



DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION



The Critical Importance of the 'Evidence Debate' for Health Promotion

Singapore Gateway Event to
the 18th World Conference on
Health Promotion & Health
Education



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What is the “evidence debate”

- Some believe that the future success of health promotion will depend upon its ability to demonstrate **scientifically** that it is an effective field
- In contrast are those who believe that evidence, the very word, is **inappropriate** to the field of health promotion.
- Between these two extremes are those who question the appropriateness of some forms of evidence and look at the wider role of evidence in terms of knowledge development in the field.

The three 'Es'*

Evidence



Evaluation



Effectiveness

*very different animals

Evidence vs. Evaluation

- **Limited term**
- **Implies rigor**
- **Strict rules**
- **Proof difficult**
- **Scientific literature**
- **Comprehensive term**
- **Anything can be evaluated**
- **Loose rules**

Effectiveness

- Effectiveness is a broad, loosely defined term, generally linked to the notion of “outcomes”
- Notion that effective health promotion leads to changes in the determinants of health
- Underlying epistemology of “outcomes” remains complicated

Search for evidence depends on

- Your point of view
- Your training
- Your view of “science’
- Your view of “knowledge”
- Your context
- Your way of working

**Evidence does not exist as a
“Thing in itself”**

Dominant Patterns of Work: Their impact on evidence approaches

Epidemiology

- Methods
- Action
- Theory

Health Promotion

- Action
- Concepts and Principles
- Methods

Three Paradigm Questions*

- **Ontological:** What is the nature of the knowable? Or, what is the nature of reality?
- **Epistemological:** What is the nature of the relationship between the knower (the inquirer) and the known (or knowable)?
- **Methodological:** How should the inquirer go about finding out about the world?

Underlying Theoretical Orientations for Methods

- **Positivist:** (**EPI Approach**) Emphasis on natural science methodology, quantitative methods, hypothesis testing, and objectivity.
- **Idealist:** Emphasis on personal meanings and constructions, qualitative methods, emergent design, and making values explicit. A tendency towards individual-level focus with some emphasis on system-level issues.
- **Realist:** Emphasis on system-level models of underlying process. Issues of power and control frequently made explicit. Critical tradition adds action component.
- **Participatory/Action:** (**HP Approach**) A concern with power and control. Frequently overtly political in values and orientation.

Where is the evidence found?

- Refereed science literature
- General published literature
- Fugitive literature
- Internet
- The community
- Other

Evidence Iceberg



RCTs

Comparison Studies

Observational Studies

Less Formal Observational Studies

Participatory Studies

Fugitive Literature

Hearsay

“Rules of Evidence”

- **Tied to disciplines, not projects: Scientific disciplines, e.g. physics, biology, etc. have their standards for what constitutes proof of causation, effect, etc.**
- **The appropriate “scientific method” is a product of historical development and the characteristic “observables” in the discipline: it is culturally bound**
- **Many community-based health promotion projects are not discipline-based, but represent “fields of action”**

Complexity and Evidence

- Most community-based interventions are a complex mixture: many disciplines, many variables of varying measurement difficulty, and dynamic changing contexts
- Understanding multivariate fields of action requires a mixture of methodologies and considerable time to unravel any causal and/or meaningful relationships
- Culture of communities is important

Examples of efforts to produce evidence and guidelines for evaluation of community interventions

- **E(EURO)WG**
Europe/Canada/USA
- **CPSTF USA, Community**
Preventive Services Task Force,
also called the “Community
Guide”
- **IUHPE EU, GPHPE**
- **Many others**

Evaluation in Health Promotion Principles and Perspectives

I. Rootman, M. Goodstadt, B. Hyndman,
D. McQueen, L. Potvin, J. Springett
and E. Ziglio, (Editors)

WHO Regional Publications, European
Series, No.92, WHO 2001

Fundamental Issues and Challenges in Evaluation

- Social programming
- Valuing
- Knowledge construction
- Knowledge use
- Practice

Definition of Evaluation

- “Evaluation is about the systematic examination and assessment of features of a programme or other intervention in order to produce knowledge that can be used by stakeholders for a variety of purposes”

From the EWG group

Principles of Evaluation in Health Promotion

- Participatory
- Introduced early and integrated into all stages of the initiative
- Empowering

From the EWG group

GUIDE TO
COMMUNITY
• Preventive Services ←

Methods Used in
Development of the
Community Guide

Community Guide “Basics”

- Systematic reviews of literature
 - By researchers, methodologists, and practitioners
- Evidence-based recommendations
 - Based on the evidence evaluated by an independent, non-federal Task Force

Who Is the Audience?

