

## 人類生態班 B

## Adult Health Conditions in Changing Rural Villages of Lao P.D.R.

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Research Period and Sites : from 7th to 13th Dec. 2004

Lahanam Zone, Savannakhet province, Laos PDR

要旨：2004年12月にラハナム地域（6村落）のうちベンカムライを除く5村落の成人（15歳～59歳）を対象として、身体計測（身長・体重・皮脂厚など）・血圧・空腹時血糖・試験紙を用いた半定量的尿試験、を行った。ランダムサンプリングを目指したが、実際には男性より女性の参加が多く（男151人、女314人、合計465人）、また男女の30代・40代の参加が地区民全体の年齢分布より多かった。結果としては、1）男性の身長に secular trend が見られ、近年の栄養状態の改善が示唆されたが、女性では見られなかった。2）肥満者割合は少ない中でも女性で高く、加齢と共に上昇していた。3）高血圧者割合は男女とも年齢と共に上昇していた。4）空腹時血糖値から見た糖尿病患者割合は女性で高く、50歳代では20%に達していた。5）尿検査からは潜在的な腎機能障害や感染症の高さが伺えた。以上のように、ラハナム地域の成人男女に慢性病と感染症が共に存在し、双方とも増加の可能性がある理由について、食生活・生計活動や余暇活動・水などの環境条件や薬物使用などについてさらなる検討が必要である。

## 1. Research Details

## Duration

\* from 7th to 13th Dec.

## Research Items

\* Medical Examination(see details from next slide)

\* House to house Interview

## 2. Medical Examination

## Subjects (Fig. 1)

\* 465 people (151 males and 314 females)

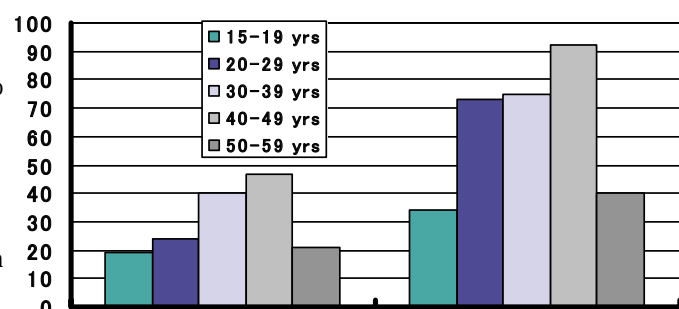
from 5 villages except for Bengkhamlay due to access to the temple

## Items

\* registration

\* anthropometry (body height, weight, arm circumference, skinfold thickness)

Fig.1 Distribution of age by sex



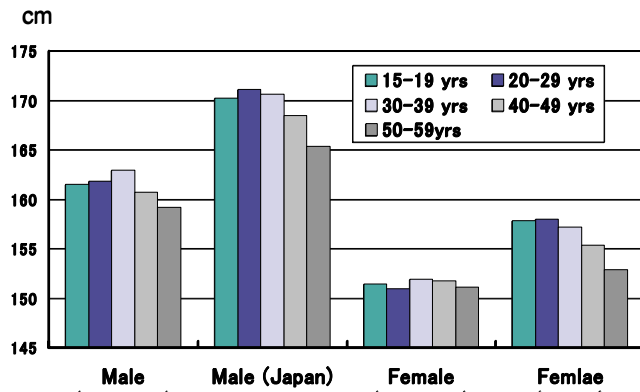
- \* blood pressure
- \* blood glucose (glico card)
- \* urine (dipstick test)

3. Results

• (Fig. 2)

Body height was short compared with Japanese in every age-group and sex. Secular trend was not obvious in Lahanam females.

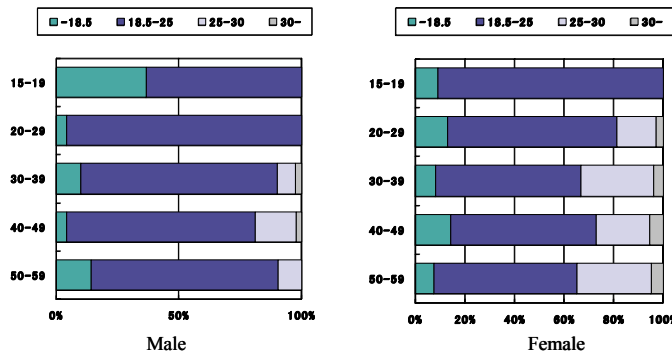
**Fig. 2 Body height of Lahanam people and Japanese (average data in 1995-2001)**



• (Fig. 3)

Proportion of overweight and obese people increased with ageing especially in females. Nevertheless lean people are constantly observed in every age group and sex.

