



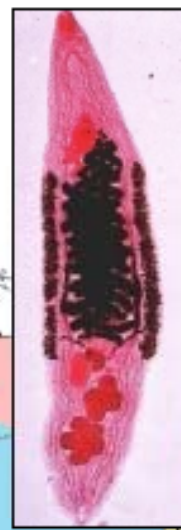
Prevalence of OV Infection
and Behavior for Prevention and Control
of OV and CCA among People
Upper Northeast, 2013

Wongba N, Thaewnongiew K, Laithavewat L,
Singthong S, Kutchamart S, Tangsawad S, Phothisimol S

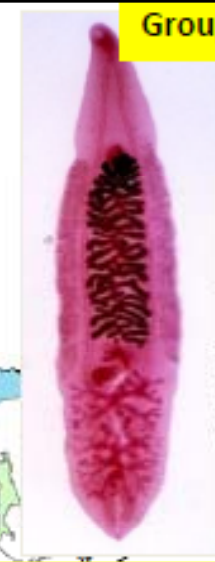
Group 1



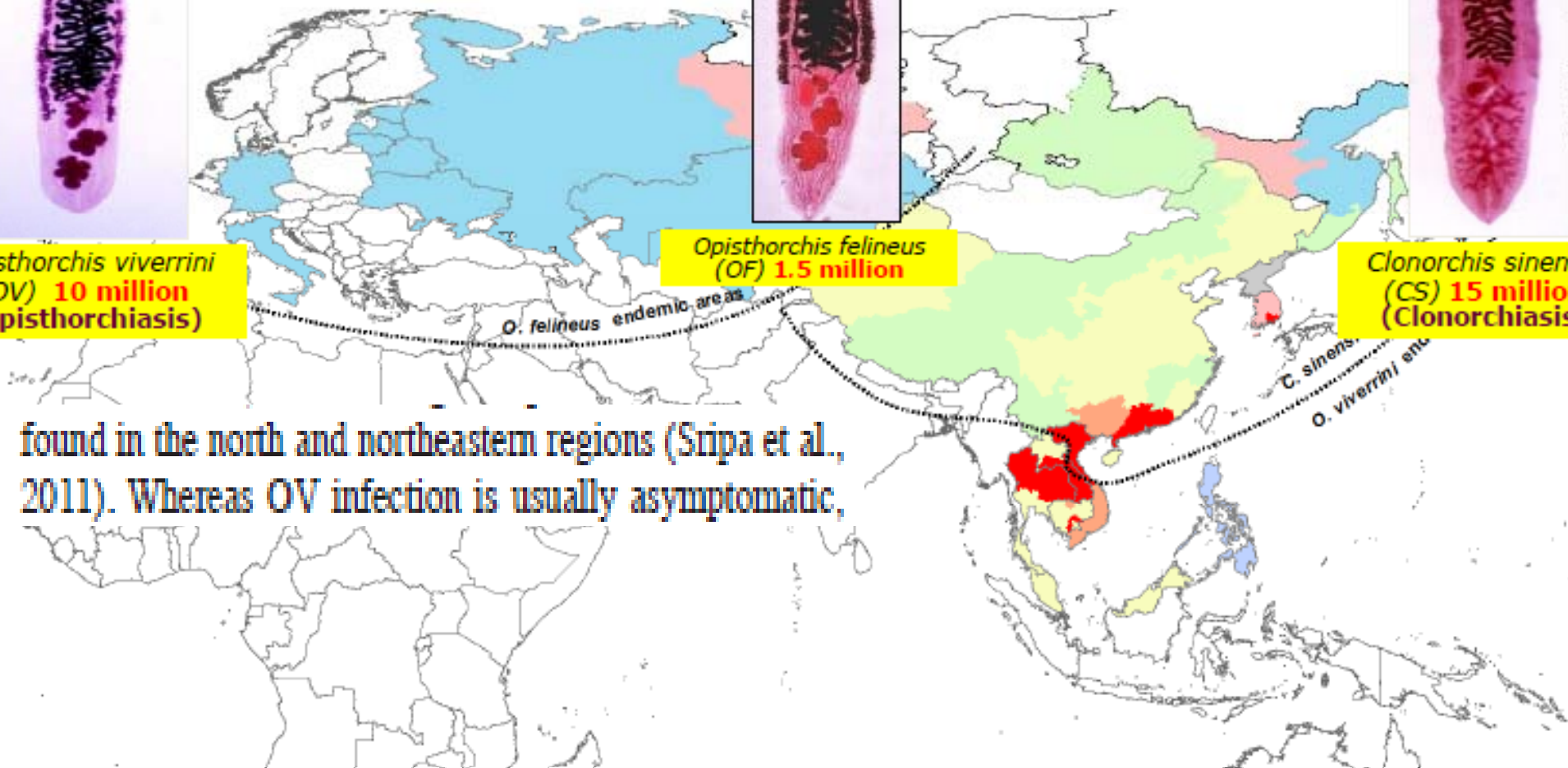
Opisthorchis viverrini
(OV) **10 million**
(Opisthorchiasis)