- People who plan, fund, or implement public health services and policies for communities and healthcare systems
 - Public health departments
 - Healthcare systems and providers
 - Purchasers
 - Government agencies
 - Community organizations

What Will Be Reviewed in the Community Guide?

Risk Behaviors

- Tobacco Use*
- Alcohol Abuse/Misuse
- Other Substance Abuse
- Poor Nutrition
- Inadequate Physical Activity*
- Unhealthy Sexual Behaviors

Specific Conditions

- Vaccine-Preventable Diseases*
- Pregnancy Outcomes
- Violence
- Motor Vehicle Injuries*
- Depression
- Cancer
- Diabetes*
- Oral Health*

The Environment

- Sociocultural Issues*

*Currently Available

Systematic Reviews of Public Health Interventions are Useful

- Methods first developed by social scientists (e.g., Glass, '76)
- Distill and summarize large and diverse bodies of evidence
- Reduce errors and biases in interpretation
- Make assumptions explicit

Systematic Reviews Are Not:

- Limited to randomized controlled trials
- Limited to healthcare interventions
- Restricted to a “biomedical model” of health

- Petticrew, 2001

Logic Models Organize Large
Numbers of Variable and
Complex Intervention Options

No Two Community Interventions Are Identical

- Carefully combining information about related but not identical interventions helps to
 - Fully represent an intervention construct
 - Enhance external validity and usefulness
 - Identify common aspects of effective interventions

Finding Relevant Evidence Is Difficult

- Databases and keywords are typically not well suited to find intervention studies efficiently
- Registries of studies are not usually available
- Requires
 - Database searches
 - Reviews of reference lists
 - Consultation with experts

To Assess Quality

- The Community Guide tends to use complementary results from a group of studies – as opposed to trying to find a small number of “best” studies – to maximize the aggregate internal and external validity of a body of evidence

Expanding Beyond the Randomized Controlled Trial

- Randomization often not appropriate or feasible
- Other approaches needed to control confounding
- Other threats to internal and external validity
- Every design has strengths and limitations

How Does the Task Force Define Suitability of Study Design?

- Greatest
 - Prospective with concurrent comparison
- Moderate
 - Multiple before-and-after measurements but no concurrent comparison OR
 - Retrospective
- Least
 - Single group before-and-after
 - Cross-sectional

What Factors Determine Quality of Execution?

- Description of intervention and study population
- Sampling procedures
- Exposure and outcome measurements
- Approach to data analysis
- Interpretation of results
 - Follow-up
 - Confounding
 - Other bias
- Other issues

How Does the Task Force Draw an Overall Conclusion About the Strength of a Body of Evidence?

- Number of studies
- Design suitability
- Quality of execution
- Consistency
- Effect size

Evidence of Effectiveness	Quality of Execution	Design Suitability	Number of Studies	Consistent	Effect Size
1. Strong					
	Good	Greatest	≥ 2	Yes	Sufficient
	Good	Greatest or Moderate	≥ 5	Yes	Sufficient
	Good or Fair	Greatest	≥ 5	Yes	Sufficient
	Meet criteria for sufficient evidence				Large
2. Sufficient					
	Good	Greatest	1	--	Sufficient
	Good or Fair	Greatest or Moderate	≥ 3	Yes	Sufficient
	Good or Fair	Greatest, Moderate or Least	≥ 5	Yes	Sufficient
3. Insufficient	Insufficient design or execution		Too few	No	Small

Insufficient Evidence Is Not the Same As Evidence That Interventions Do Not Work

- Interventions for which evidence is insufficient should be more thoroughly researched
- Interventions that either produce no effect or produce harm(s) should not be used, and more effective choices should be substituted

That was and is the GUIDE, a national endeavor



www.thecommunityguide.org

Now we turn to a regional effort

IUHPE Report

A Report for the European Commission by the International Union for Health Promotion and Education