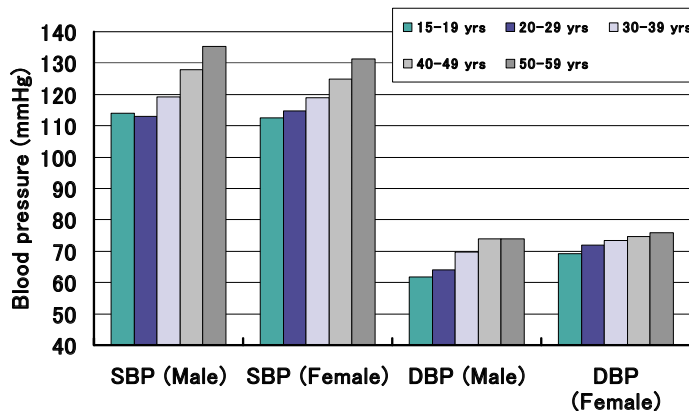
**Fig. 3 BMI-category (lean, normal, overweight and obese) by age roup and sex**



• (Fig 4)

Systolic and diastolic blood pressure were constantly increased with ageing in both sexes.

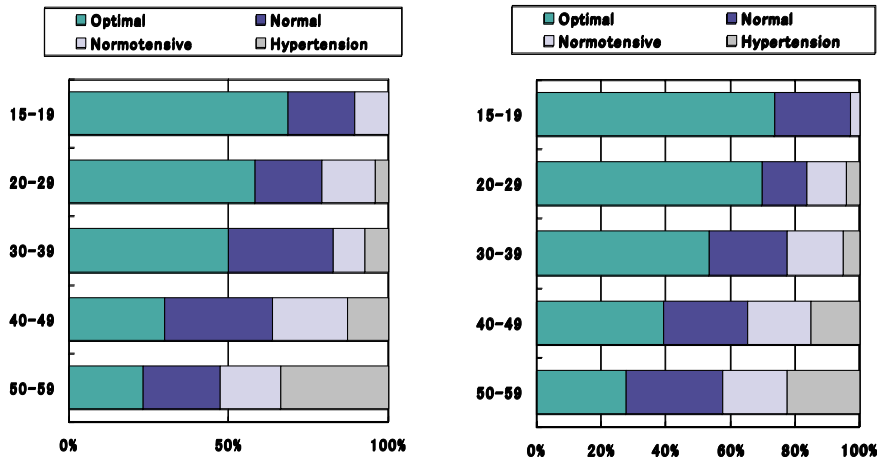
**Fig. 4 Systolic and diastolic blood pressure by age group and sex**



• (Fig. 5)

A good proportion of males and females were categorized into hypertension in their middle ages.

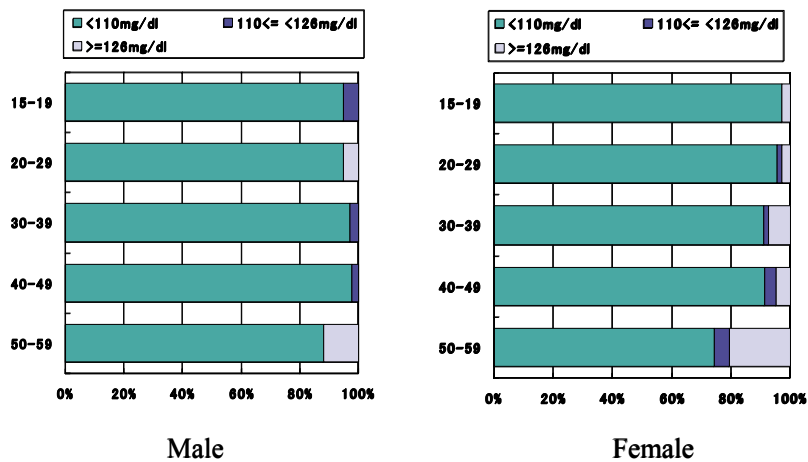
Fig. 5 Blood pressure-category by age group and sex



• (Fig. 6)

Proportion of diabetes mellitus “suspected cases” was increased in accordance with ageing in both sexes. But the values in males’ and females’ 50s did not reach to 40%, which was observed from elderly studies.

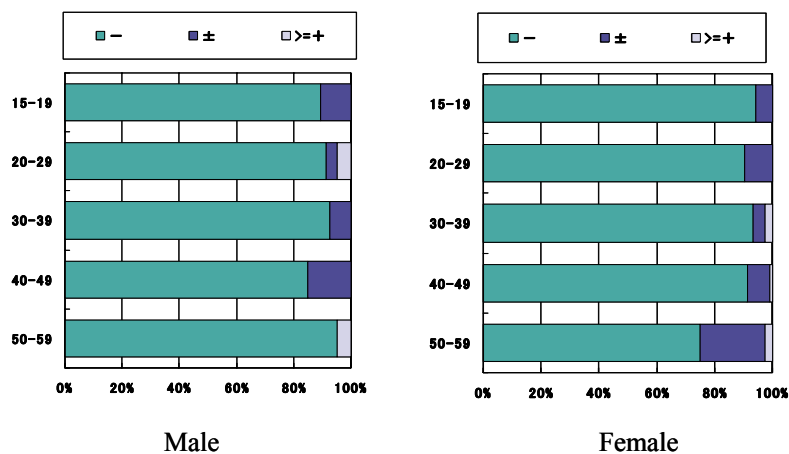
Fig. 6 Fasting blood glucose by age group and sex