Opisthorchis felinus
(OF) **1.5 million**



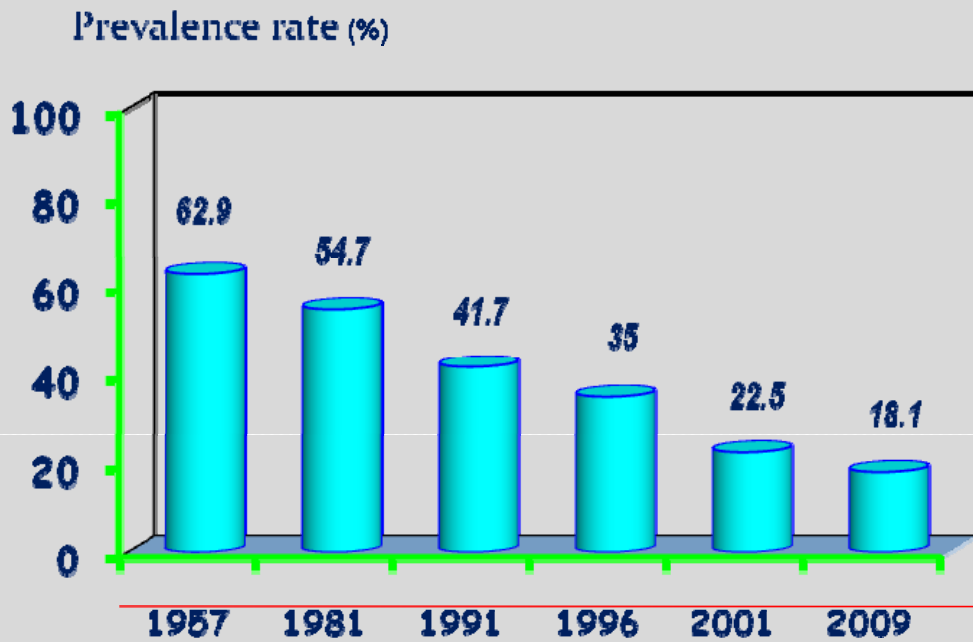
Clonorchis sinensis
(CS) **15 million**
(Clonorchiasis)