- Title: The Evidence of Health Promotion Effectiveness: Shaping Public Health in a New Europe
- A core document, 30 pages
- An Evidence Book, 164 pages

IUHPE Report

Three Components of Working Group

- International Project Advisory Group
- Lead project Authors
- A Witness Group of Political Experts

General Comments on these efforts to evaluate community based interventions

- Many considerations
- What appears to be a relatively straightforward task is not so simple
- Despite a decade of efforts, we are still in the beginning stages

Characteristics of Working Groups on Evidence and Evaluation

- Multi-disciplinary
- Often multi-cultural/multiple nations
- Large endeavors
- Time consuming
- Raising many questions
- Reviewing published, Western sources

Key Unresolved Issues in the Evidence Discussion

- Methods
- Populations
- Time
- Attribution of Effect
- Universality

Expanding to a global
perspective and effort

GPHPPE

A global effort, the IUHPE Global Programme on Health Promotion Effectiveness GPHPE

Global Programme on Health Promotion Effectiveness

Coordinated by the International Union for Health Promotion and Education

In collaboration with the World Health Organization

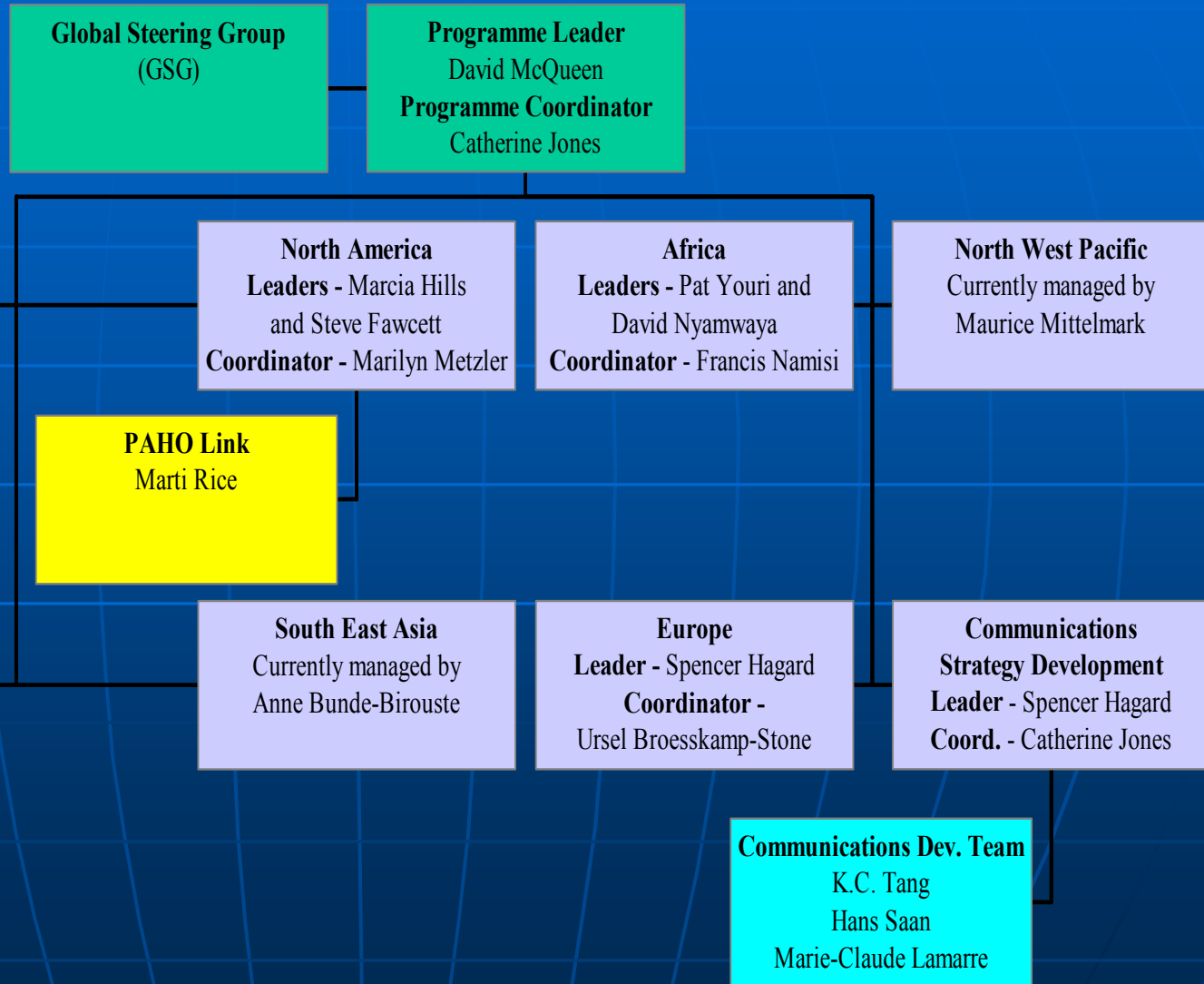
And supported by the African Medical and Research Foundation;

