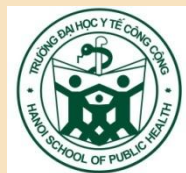


EcoZD–FBLI Ecohealth/One Health course
Hanam– 29 May 2013

Knowledge Translation: putting research and training into policy

Hung Nguyen Viet
Hanoi School of Public Health (HSPH)
Swiss TPH and Sandec/Eawag



Content

- Need to translating our academic knowledge into policy
- Risk assessment for food safety and environmental health
- Environmental sanitation and health

Research and policy impact



Problem,
issue

Research,
enquiry

Findings

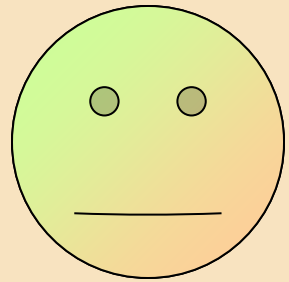
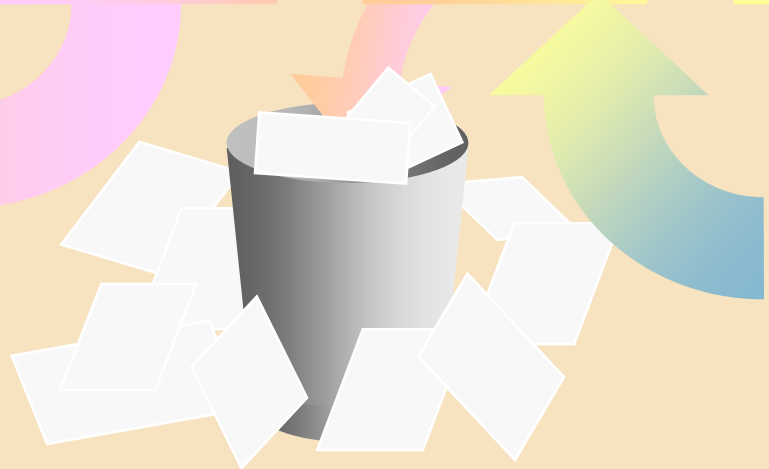
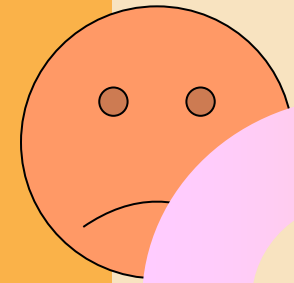
Policy
makers
accept
findings

Positive
policy
change



north

...in the reality...



north

NCCR North-South Outcome Highlight

No 7 August 2011

Outcome HIGHLIGHTS



Trainees of the short course on risk assessment in field trip in Ho Nam

Photo: Hung Nguyen MR

Microbial risk assessment in Vietnam

From training to policy

In brief

- This project developed a training course on microbial risk assessment (MRA) in Vietnam
- The MRA training course tackled issues of water, sanitation, and food safety, and helped relevant groups in Vietnam to work in partnership
- It led to a larger training programme, more research, and a network on health risk assessment in Vietnam, and provided important inputs to Vietnam's Ministry of Health and the WHO office in Hanoi to establish MRA guidelines for food safety

Need for better risk assessment

Environmental health risk assessment in general and microbial risk assessment (MRA) in water and food in particular are still at a very early stage of development in Vietnam. A survey done by the Hanoi School of Public Health in 2007 showed that staff working in the field of environmental health, preventive medicine, and public health in 17 Vietnamese provinces had very limited or no official training in environmental health risk assessment. With rapid urbanisation, industrialisation, agricultural development, and a high population growth rate, Vietnam faces many "traditional" and "modern" environmental health risks. These risks – caused by pathogens (virus, bacteria, and protozoa) in water and foods – include waterborne and food-borne diseases such as diarrhoea and food poisoning.

Curriculum development

This PAMS (see back) project aimed to supply tools to ensure that risk management is evidence-based and as effective as possible. Its main implementer was the Hanoi School of Public Health, which teamed up with the National Institute of Nutrition,

the National Institute of Hygiene and Epidemiology, and the Preventive Medicine Centre of Ha Nam Province to develop an MRA training course. NCCR North-South researchers continuously assisted the team and were involved in the entire process of project development. Experts from the International Livestock Research Institute (ILRI) provided the team with technical support to ensure the quality of the course. The team also met with a number of other experts and related stakeholders to obtain advice and feedback on the course design and training-package content. Concepts, application, and uses of MRA were further discussed with policymakers from Vietnam's Ministry of Health.