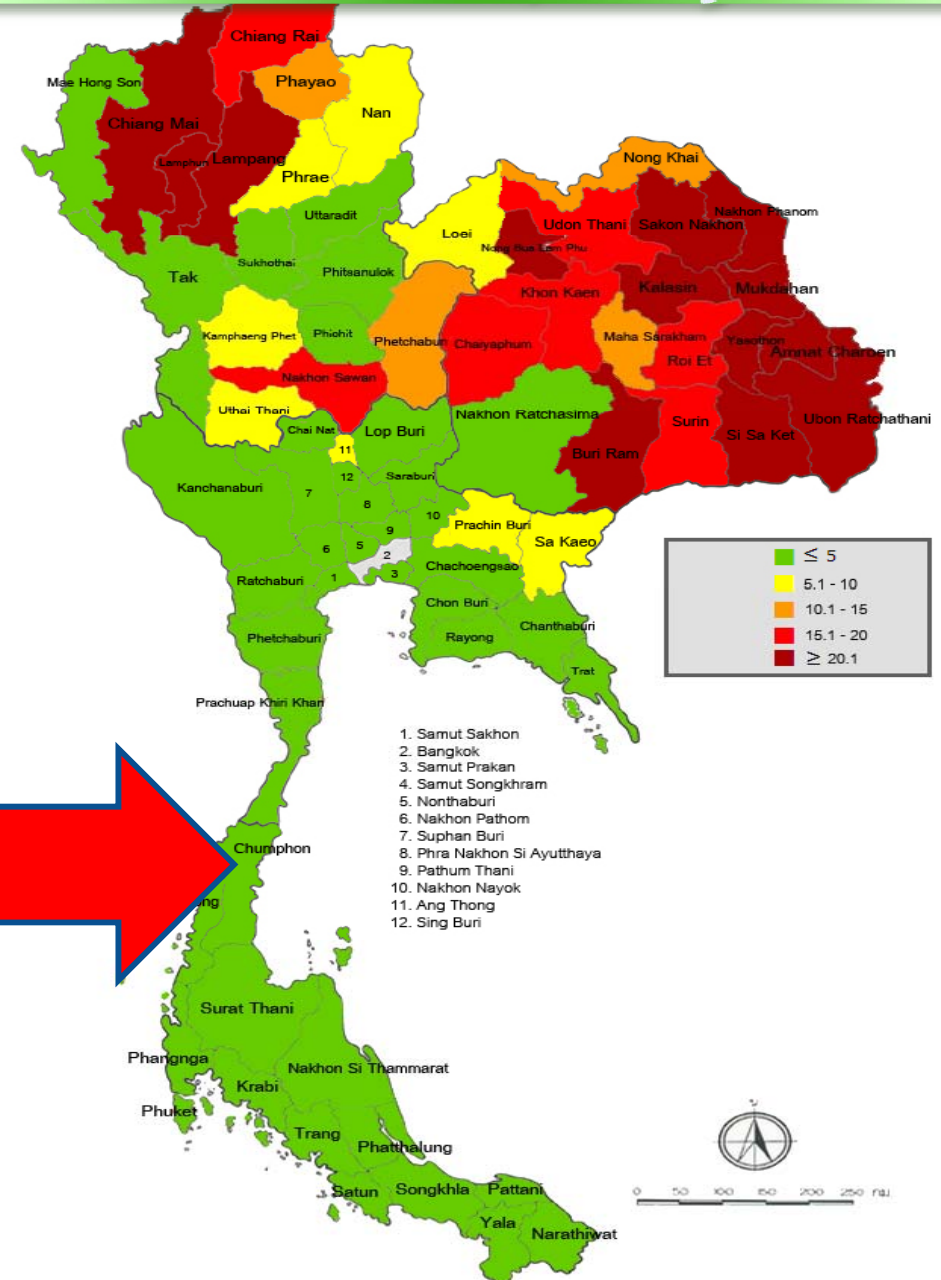
found in the north and northeastern regions (Sripa et al., 2011). Whereas OV infection is usually asymptomatic,

The liver fluke infections continue to be the source of a serious problem in the world. Over six million, Thai people are estimated to be infected.

Prevalence rate of Helminthiasis among Thai people by years in Thailand



The endemic area by Province for *Ov* and *Taenia* spp. in Thailand, 2009



Many campaigns against the consumption of “raw fish” have been organized by different agencies.