Health Canada; Health Development Agency, England; the Netherlands Institute for Health Promotion and Disease Prevention; the US Centers for Disease Control and Prevention (an agency of the Department of Health and Human Services); the Voluntary Health Association of India; Health Promotion Switzerland, and other partners.

The **GPHPE** aims to raise standards of health promotion practice worldwide
by :

- - reviewing evidence of effectiveness in terms of health, social, economic and political impact;
- - translating evidence to policy makers, teachers, practitioners, researchers;
- - stimulating debate on the nature of evidence of effectiveness.

Organisational Schema for the GPHPE



REGIONS WILL FOCUS ON DEVELOPING THEIR OWN PRIORITIES AND DEFINITIONS OF EVIDENCE AND EFFECTIVENESS

Regions should move at their own pace

Regions should take into account their own context and develop plans accordingly

Regions should feel ownership, while at the same time being full partners in the global programme

Summary of **GPHPE** REGIONAL COMPONENTS

Africa - capacity building, research, documentation, dissemination, advocacy

Europe - chapter updates in Mental Health and Tobacco plus new areas of Policy, Infrastructures,

Latin America - development of a conceptual framework; creation of a network of projects and practices to serve as the Region's priorities for action; systematic reviews of effectiveness studies
North America - social determinants, with key interim products of a synthesis report and toolbox

North Western Pacific – on-going translation and dissemination

South-East Asia - community development initiatives and nutrition programmes

South West Pacific - avenues which continue to be explored and developed are :

- reviewing alcohol interventions from a health promotion perspective; and**
- reviewing the Pacific Healthy Islands project from a GPHPE approach.**

GPHPE

Now to aspects of the global component of the programme

The Global Monograph of the **GPHPE**

- **Provides a broad overview of issues of evidence, evaluation and effectiveness**
- **Compares regional variations**
- **Codifies commonality and emphasizes differences where indicated**
- **Emphasizes areas that are considered critical to health promotion's development throughout the world**
- **Provides a companion document to the regional documents.**

GPHPE Chapter Development of the Global Monograph

Programme Leader
David McQueen
Programme Coordinator and Production Contact
Catherine Jones

Mental Health

Leader: Maurice Mittelmark
Coordinator : Eva Jane-Llopis

Global Overview

Leader: David McQueen
Coordinator : Mary Hall

Globalisation

Focus on Urbanisation
Leader : David McQueen
Coordinator : Mary Hall

Tobacco

(to be developed)

GPHPE Chapter Development for the European Region

Programme Leader
David McQueen
Programme Coordinator and Production Contact
Catherine Jones

**European Project Chapters
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Ursel Broesskamp-Stone

Policy Leader
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Policy Coordinator
Viv Speller

Infrastructure Leader
Spencer Hagard
Infrastructure Coord.
Jackie Robinson

Tobacco Leader
Spencer Hagard
Tobacco Coordinator
Karen Slama

Mental Health Leader
Maurice Mittelmark
Mental Health Coord.
Eva Jane-Llopis

I have told you a little of what is it all about, BUT, what are the stakes ?

- Changing the Public Health
- Recognition of the Global Burden
- Recognition of the importance of Community
- Bigger picture of health
- Showing that there is evidence that we can do something about this bigger picture.

Comments? Questions?

