



Waterborne disease in the Mekong Delta: determiners, perceptions and strategies

Selected results from a study on the combination of factors that shape the prevalence of diarrheal waterborne diseases in Can Tho City, Vietnam

PhD thesis by Panagiota Kotsila
panagiota.kotsila@gmail.com

WISDOM 5th scientific seminar, 21 - 23 Feb 2012

Supervisor: Prof. Dr. Gerke Solvay
Tutor: Dr. Saravanan Subramanian
Local supervisor: Dr. Bui Thi Nga

WP 4000: Water Resources & Water Quality

- task 4250: Social Impact of Water Quality
- Activity 4252: Water Quality & Health

“ Waterborne Diarrheal Disease in the Mekong Delta ”

Perceptions and applied strategies in Can Tho City

Leading research question :

Which are the factors shaping waterborne diarrheal diseases, either by facilitating their control and limiting the prevalence or by driving their spread and hindering people's coping capacities?

- What is waterborne disease (WD)?

Diseases that spread through water (or food), which is acting as a passive carrier for pathogens

- What do I define as Waterborne Diarrheal Disease(WDD) ?

Diarrhoea (acute or prolonged) is a common WD that can be caused from various types of pathogens (bacteria, virus, protozoa) and can lead to cholera, typhoid, bacillary ailments and gastroenteritis (Ashbolt, 2004:232 from Saravanan & Mollinga, 2008)

- Delineate the National Health Care System with regard to how Waterborne Diarrheal Disease (WDD) is managed and controlled
- Identify the Environmental and Socio-economic contexts where WDD is found
- Trace and analyze existing perceptions and levels of awareness around WDD among the local population
- Provide an analysis of Institutions and Actors shaping the Water & Health nexus

- 9 months of field research in Can Tho
- 90 semi-structured interviews
 - related agencies (national, province, district, commune and hamlet level)
 - Hospitals, Schools, Pharmacies, Clinics...
 - Civil society groups and residents
 - Experts and NGO representatives
- survey - 130 households
 - WSS access – hygiene & disease related perceptions and practices
 - Use of many open-end questions
 - 9 follow –up in depth hh interviews



- the urban(-izing)



Cai Rang District

Study Site ward: Le Binh

- the rural



Phong Dien District

Study Site communes :
Truong Long & Giai Xuan

💧 Water Supply

- Water companies network (urban) – river water
- mini supply stations (rural) – groundwater

💧 Sanitation

- fishpond /river toilets
- hygienic latrine (septic tank, pour-flush, pit latrine)
- other...

💧 Health

- hamlet clinics (health workers)
- Commune clinics (Health Volunteers and Health Collaborators)
- District and Province level Hospitals
- Preventive Health Centers (PHC)

