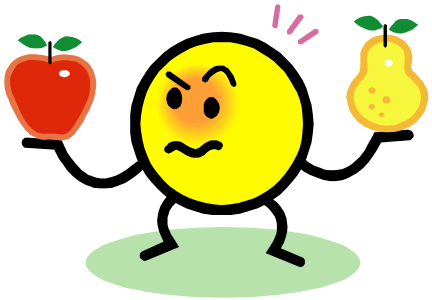
Government			
Ministry of Health, Labour and Welfare	very supportive		strongly opposed
Providers			
Japan Medical Association	very supportive		strongly opposed
Payers			
The All-Japan Federation Natioal Health Insurers	very supportive		strongly opposed
Scientific Community			
Primary Care Researchers	very supportive		strongly opposed

Positions and Influences at a glance



Ryozo Matsuda: "Arguments for Instituting "General Physicians"". *Health Policy Monitor*, April 2008. www.hpm.org/survey/jp/a11/1

Step 7: Decide



- If you are the decision-maker, how will you decide?
- Consider plausibility (are outcomes plausible? are the scenarios logical or based on reliable evidence?)
- Ask “Why not?” (can counter-arguments be overcome? at what cost?)

Step 8: Report & Promote (telling your story)

Challenges in research use

Lavin J, 2009

- Research not valued as source of information (Environment)
- Research is not relevant (Production)
- Research is not easy to use (Translation)

Challenges in translation

a. Research isn't communicated effectively [Push]
b. Research isn't available when policymakers need it and in a form that they can use [Facilitating pull]
c. Policymakers lack mechanisms to prompt them to use research in policymaking [Pull]
d. Policymakers lack fora where policy challenges can be worked through with key stakeholders [Exchange]

Research Translation

Review-
derived products
(e.g., policy briefs)

Systematic reviews of research

Applied research studies, articles, and reports

Basic, theoretical and methodological innovations

Writing policy briefs 1

- Who is your audience?
- What 'hook' will capture their attention? Use this as your opening statement

Everyday, on average, 7 Filipino mothers die giving birth and 70 Filipino newborns never see their second day of life[1].

[1] DOH Safe Motherhood Program Report 2007

The next death could come from your province or municipality. * The Philippine MMR needs to be reduced from 162 to below 100 by 2010, and to 52 by 2015. **

* for LGU audience ** for program manager/staff audience

Writing policy briefs 2

- Suggested format
  - 1 page of key messages
  - 3 to 4 pages executive summary
  - 25 page technical brief
- What is the problem?

The Philippine MMR needs to be reduced from 162 to below 100 by 2010, and to 52 by 2015

- How is the problem currently characterized? (indicators, comparisons, alternative framings)

Writing policy briefs 3

- Describe the 3 policy options
  1. Community-based emergency response teams
  2. Accreditation of community health care teams
  3. Strengthening supervisory links between DOH & PHOs, and between PHOs & MHOs
- Characterize what can be reasonably expected from these options
- Describe barriers to implementation

Writing policy briefs 4

- In the 25 page technical summary:
  - Characterization of the harms, benefits, costs, cost effectiveness
  - Description of the evidence
  - Description of applicability & equity considerations, including stakeholder perspectives
  - List of references, literature review

Merit review of the policy brief

- One researcher & one policy maker
- Assessment form (handout)
- Revise if needed
- Prepare for policy dialogue

Policy Dialogue

- An off-the-record deliberation of the policy options involving the 5 most crucial persons, fairly representative of the stakeholders involved with the outcome, informed by a pre-circulated policy brief
- Discussion is about full range of factors (criteria for outcomes), not just research findings
- Skilled facilitation – Chatham House rule
- Not aiming for consensus, but to raise issues

Chatham House Rule

"Participants are free to use the information received during the meeting, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed"

Broad role category	Specific role category
Policymaker	Public policymaker (i.e., elected official, political staff or civil servant) in the national government
	Public policymaker (i.e., elected official, political staff or civil servant) in a sub-national government (e.g., province/state or a district only if it has independent policymaking authority)
	Manager in a district/region (if it does not have independent policymaking authority)
	Manager in a healthcare institutions (e.g., hospital)
	Manager in a non-governmental organization
Stakeholder	Staff/member of a civil society group
	Staff/member of a health professional association or group
	Staff of a donor agency (e.g., European Community, Swedish International Development Agency) or international organization (e.g., World Health Organization)
	Staff of a pharmaceutical or other biotechnology company
	Representative of another stakeholder group
Researcher	Researcher in a national research institution in the same jurisdiction
	Researcher in a university in the same jurisdiction
	Researcher in another institution in the same jurisdiction
	Researcher located outside the jurisdiction
Other	