The resulting course teaches participants about the concept of risk analysis, the steps of an MRA, and how to implement these steps. Lessons on risk communication and management show how to use the results of a completed risk assessment.

Training, research, and networking
In August 2010, project organisers held a one-week national training course for 40 participants (selected

from 77 applicants) with jobs in the field of risk assessment and management. The course included theory, field based, and laboratory sessions on how to perform risk assessments using two concrete examples: wastewater reuse in agriculture, and pork meat consumption. Two course participants eventually launched MSc-level research projects on related topics. In addition, two new research projects on MRA and food safety grew out of the workshop.

The final MRA training workshop was held in January 2011. It was attended by members of research institutions, ministries, and universities. It enabled them to discuss future collaboration in risk-assessment research and training as well as establishment of a risk-assessment network in Vietnam. The final version of the training package – in English or Vietnamese – is available on request from the researchers.

Policy Impact

Since its introduction in early 2010, the MRA training course has been recognised by health staff, lecturers, researchers, and policymakers at the Ministry of Health and the WHO office in Hanoi as a useful tool that provides scientific evidence for decision-making and risk management.

Both participants and policymakers – including directors of the Health Environment Management Agency and the Vietnam Food Administrator at the Ministry of Health – rated the training course highly, and acknowledged the importance of MRA in food safety management in Vietnam. As MRA is a new approach in Vietnam, raising awareness in this field was an important outcome of the project.

Building on the project, the Vietnam Food Administration and WHO offices in Hanoi are supporting creation of a book-length Vietnamese-language manual on MRA for food safety in Vietnam, slated for publication in 2011. In addition, the Hanoi School of Public Health has adapted its environmental health risk assessment course for undergraduates and graduate public health students to include MRA, based on the PAMS training course contents. Finally the NCCR North-South researchers who helped launch and guide this training-to-policy project see good potential for reproducing it in neighbouring Laos and Cambodia.

The National Centre of Competence in Research (NCCR) North-South is jointly funded by the Swiss National Science Foundation (SNSF), the Swiss Agency for Development and Cooperation (SUD), and the participating institutions. Created in 2001, the NCCR North-South is dedicated to advancing research on global change and sustainable development. The Centre for Development and Environment (CDE) at the University of Bern, Switzerland, manages the programme.

Outcome HIGHLIGHTS



Working team meeting with Vietnam food safety authorities in Hanoi

Photo: Hung Nguyen MR

Researchers

- Hung Nguyen Viet PhD, Tran Thi Tuyet Hanh, MPH, Nguyen Ngoc Binh, MD, Vinh Nguyen Hong Nhung, BSc Nguyen Thuy Quynh, MD, MPH (Hanoi School of Public Health, Vietnam)
- Pham Duc Phuc, MD, MSc, Nguyen Thuy Tram, MSc (National Institute of Hygiene and Epidemiology, Vietnam)
- Bui Thi Mel-Huong MD, MSc (National Institute of Nutrition, Vietnam)

Select partners

- Hanoi School of Public Health, Vietnam
- National Institute of Hygiene and Epidemiology, Vietnam
- National Institute of Nutrition, Vietnam
- Preventive Medicine Centre of Ha Nam Province, Vietnam
- Vietnam Food Administration and Health Environment Management Agency, Ministry of Health, Vietnam

Further reading

- Hees CR, Gerba CP. 1999. Quantitative Microbial Risk Assessment. New York: John Wiley and Sons, Inc.
- Khanh Huu, Hung Huu, editors. 2011. Microbial Risk Assessment for Food Safety. Hanoi: Ho Hoa Publishing House.

Further information

- Thammarat Kiatbatt, Ph.D. Regional Coordinator Office Southeast Asia thammarat@bi.ac.th
- Eva Maria Heim, Ph.D. NCCR North-South PAMS Coordinator CDE_Sulzinger@nccr.ch
- www.north-south.unibe.ch

Outcome Highlights feature

effective collaborations between researchers, policymakers, practitioners, and local communities in the NCCR Hub (South-East Asian).

Partnership Actions for Mitigating Zoonoses (PAMZ)

and pilot projects designed to test NCCR North-South research in real-world settings. Co-developed jointly by researchers, they aim to promote mutual learning and reveal paths to sustainability.