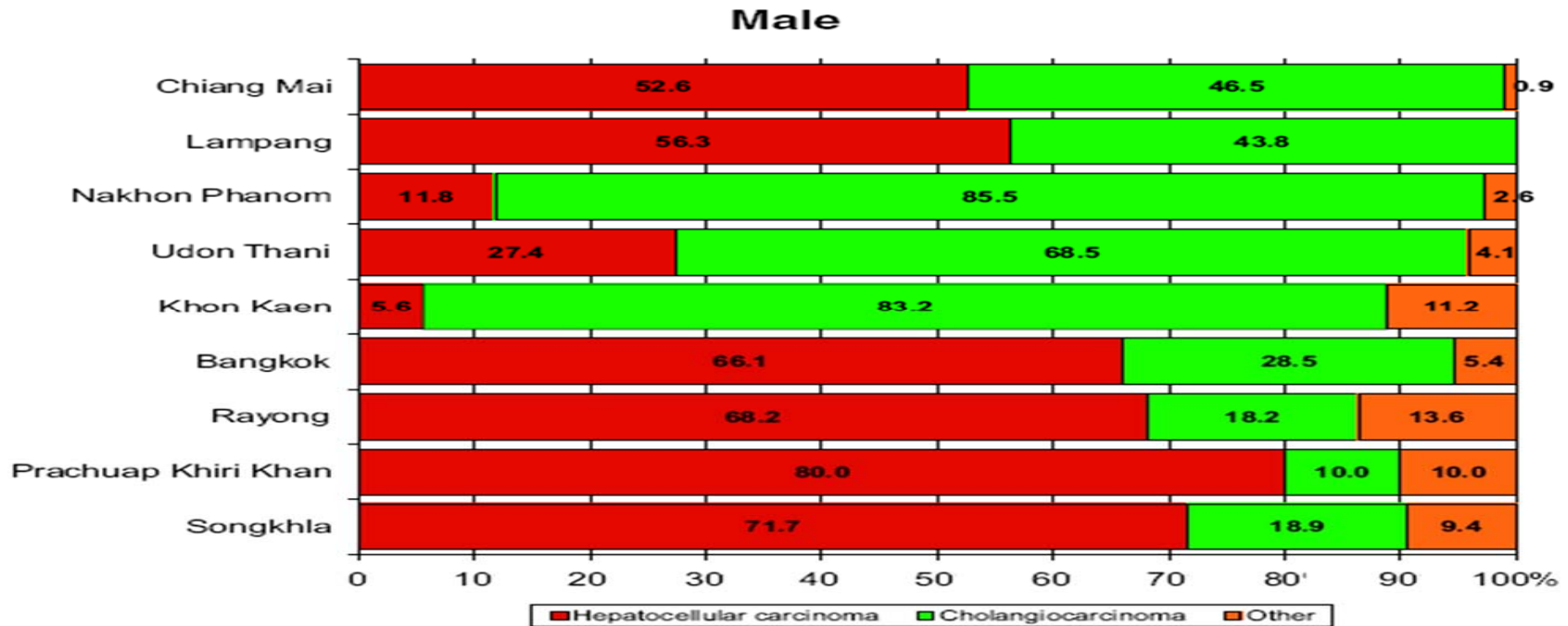
Reducing prevalence of *Ov* infection < 5 % in 2016

OV infection associated with CCA

Studies in Thailand, CCA is one of the **most common cancers** in northeast Thailand and has been associated with infestation by the liver fluke *Opisthorchis viverrini* .
(Srivatanakul et al, 1991)

Studies in Thailand, Chronic inflammation upon the liver fluke *opisthorchis viverrini* infection is one of **key factors that may enhance CCA.**
(Sripa and Pairoikul, 2008).

Situation of CCA in Thailand



Per year **28,000 people** die from **liver cancer and CCA** that are **76 people** per day. At present, the trend of death by CCA has not decreased.

(National Cancer Institute, 2010).

Consumption of undercooked fish

■ **Studies in Thailand**, Survey research from 1077 persons; 55.7 % of population had a good level of liver fluke knowledge concerning the mode of disease transmission. 79.7% of the population had a good level of prevention and control knowledge. However, improvement is required regarding personal hygiene with consumption of undercooked fish. (Kaewpitoon et al., 2007)

■ **Studies in Thailand** ; the prevalence of liver flukes in the northeastern region was higher than in the other regions of the country. **Thai people still like very much to eat raw fish 75%.** (DPC 6 , 2009).

Strategies for liver fluke control

The main strategies for liver fluke control comprise of **three** interrelated approaches; **stool examinations** and treatment of positive cases with praziquantel; **health education** for a promotion of cooked fish consumption to prevent infection and **improvement of hygienic defecation** for the interruption of disease transmission.

Justification

- The OV infection of E-san people and raw fish consumption continues despite attempts of MOPH **to curb this habit**. There were campaigns to stop eating **raw fish** and giving drug for several years.
- We need to **have information determined** by evidence based.