• (Fig. 7)

Urinary glucose excretion

Fig. 7 Urinary glucose by age group and sex

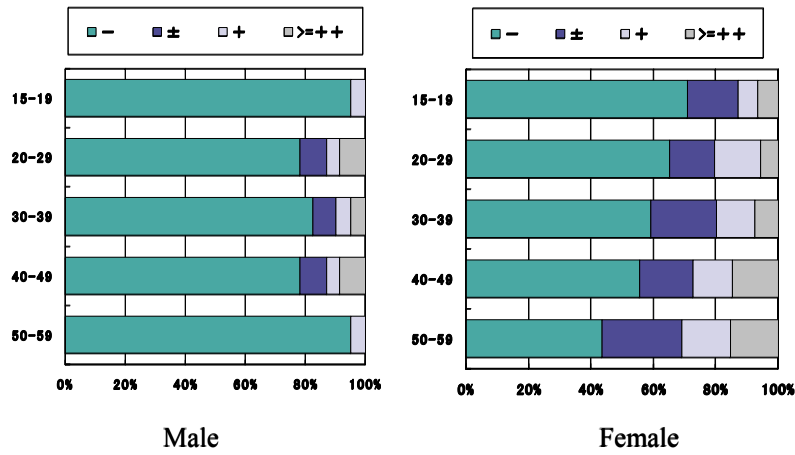


人類生態

• (Fig. 8)

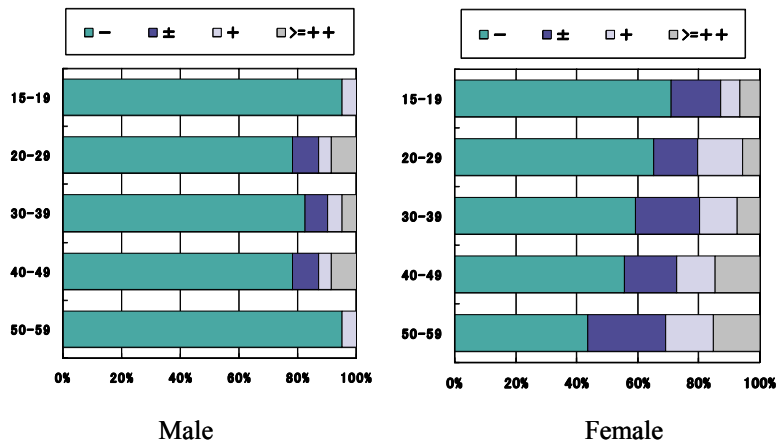
Urinary blood excretion

Fig. 8 Urinary blood by age group and sex (subject having her period was excluded)



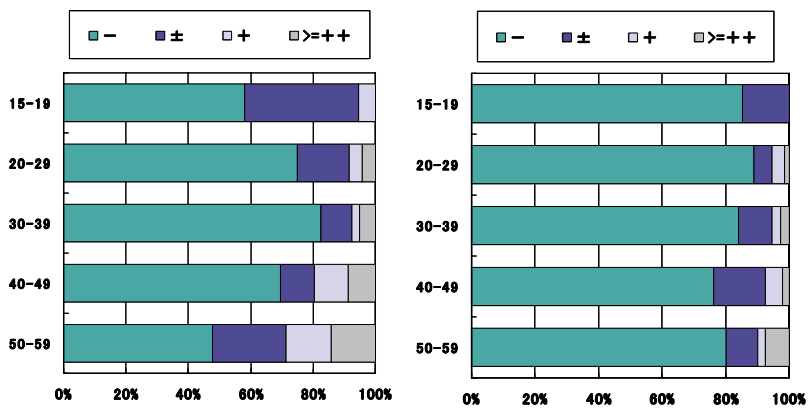
• (Fig. 9) Urinary leukocyte excretion

Fig. 9 Urinary leukocyte by age and sex (subject having her period was excluded)



• (Fig. 10) Urinary protein excretion

Fig. 10 Urinary protein by age and sex



#### 4. Discussion

##### 1) General problems to be solved:

- Improvement (update) of village registration is critically needed.
- Study site (temple is the best place?) – too much dust and rain

##### 2) Problems encountered during our study:

- Include or exclude Bengkhamlay village? - due to difficult access to the study site and possibly people's interest to our study.
- Unbalanced proportion of males and females subjects.
- Moreover, we cannot deny the possibility that healthy people came to the examination.
- Difficulty in asking people overnight fasting.
- Sorry to keep people waiting before testing.

##### 3) For future research:

- Poor nutrition and over nutrition stay together, and we need to have more methodologies to evaluate the former.
- How to evaluate disabled people?
- How to recruit more male subjects?