Bridging the Research-Policy-Gap in Public Health

WHO Initiative to Estimate the Global Burden of Foodborne Diseases

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Department of Food Safety and Zoonoses

World Health Organization
Structure

1. Background on evidence-informed policy-making in public health
2. Fostering evidence-informed policy-making in food safety
3. EVIPNet (Evidence-Informed Policy Networks)
“There is nothing a politician likes so little as to be well informed, it makes decision making so complex and difficult.”

John Maynard Keynes
What is evidence-informed policy-making?

Evidence-informed policy: “helps people make well informed decisions about policies, programmes and projects by putting the best available evidence from research at the heart of policy development and implementation’ (Davis, 2003)

Evidence is only one factor influencing policy-making.
Why is evidence-informed policy-making important?

In the context of:
(a) Finite resources
(b) Raising costs of health services as % GDP
(c) Increasing pressure to justify choices in expenditure

Decision-makers require guidance to improve global public health
Research not a "LUXURY":
"If you are poor, actually you need more evidence before you invest, rather than if you are rich."

Dr Hassan Mshinda
Ifakara Centre, Tanzania
Know-Do Gap

* 264 years between James Lancaster’s discovery that lemon juice prevented scurvy and the British Navy’s decision to ensure an adequate supply of citrus fruits on navy ships.

* 30–40% percent of patients in the United States and Europe fail to receive cost-effective interventions justified by the best-available scientific evidence.


(Sources for these numbers are given on the report web site: www.who.int/rpc/wr2004)
How to integrate research in policy?

"...efforts by researchers and by decision makers seem to proceed largely independently. Both have their own (often misplaced) ideas about the other's environment. Opportunities for ongoing exchange and communication are few.

It is like two people trying to assemble a jigsaw puzzle, each with half the pieces but each working in a separate room."

How to increase research up-take?
Some evidence...

Review of 24 studies that asked over 2000 policymakers what facilitated or prevented their use of research evidence

Innvaer et al. J Hlth Serv Res Pol 2002;7:241

• **#1 facilitator of research use:** personal contact between researchers and policy-makers (13/24)

• **#1 barrier to research use:** absence of personal contact between researchers and policy-makers (11/24)
Some additional evidence...

<table>
<thead>
<tr>
<th>Facilitators</th>
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<tbody>
<tr>
<td>Personal contact (13/24)</td>
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<td>Timely &amp; relevance (13/24)</td>
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<td>The inclusion of summaries with policy recommendations (11/24)</td>
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<td>Good quality research</td>
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Innvaer et al. J Hlth Serv Res Pol 2002;7:241
Knowledge Translation is...

... a **research process** to promote the use of research evidence into policymaking, taking into account multiple factors ("political environment", resources, regulations/legislation, tacit knowledge)

*Source:* Panisset U. “New methodologies and practices to improve evidence to policy in Low and Middle Income Countries”. *Presentation at the FERG COUNTRY STUDIES TASK FORCE MEETING FAO, ROME 10-12 JUNE 2009.*
Approaches increasing research utilization

Approach 1: Push efforts

Approach 2: User-pull efforts

Approach 3: Exchange efforts

Approach 4: Integrated efforts

WHO’s Mission

“...shall be the attainment by all peoples of the highest possible level of health.”

Source: WHO’s Constitution

It is responsible for:
- providing leadership on global health matters,
- shaping the health research agenda,
- setting norms and standards,
- **articulating evidence-based policy options,**
- providing technical support to countries, and
- monitoring and assessing health trends.

Source: WHO
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What are "Foodborne Diseases"?

Bacteria
Campylobacter: Guillain Barré Syndrome, Arthritis
Salmonella: Guillain Barré Syndrome, Arthritis, Septicaemia, Meningitis
Listeria: Meningitis, Septicaemia, Miscarriage
E.coli: Renal failure

Chemicals
Acrylamide: Cancer
Arsenic: Cancer
Aflatoxin: Cancer
Lead: Mental retardation
Dioxins: Cancer

Parasites
Pork tapeworm: Epilepsy
Toxoplasma: Retinopathy
Trichinella: Multi-organ failure

Other
Allergens: Anaphylactic shock

• Commonly transmitted through food
• Can be caused by: pathogens (bacterial/viral), chemicals, parasites
• Acute and chronic
• Long-term complications
• Morbidity, disability, and mortality

To foster global health security
To promote economic growth and development
To strengthen evidence-based policy-making

Estimating the Global Burden of Foodborne Diseases

World Health Organization
www.who.int/foodborne_diseases
Foodborne diseases are a development issue

4 out of 8 MDGs affected directly by progress with food safety
How big is the burden of foodborne diseases?

