Principles of Research Design in Public Health (part I)

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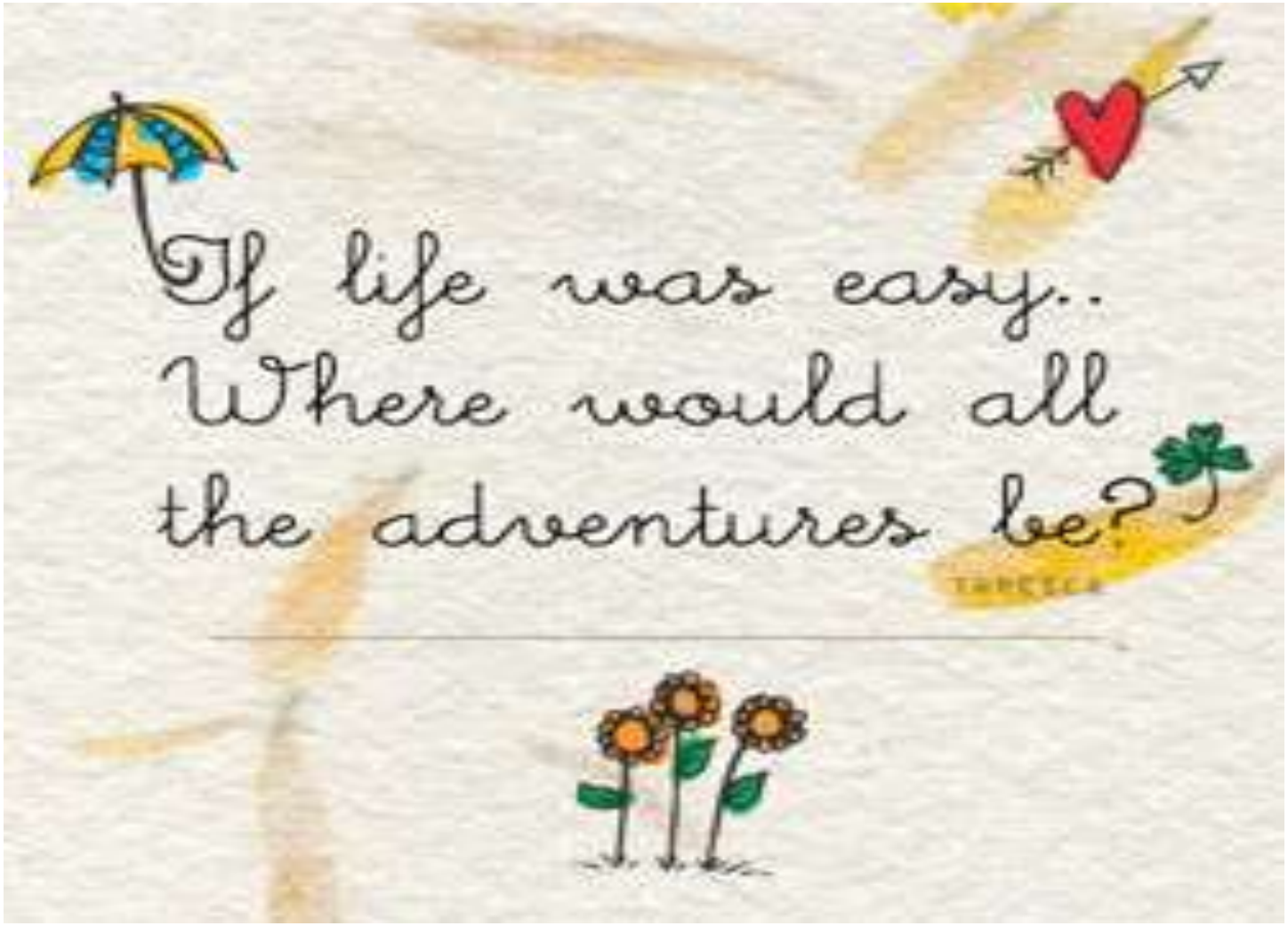
Module 1: Research Methodology, Unit 2: Introduction to research methodology

If research was easy ...



Key perspectives and topics

- Public health is a multidisciplinary field of science.
- Choice of theme, criteria for priority-setting, formulating problems and research questions.
- Research design, analysis, ethics => for action.
- Formulate general & specific aims, define target(s), measurements, methods for obtaining information, description, analysis, and research quality control.
- Respect different views regarding scientific theory and ethics, as well as applicability and relevance.
- Evidence value, trustworthiness, applicability.
- Identify examples to illustrate strengths and weaknesses in different research settings in Laos.
- Combining theories, methods, data, competences, in different forms of triangulation.

Public health: multidisciplinary sciences

- Water and sanitation,
- Nutrition, food hygiene,
- Environmental health,
- Sexuality, reproduction
- Genomics and genetics,
- Health behaviour psychology,
- Injury, harm and disability,
- Pharmaceutics,
- Disease control,
- ...

Public health: multidisciplinary methods

- Biostatistics, epidemiology,
- Population(s) demography,
- Social behavioural science,
- Parasitology, virology ...
- Leadership, management, systems administration,
- Public health policy-making.

Public health: multidisciplinary actors

- Engineers,
- Clinicians,
- Statisticians,
- Researchers,
- Politicians,
- Police and judiciary,
- Educators,
- You, Me,
- Who else?

Cyclical and **linear** processes

- Prevent epidemics and the spread of disease
- Protect against environmental hazards
- Prevent injuries
- Promote and encourage healthy behaviours
- Respond to disasters and assist communities in recovery
- Assure the quality and accessibility of health services

Cyclical and linear processes

- Monitor health status, identify community problems, diagnose and investigate health problems and hazards in the community
- Inform, educate, and empower people about health issues
- Mobilize community partnerships to identify or solve health problems
- Develop policies and plans that support individual and community health efforts
- Draft laws and regulations that protect health and ensure safety, enforce them
- Link people to services and assure the provision of health care when otherwise unavailable
- Assure a competent public health and personal health care workforce
- Evaluate effectiveness, accessibility, and quality of personal and population-based health services
- Research for new insights and innovative solutions to health problems ...

Research analysis and design

- Choice of theme,
- Criteria for priority-setting,
- Formulating problems and consequent research questions, ethics
- Formulate general and specific aims,
- Define target(s), measurements, methods for obtaining information, description and analysis,
- Research quality control.

Ethical considerations

- An aspect of research quality control, and professional respect,
- Balance different views regarding scientific theory and values,
- Applicability and relevance,
- Evidence value, trustworthiness, and applicability,
- At least do no harm.

More documentation:

Training Course in Sexual and Reproductive Health Research

GFMER at WHO, Geneva 2009

http://www.gfmer.ch/Medical_education_En/Course_files_2009.htm

Public health research: between science and action?
Gérard de Pouvourville