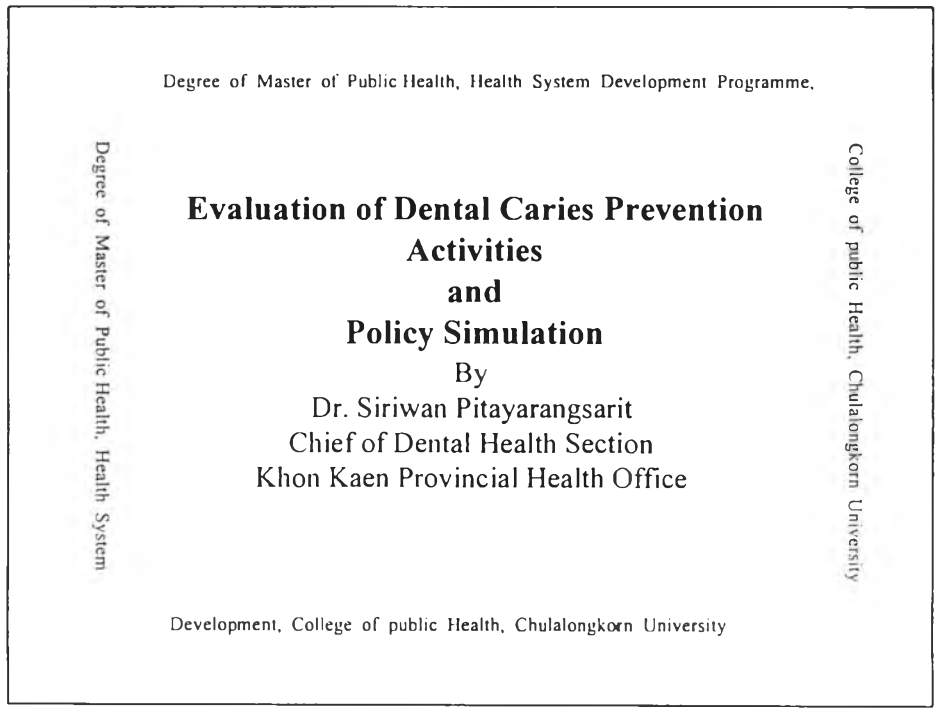
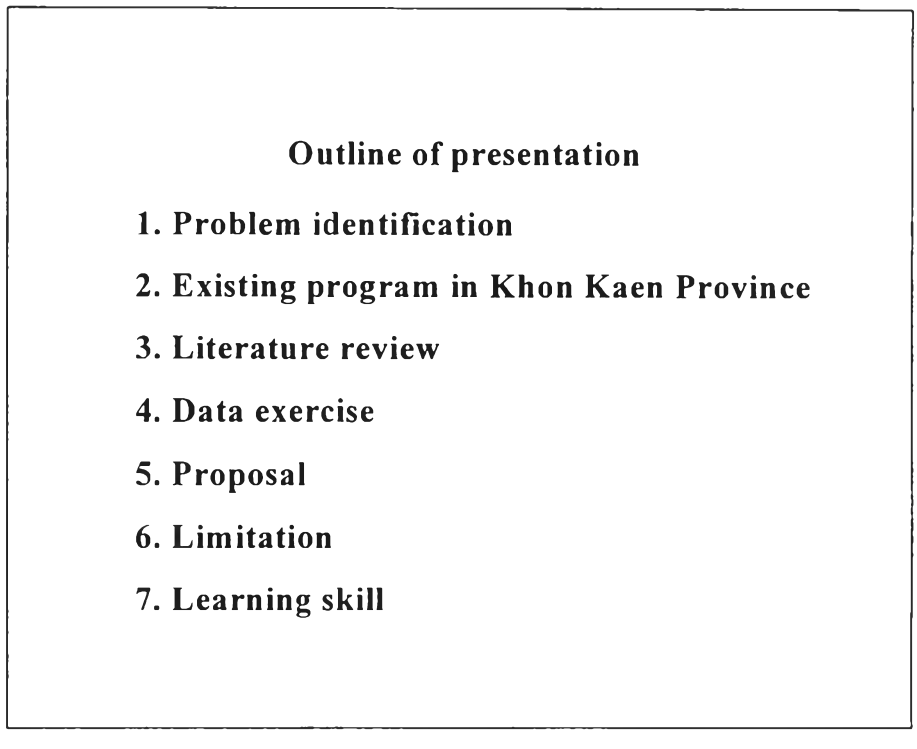
CHAPTER V

Presentation

Slide –1



Slide- 2



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High prevalence & Increasing trend of Dental Caries in Khon Kaen preschool children