Reported human cases

Actual human disease burden

What we know from surveillance data

What we need to know
WHO's response: Initiative to Estimate the Global Burden of Foodborne Diseases
Foodborne Diseases – a Growing Risk

Foodborne diseases encompass a wide spectrum of illnesses and are a growing public health problem worldwide. They are the result of ingesting contaminated foodstuffs, and range from diseases caused by a multitude of microorganisms to those caused by chemical hazards. Recent global developments are increasingly challenging international health security. These developments include the growing industrialization and trade of food production, the rapid urbanization associated with a more frequent food preparation/consumption outside the home and the emergence of new or antibiotic-resistant pathogens.

The most common clinical presentation of foodborne diseases takes the form of gastrointestinal symptoms but such diseases can also lead to chronic, life-threatening symptoms including neurological, gynecological or immunological disorders as well as multiorgan failure, cancer and death.

The global burden of foodborne diseases and its impact on development and trade is currently unknown. Reliable epidemiological data are, however, urgently needed to enable policy-makers as well as other stakeholders to:

- appropriately allocate resources to foodborne disease, prevention and control efforts;
- monitor and evaluate food safety measures;
- develop new food safety standards;
- assess the cost-effectiveness of interventions; and
- quantify the burden in monetary costs.

As a response to the current data gap, the WHO Department of Food Safety, Zoonoses and Foodborne Diseases (FOS) launched a new Initiative to Estimate the Global Burden of Foodborne Disease in collaboration with multiple partners.
Advancing food safety initiatives

1. URGES Member States:¹

(5) to establish or improve the evidence base for food safety through systematic efforts on disease burden estimation and surveillance, and through comprehensive risk and risk-benefit assessment, and to provide support for international activities in these areas, in particular, WHO’s initiative to estimate the global burden of foodborne diseases from all major causes (microbiological, parasitic and chemical);

2. REQUESTS the Director-General:

(3) to continue to provide global leadership in providing technical assistance and tools that meet the needs of Member States and the Secretariat for scientific estimations on foodborne risks and foodborne disease burden from all causes;
## Objectives of the Initiative to Estimate the Global Burden of Foodborne Diseases

<table>
<thead>
<tr>
<th>Objective 1</th>
<th>To provide estimates on the global burden of foodborne diseases according to age, sex and regions for a defined list of causative agents of microbial, parasitic, and chemical origin.</th>
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<tbody>
<tr>
<td>Objective 2</td>
<td>To strengthen the capacity of countries in conducting burden of foodborne disease assessments and to increase the number of countries who have undertaken a burden of foodborne disease study.</td>
</tr>
<tr>
<td>Objective 3</td>
<td>Encourage countries to use burden of foodborne disease estimates to set evidence-informed policies.</td>
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FERG (Foodborne Disease Burden Epidemiology Reference Group) = scientific expert group appointed by & advising the WHO Director General
Approaches increasing research utilization

Approach 1: Push efforts
Producers/purveyors of research → Users of research

Approach 2: User-pull efforts
Producers/purveyors of research → Users of research

Approach 3: Exchange efforts
Producers/purveyors of research → One group of users of research

Approach 4: Integrated efforts
Producers/purveyors of research → Users of research → Knowledge translation platforms

Efforts to increase the up-take of evidence in food safety policy-making

FERG Country Studies Task Force

**Expected Results** (among others)

- **Researchers**
  - Tools for systematic burden of FBD studies
  - Capacity building Modules for conducting studies

- **Policy-makers**
  - Tools to increase research impact on policy
  - Capacity building Modules for knowledge translation

**Persons**
- Researchers
- Policy-makers

**Modules**
- Tools for knowledge translation
- Tools for systematic burden of FBD studies

**Processes**
- Exchange
- Effective access to Data
- Incentives to use Data
- Increase BoD understanding and use

**Knowledge**
- Reliable Data
- Improving “usability” (Relevance, time and simplicity)
- Effective & targeted communication
### Expected results at country level