Revise policy if necessary
…then Implement, Monitor and Evaluate the policy (another workshop ☺)

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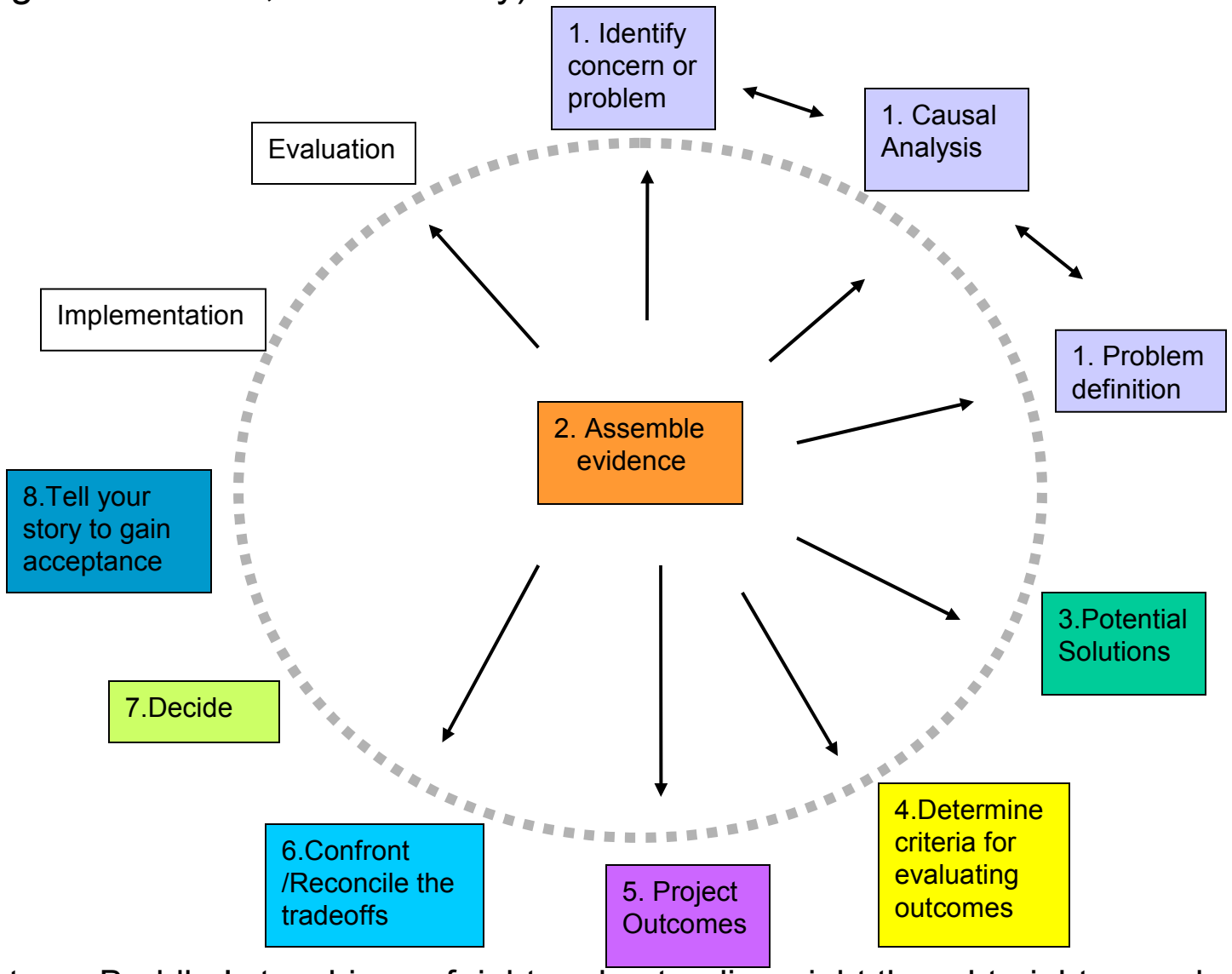

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