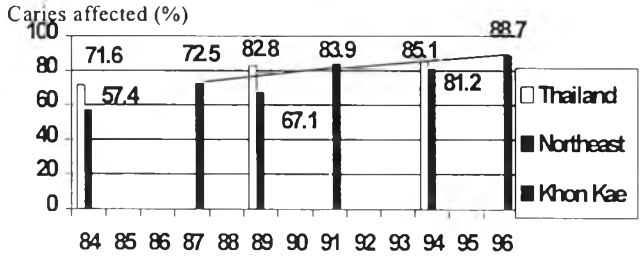

Figure 1: Caries prevalence in 5-6 year-old group
Source : Thai National Survey, 1994
: Khon Kaen Survey, 1996

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Existing program in Khon Kaen

: Dental health education

: Fluoride drops & tablets distribution

: Toothbrush distribution

: Extending distribution by volunteer

Slide- 5

Existing program in Khon Kaen

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Data exercise

Objective :
To analyze the correlation factors and policy simulation

Methodology : Econometrics

Collecting data : Quantitative
: Qualitative

Data analysis : Descriptive
: Inference

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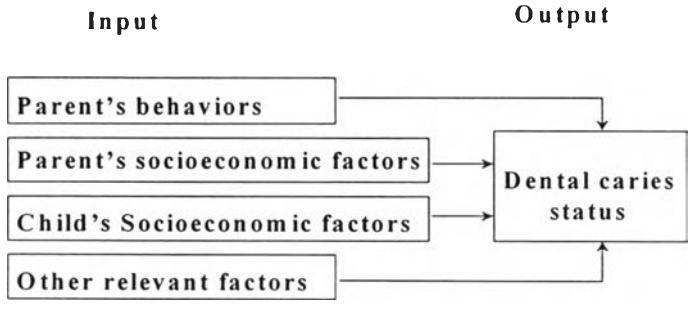

Figure 4.1 Conceptual framework of factors influencing to dental caries

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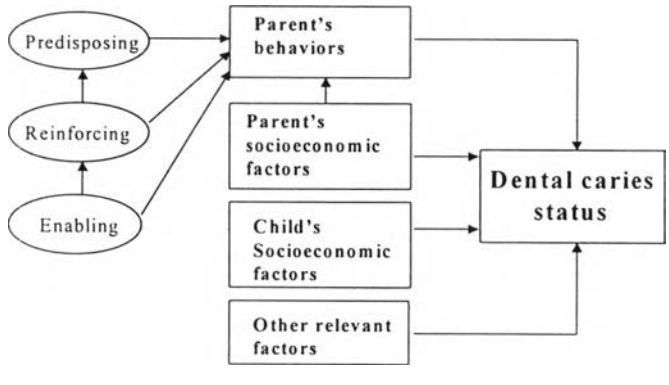

Figure 4. Path model of factors influencing to dental caries

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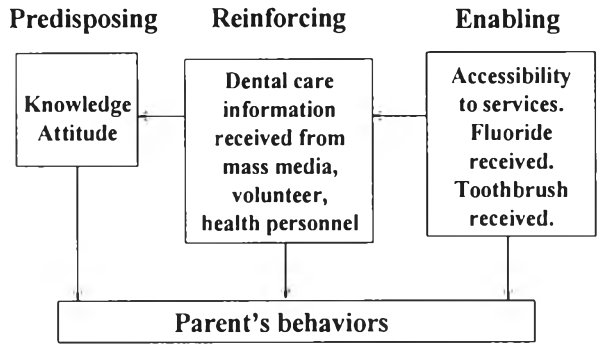

Figure 4.2 Influencing factors of parent's behaviors.
Based on PRECEDE-PROCEED model (Green&Kreuter,1991)

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Econometrics

is the science of model building consisting of a set of tools which are used to construct and then test mathamatical representation of portions of the real world

Ref: Pindyck & Rubinfeld (1981)

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Production function
of
Dental Caries Status

dmfs = k + b1 (child age)
+ b2 (child sex)
+ b3 (parent's age)
+ b4 (relationship of parent)
+ b5 (parent's education)
+ b6 (knowledge)
+ b7 (attitude)
+ b8 (information from mass media)
+ b9 (information from volunteer)
+ b10 (information from health personnel)
+ b11 (received fluoride supplement)

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dmfs = f (Parent's behaviors,
socio-economic status of parent,
socio-economic status of child.)

Significant variables :

- **Child age** **(p<.01)**
- **Child sex** **(p<.01)**
- **Parent's education** **(p<.01)**
- **Parent's age** **(p<.05)**
- **Received information from health volunteer** **(p<.05)**

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Policy simulation

On the assumption of all parents received dental health information from health volunteers and other factors are constant.

dmfs = 8.65

Caries reduction = 100 * (8.65 - 13.21) /13.21

= - 34.52 %

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Proposal

1. **Improve effectiveness by health volunteer approach**
2. **Fluoride drops & Fluoride dentrifrice as a strategy**
3. **Improve database**
   - **Include other relevant factors**
   - **: Dietary habit , sugar consumption**

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Community Participation

Level : Information shairing

Instrument : Health volunteers

as dental health educators,

as fluoride distributors,

as administrators.

Objective : To reduce dental caries in pre-school children