<table>
<thead>
<tr>
<th>Input &amp; activities</th>
<th>Outputs</th>
<th>Outcomes</th>
<th>Impact</th>
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</thead>
<tbody>
<tr>
<td>Protocol for policy analysis/context mapping</td>
<td>Final protocols, tools &amp; training modules</td>
<td>Improved KT capacity</td>
<td>National leaders publicly express sustained concern for food safety</td>
</tr>
<tr>
<td>KTE tools and mechanisms</td>
<td>Increased knowledge on food safety policy making &amp; KT</td>
<td>Increased research access, understanding &amp; utilisation</td>
<td>M &amp; E of food safety measures</td>
</tr>
<tr>
<td>Training modules</td>
<td>Infrastructure for institutional collaboration</td>
<td>Continuous dialogue between researchers &amp; research users</td>
<td>Assess the cost-effectiveness intervention</td>
</tr>
<tr>
<td>Piloting in 4 countries</td>
<td>Policy-relevant, user-friendly research results</td>
<td></td>
<td>Dev of new food safety standards</td>
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<tr>
<td></td>
<td>Burden Report</td>
<td></td>
<td>Governments enacts policies &amp; implements on the basis of scientific food safety evidence</td>
</tr>
<tr>
<td></td>
<td>Pathway of influence</td>
<td></td>
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<tr>
<td></td>
<td>List of policy-relevant research needs</td>
<td></td>
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</tbody>
</table>
I collected my figures with a purpose in mind, with the idea that they could be used to argue for change. Of what use are statistics if we do not know what to make of them? What we wanted at that time was not so much an accumulation of facts, as to teach the men who are to govern the country the use of statistical facts.  

(Florence Nightingale)
Structure

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3. EVIPNet (Evidence-Informed Policy Networks)
58th World Health Assembly 2005

Member States

Urges Member States to transfer knowledge in support of evidence-based systems, and evidence-based health-related policies;

EVIPNET is an innovative mechanism designed to strengthen health systems in LMIC in fostering the systematic use of evidence in policy-making in low and middle-income countries.

EVIPNET promotes partnerships between policy-makers, researchers and civil society at country level.
EVIPNet partners envision a world in which policy makers in low- and middle-income countries use the best scientific evidence, contextualized to the reality of their nation, to inform policy making and policy implementation.
Country teams and regional and global support structures
Research synthesis, policy options briefs 1:3:25 formats
Country policy dialogues (safe harbor)
Capacity development & empowerment

Monitoring and evaluation - Development of new methodologies

Source: Panisset U. “New methodologies and practices to improve evidence to policy in Low and Middle Income Countries”. Presentation at the FERG COUNTRY STUDIES TASK FORCE MEETING FAO, ROME 10-12 JUNE 2009.
EVIPNet Into Practice

1. Setting Priorities for policy/programs
2. Seeking Evidence for Options
3. Summary of evidence Policy brief
4. Deliberative Dialog + Final Policy brief
5. Implementation
6. Monitoring and Evaluation

Knowledge Transfer

EVIPNet

Source: www.paho.org
More than 32 Country teams + Regional & Global Networks

Source: Panisset U. “New methodologies and practices to improve evidence to policy in Low and Middle Income Countries”. Presentation at the FERG COUNTRY STUDIES TASK FORCE MEETING FAO, ROME 10-12 JUNE 2009.
Thank you!
Key KTPG products

- Input to CSTF work:
  - Country application document
  - Overview document for country studies
  - BoD protocol
- Protocols for PSA/context mapping & related training materials (FERG4)
- Global context mapping
- KT tools (issue and policy briefs)
- Systematic reviews of interventions
The Global Burden of Foodborne Diseases

Tanja Kuchenmüller
Food Safety and Zoonoses
World Health Organization (WHO)
Geneva

How safe is our food?
Piloted in four countries

FERG Burden of Foodborne Diseases Pilot Country Studies

Albania
Uganda
Japan
Thailand

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization
Map Production: Public Health Information and Geographic Information Systems (GIS)
World Health Organization

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Capacity building Modules for conducting studies Tools for systematic burden of FBD studies Tools to increase research impact on policy Researchers Policy-makers

Efforts to increase the up-take of evidence in food safety policy-making

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Users of research

Knowledge translation platforms

<table>
<thead>
<tr>
<th>Elements of evidence-informed policymaking</th>
<th>Common policymaking problems</th>
<th>Evidence-informed health policymaking can address these problems through more systematic and transparent:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supporting evidence-informed policymaking</td>
<td>Lack of organisational arrangements to support the use of research evidence and processes for setting priorities for research evidence</td>
<td>Organisational arrangements to support the use of research evidence; and processes for setting priorities for supporting the use of research evidence</td>
</tr>
<tr>
<td>Identifying needs for research evidence</td>
<td>Lack of clarity over needs for research evidence</td>
<td>Clarification of research evidence needs to define problems, frame policy options and address how policy options will be implemented</td>
</tr>
<tr>
<td>Finding and assessing evidence</td>
<td>Haphazard or biased use of research evidence to inform health policy decisions</td>
<td>Approaches to finding and assessing research evidence</td>
</tr>
<tr>
<td>Going from research evidence to decisions</td>
<td>Inadequate engagement of stakeholders and decisions that are not well-informed by research evidence</td>
<td>Approaches to engaging and informing stakeholders and using research evidence to inform decisions</td>
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</tbody>
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