💧 Diarrheal Disease prevalence – „tip of the iceberg“

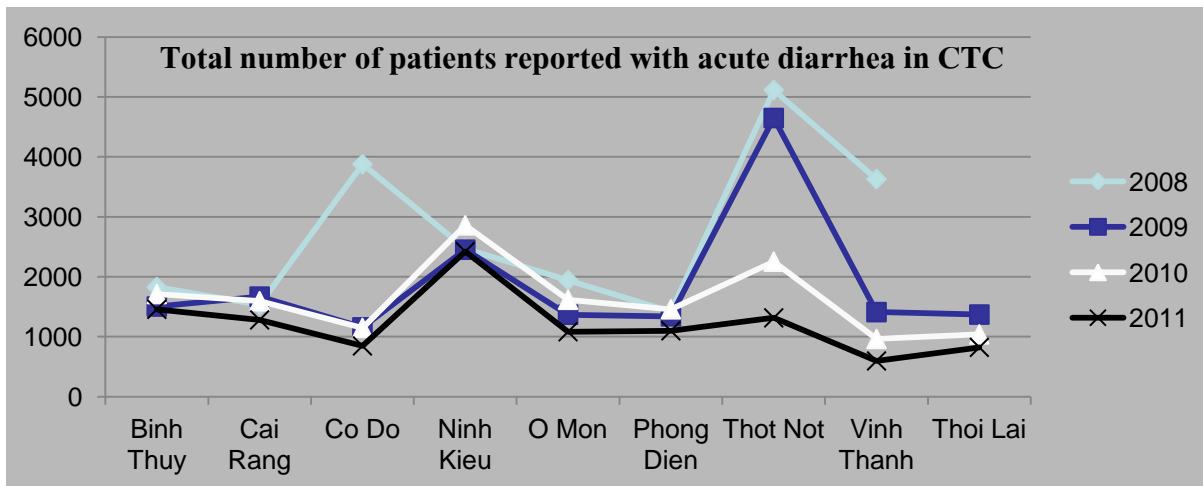


Table 1. Total number of patients reported with acute diarrhea in Can Tho City, by year and by District.

Data provided from PHC of CTC

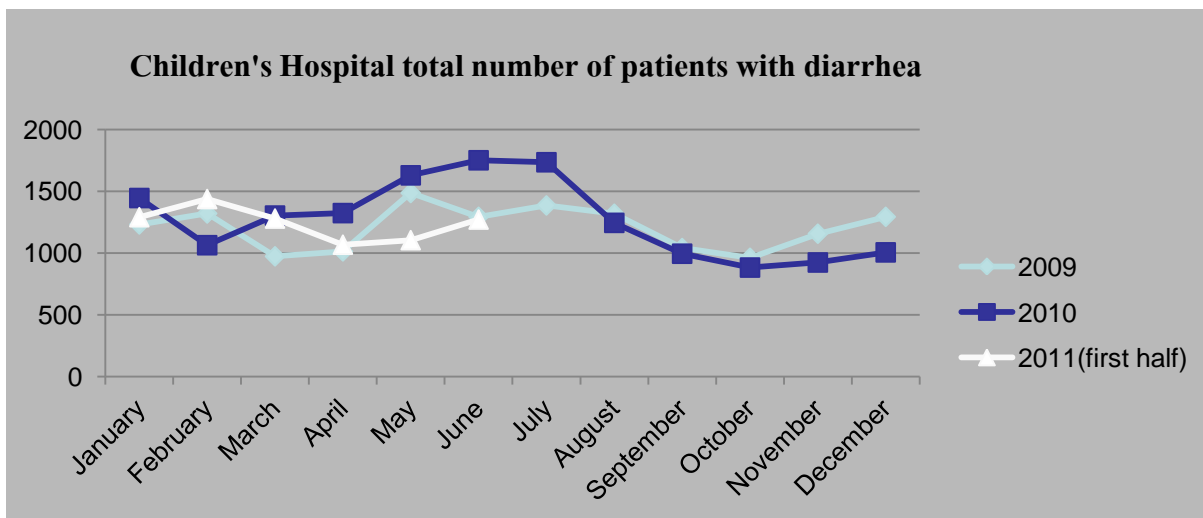
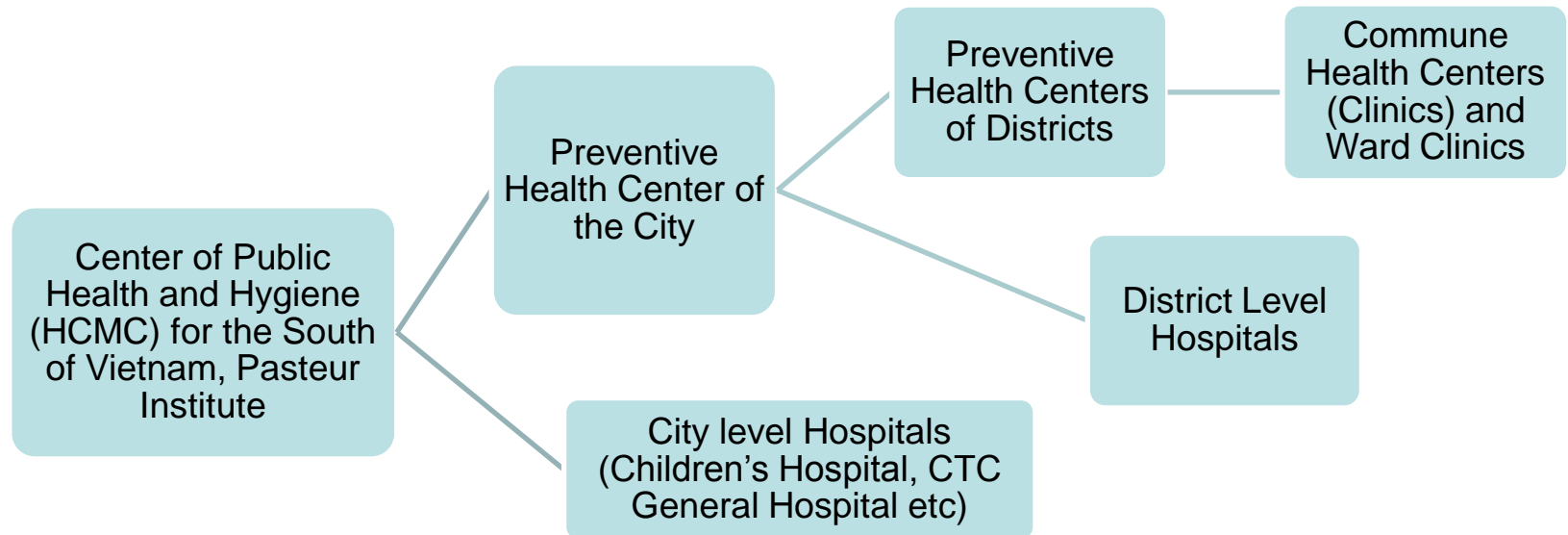