Research Question

How about OV situation among Thai people in 7 Provinces and behaviors for prevention and control ?



Research Objective

- To determine **prevalence of OV infection** among Thai people in 2013
- To assess **behavior for prevention and control** of *OV infection* and Cholangiocarcinoma

Materials & Methods

- The study was the Cross-sectional
- The subjects were chosen by using 30 Clusters Sampling Technique from 7 provinces which represent the whole population in upper northeast Thailand during Feb – July 2013
- Setting of study



Data management

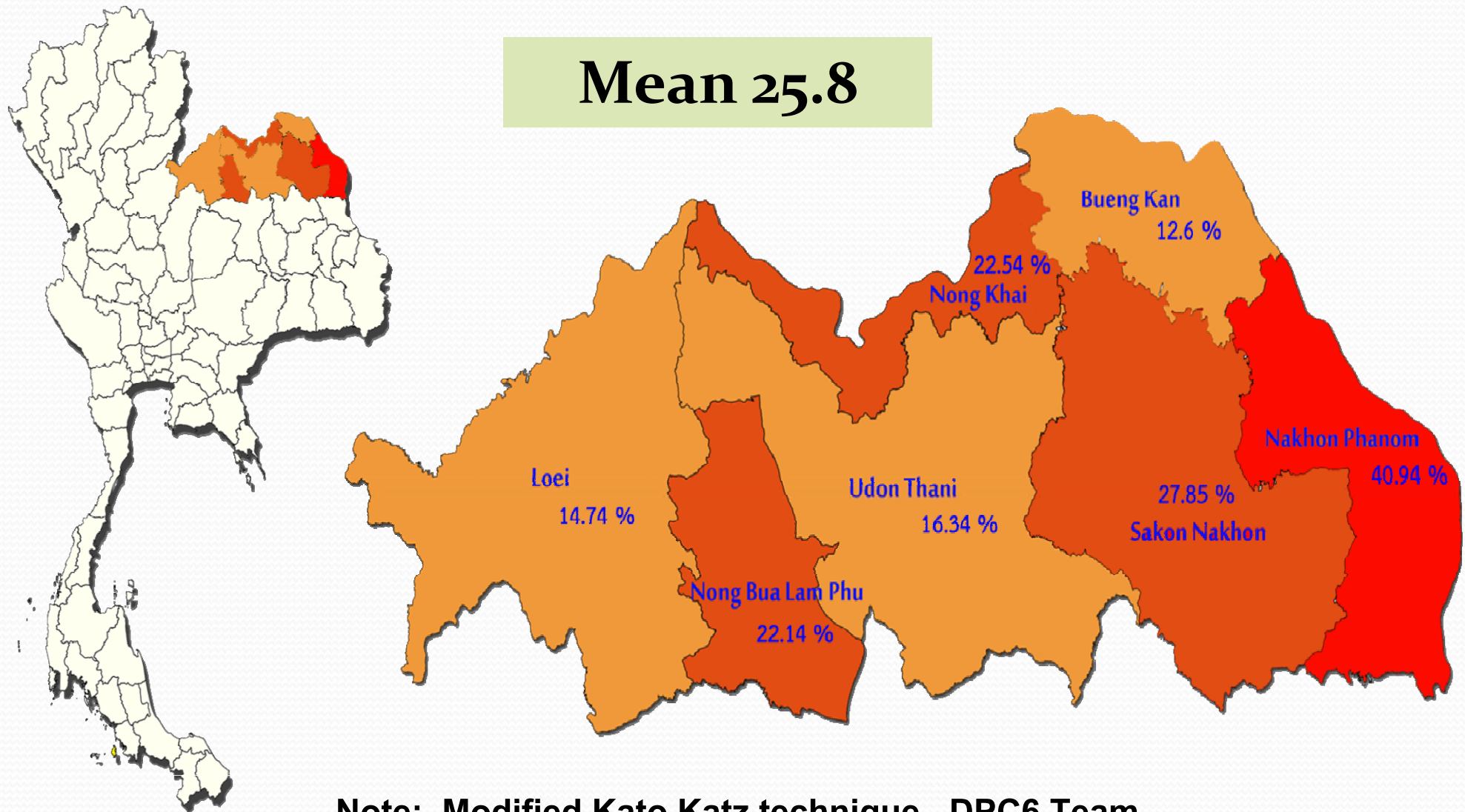
■ Quantitative data

- Knowledge and behavior in preventing liver fluke .
- Modified Kato Katz technique was applied to identify the prevalence of opisthorchiasis.