Notes

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Research featured here was conducted in Lao PDR and Vietnam

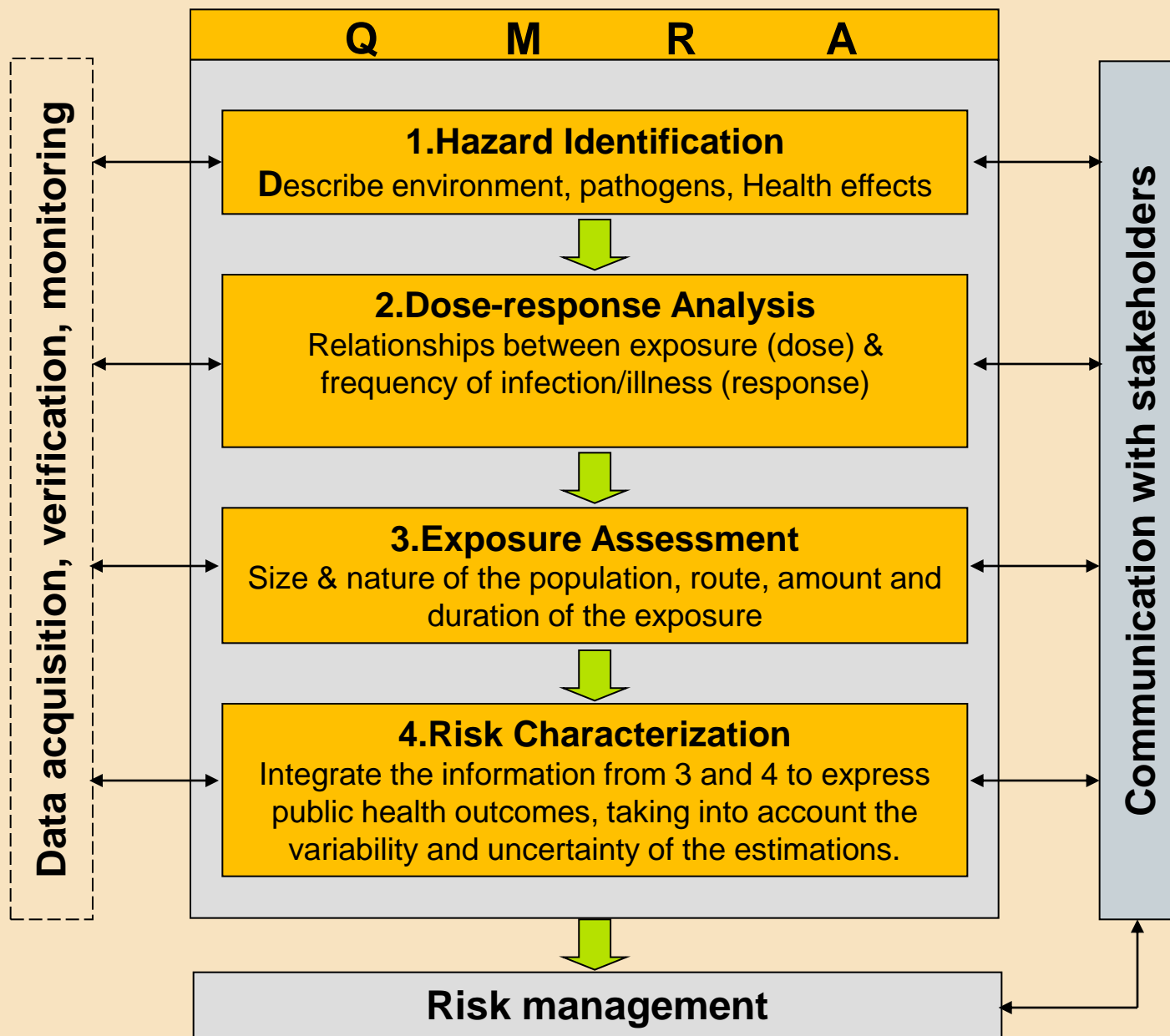
Risk analysis

- Risk analysis describes how risks are dealt within the society, including 3 components



- **Risk assessment (RA):** adverse health effects associated with exposure to hazards
- **Risk management:** how to reduce risk
- **Risk communication:** Communication of risks to managers, stakeholders, public officials, and the public.