Table 2. Total number of patients (children of all ages) reported with acute diarrhea, by month and by year.

Data provided by the Children's Hospital of CTC

💧 Disease Surveillance & Control System



💧 Health Care System

- serious lack of resources/ capacities (funding, training, facilities, material)
- local level **potential** for guiding prevention and cure of WDD through contact with people (network of health workers, volunteers and collaborators)

💧 **Water Supply and Sanitation**

- not yet reaching all people & not suitable for all problems
- Clean water access from **all** sources > 77.9% in the MD > 71% in CTC
- **Toilets** > 42,11% in CTC
 - Unwillingness to invest / not considered a priority
 - toilets turn unhygienic after certain time
 - technical shortcomings > unhygienic constructions

💧 **Domestic / Drinking Water Quality**

- hard to ensure (water network and in-house treatment)
- variety of sources and uses
- lack of trustworthy monitoring

- 💧 **Prevention of Waterborne Diarrheal Disease**
 - **Information and Education Activities (IEA)**
 - not prioritized – only part of WSS promotion campaigns
 - not sustained expert guidance/quality of information
 - scarce and not inclusive
 - limited material
 - Lacking interaction, explanation, feedback



*“...the **sporadic knowledge** and the **lapsed understanding of health threats** connected to water treatment, food safety and sanitary hygiene, is partly (but not solely) the cause of limited action against such threats.”
(Few, 2010)*

- From the household interviews and the survey
- **Misconceptions** of water quality, WDD and their connection
 - **Fast** environmental change (not mitigated)
 - **Slow** change of habit and practice
 - **Access** to WSS, Health Care & Health Information are subject to social and economic factors

💧 Next steps

- Compilation and analysis of statistics and official docs (legislation, reports, policies)
- Analysis of interviews around the policies in WSS and their implementation
- Analysis of survey (SPSS) and Qualitative analysis of household interviews
- Bridge findings, build on theory

- Any comments / questions / suggestions?