■ Qualitative data

- Four focus group discussions
- 18 in-depth interviews.

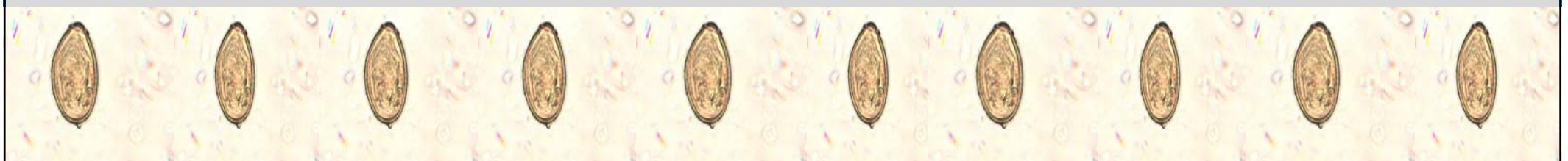
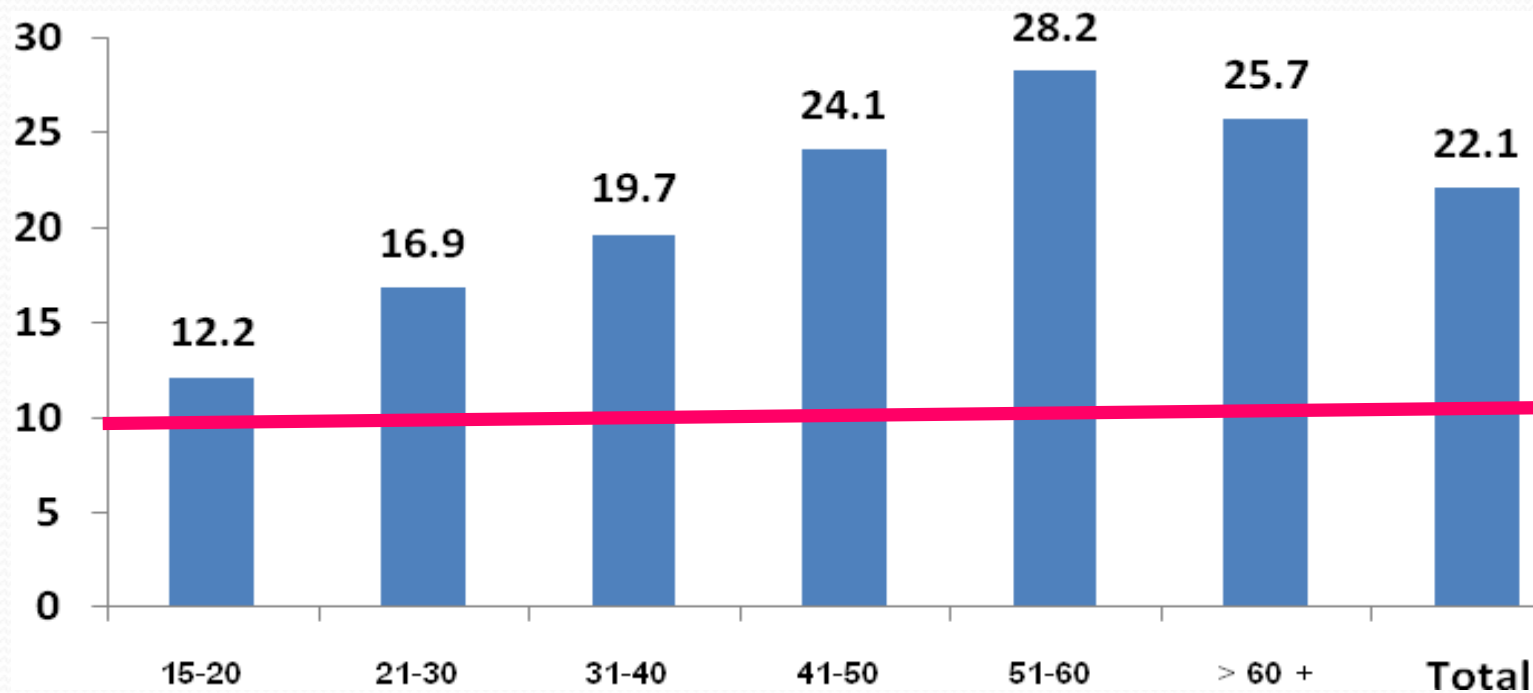
Prevalence rate of Opisthorchiasis by Province, Northeast Thailand, 2013