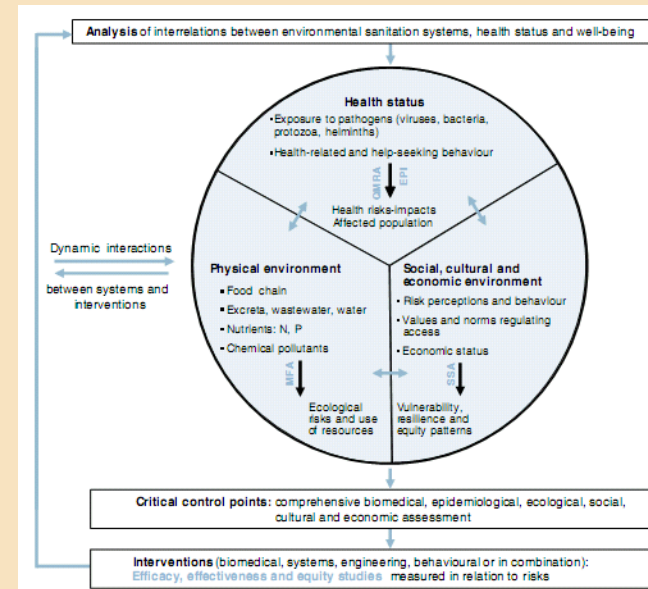
QMRA within Risk Analysis framework



Original Contribution

Improving Environmental Sanitation, Health, and Well-Being: A Conceptual Framework for Integral Interventions

Hung Nguyen-Viet,^{1,2} Jakob Zinsstag,¹ Roland Schertenleib,² Chris Zurbrügg,² Brigit Obrist,¹ Agnès Montangero,² Narong Surkinkul,³ Doulaye Koné,² Antoine Morel,^{2,3} Guéladio Cissé,⁴ Thammarat Koottatep,³ Bassirou Bonfoh,⁴ and Marcel Tanner¹



Introduction

- No official training on risk assessment universities
- Very limited number of Public health/preventive medicine/ health staff in Vietnam have training on health risk assessment while increasing health risks due to environmental health hazards.

4 hits

9/3/2009



4,540,000 hits

15/3/2011



Keyword: “Nguy cơ sức khỏe môi trường - Environmental health risk”

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1,875 hits

304,643 hits

28,355 hits

15/3/2011



“Microbial risk assessment”

“Health risk”

“Environmental health risk”

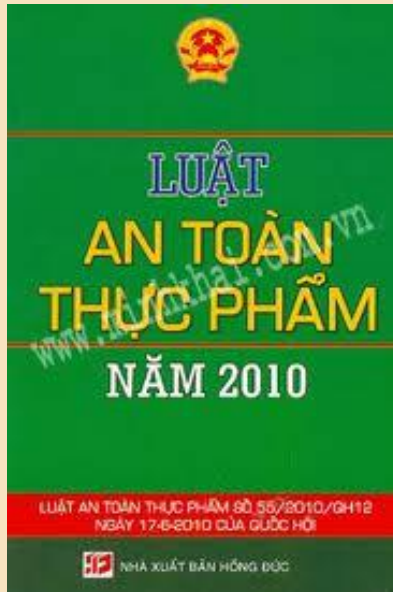
MEDLINE

Introduction

- No official training on risk assessment universities
- Very limited number of Public health/preventive medicine/health staff in Vietnam have training on health risk assessment while increasing health risks due to environmental health hazards.
- Need to put theoretical training/teaching into practice. Willingness to develop a policy of health risk management related to food, water and sanitation.
- Partnership and combination of common interests from different stakeholders (university, policy making) create a joint force in developing health risk assessment approach specific to Vietnamese context.

Introduction

- Vietnam Food Safety Law: Article 49, which stated that risk analysis for food safety must be undertaken for:



- Foods with high risk of causing food poisoning
- Foods with samples taken for monitoring show a high violation rate in terms of food safety technique regulations.
- The production, display and sell of foods are suspected to cause pollution
- Risk analysis for foods, production areas, food traders is undertaken according to management requirement

- Compliance with CODEX, WTO as country: food import-export, surveillance...

Partnerships



Objective

General goal: developing a training module on health risk assessment related to water supply, sanitation and food in Vietnam

Specific objectives:

- to develop a training module on health risk assessment related to water supply, sanitation and food
- to test the developed training module with various stakeholders of health risk assessment using approach learning by doing
- (perspective): policy implication, replication elsewhere

Activities, approach, expected outputs

WORKPACKAGES, ACTIVITIES

1. Develop a training module on health risk assessment related to water supply, sanitation and food safety

2. Test the developed training module with various stakeholders using approach *learning by doing*

3. To revise and apply the developed module in another JACS SEA country

4. Documentation and final workshop

- Desk review
- Training material development
- Team work
- Exchange

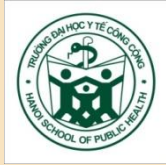
- 1 week national training course for professionals
- Theoretical, field and lab. work