Note: Modified Kato Katz technique , DPC6 Team

Prevalence rate of Opisthorchiasis by Age-group, Northeast Thailand, 2013

Prevalence rate (%)



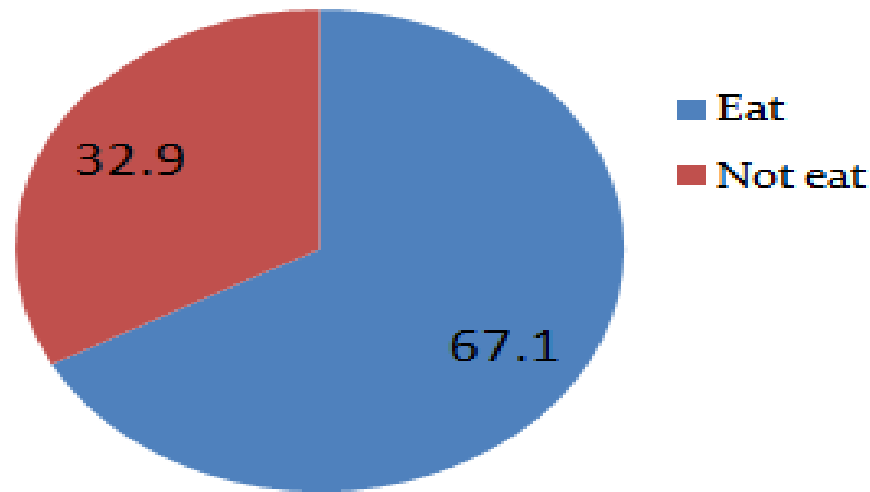
Knowledge level on OV infection (3,916)

Level	n	%
Poor	1,518	38.8
Fair	1,052	26.8
Good	1,346	34.4

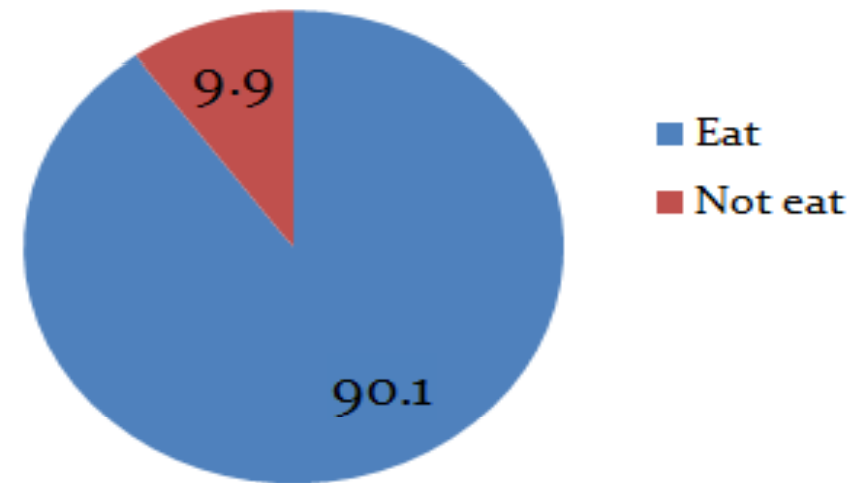
“In our family, everybody eats “Koi pra”. Kids eat because mother makes it. I like it as well. After two months of eating “Koi” we will take medicine. We continue behaving like this for long time”.

Eating fish consumption among Thai people (n= 3,916)

Raw fish

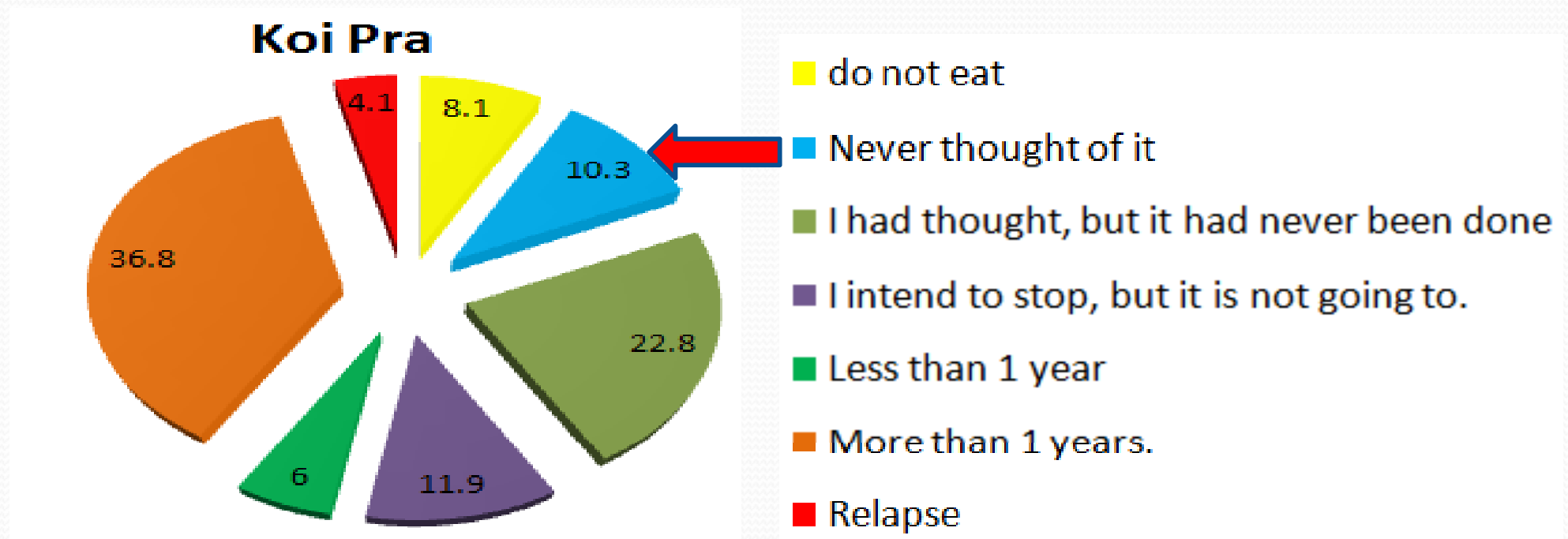


Ferment fish



“It is way of life since our ancestors and it is more delicious and was easy to cook. Pla som or Koi pla dib were consumed at family parties.”

The intention to risk behavior change of the raw fish consumption among Thai people (n =3,916)



“ It is delicious, especially when I could find a fresh fish and cook it as “Koi”, the taste of fish is fresh and sweet. I had been eating for several years, nothing happened to me”

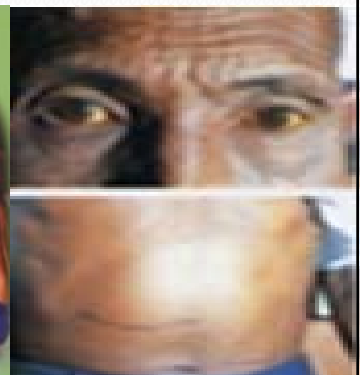
Conclusions

- **Provincial Public Health officer** should have a heightened level of concern to achieve a sustained reduce of OV infection.
- **Community participatory** should apply to achieve a better quality of life for all Thai people



Lesson Learn

- High endemic area (prevalence > 20 %) about **4 of 7 provinces due to the low priority** in local plan.
- People **not awareness for severity of liver fluke infection**. Thus, health risk behavior should be discussed.



Acknowledgements

- All the participants, who participated in study
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and all you of for your attention