- Team work
- Looking for other funding sources

- Publication
- 1 final workshop

APPROACH, EXPECTED OUTPUTS

Team



Nguyen Viet Hung, Tran Thi Tuyet Hanh, Nguyen Ngoc Bich, Nguyen Thuy Quynh, Nguyen Hong Nhung
Department of Environmental and Occupational Health - Hanoi School of Public Health (HSPH)



Pham Duc Phuc, Nguyen Thuy Tram
Department of Bacteriology - National Institute of Hygiene and Epidemiology (NIHE)



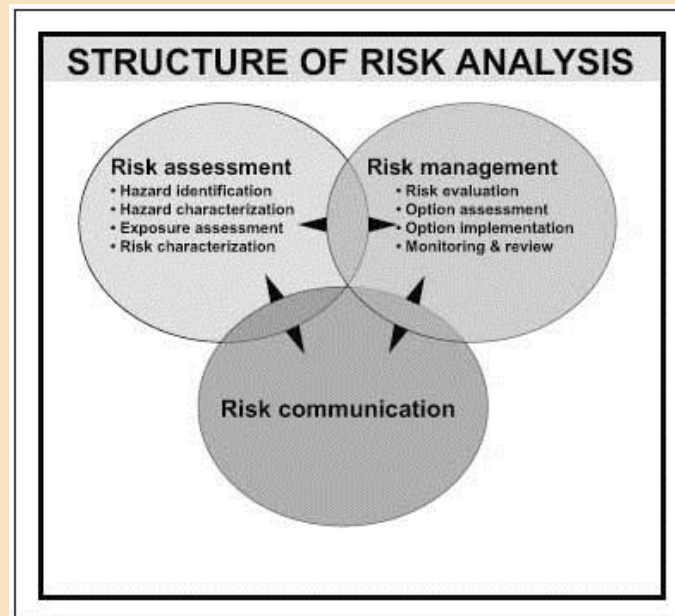
Bui Thi Mai Huong
National Institute of Nutrition (NIN)



One week training course: August 2010

Theory sessions

- Concept of risk analysis
- Steps of an MRA
- How to implement these steps
- Risk communication and management



Codex framework for risk analysis

One week training course: 23-27/August 2010

1. Opening & theory sessions



Field-based, and laboratory sessions

- Problem identification in the fields
 - Pork meat consumption “farm-to consumption”
 - Wastewater reuse in agriculture
- Perform risk assessments (field, lab, calculation, presentation with option of management and communication)

One week training course: 23-27/August 2010

2. Field trip to Hanam and laboratory session



One week training course: 23-27/August 2010

3. Group work, presentation & official certificate





TRƯỜNG ĐẠI HỌC Y TẾ CÔNG CỘNG

Swiss TPH

HỘI THẢO

"LƯỢNG GIÁ NGUY CƠ SỨC KHỎE LIÊN QUAN ĐẾN YẾU TỐ NGUY CƠ VI SINH VẬT TRONG MÔI TRƯỜNG THỰC PHẨM VÀ NƯỚC THẢI Ở VIỆT NAM"

(ENVIRONMENTAL HEALTH RISK ASSESSMENT OF MICROBIOLOGICAL HAZARDS IN FOODS AND WASTEWATER IN VIETNAM)

Hà Nội, ngày 13 tháng 01 năm 2011



PAMS: XÂY DỰNG KHÓA HỌC

LƯỢNG GIÁ NGUY CƠ SỨC KHỎE LIÊN QUAN TỚI VI SINH VẬT TRONG THỰC PHẨM VÀ NƯỚC THẢI TẠI VIỆT NAM

Nguyễn Văn Hùng, Trần Thị Tuyết Ngọc,
Nguyễn Ngọc Bích, Bà Mai Hương, Phạm Văn
Phúc, Nguyễn Thùy Quỳnh, Nguyễn Thế Trung

Hà Nội ngày 13.1.2011

Having interests of decision making stakeholders



VFA – MOH



Food safety – WHO
office Hanoi

Having interests of decision making stakeholders



Partnerships expanded



Outcomes

- Policy: First National guidelines for microbial risk assessment in food safety, coming soon
- Working group (task force) on risk assessment
- Research and training:
 - 2 MSc research and proposals submitted to donors for funding
 - Curriculum applied for university with potential of replication



NCCR North-South Outcome Highlight

No 7 August 2011

Outcome HIGHLIGHTS



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nccr north south



Research featured here was conducted in Lao PDR and Vietnam

Conclusion, lessons learned

- Identification of the needs of policy makers when addressing the research/training questions
- Involvement of stakeholders (researcher, donor, practitioner, policy maker...)
- Transfer of research/training into policy
-