CHAPTER V

PRESENTATION

I presented the overall view of my thesis on the topic " The school Teacher's Training An Intervention for Reducing Iodine Deficiency Disorders in Nepal" on 7 th October 1997 to the examination committee. The presentation was divided into four parts, introduction, essay, proposal, and data exercise. The contents of the transparencies are mentioned as follows sequentially as shown to the examination committee.

TOPIC

THE SCHOOL TEACHER'S TRAINING :

AN INTERVENTION

FOR

REDUCING IODINE DEFICIENCY DISORDERS

IN NEPAL

GENERAL PURPOSE OF THIS STUDY

TO INCREASE IODISED SALT CONSUMPTION

BY

CHANGING PEOPLE'S SALT STORING AND

WASHING BEHAVIOUR

FOR

REDUCING IODINE DEFICIENCY DISORDERS

IN NEPAL

ISSUE

TO INCREASE IODINE CONSUMPTION PRACTICES

IN NEPAL

REASONS :

- GEO - PHYSICAL FACTORS

- BIO - CHEMICAL FACTORS

- SOCIO - CULTURAL FACTORS

- ECONO - POLITICAL FACTORS

- INFORMATIONAL - TECHNOLOGICAL FACTORS

HYPOTHESIS

TEACHER'S TRAINING MAY IMPROVE THE

IODISED SALT CONSUMPTION

PRACTICES

EVIDENCES :

- AMONG 75 DISTRICTS 40 DISTRICTS HAS BEEN FOUND IDD PREVALENCE

- 40 % PREVALENCE OF IDD IN THE COUNTRY (1985)

- 23 % PREVALENCE OF GOITRE IN NUWAKOT DISTRICT (1992)

- 75 - 97 % PREVALENCE OF GOITRE IN DANG DISTRICT (1994)

- MOST OF THE PEOPLE'S IN THE COUNTRY USED THEIR SALT AFTER WASHING

- MAJORITY OF PEOPLE'S IN THE COUNTRY STORED SALT IN NEAR AND OVER THE CHULO / AGENO (OVEN) (NMIS, 1996)

- 38 % OF SALT IN THE MARKET FOUND MARGINAL LEVEL OF IODINE (NMIS, 1996)

- 12 % OF SALT IN THE MARKET FOUND NO IODINE (NMIS, 1996)

OVERALL GOAL :

TO INCREASE IODISED SALT CONSUMPTION

BY CHANGING SALT STORING AND SALT WASHING BEHAVIOUR

IN RAUTBESI VILLAGE OF NUWAKOT DISTRICT

OBJECTIVES OF THE STUDY :

TO TEST THE STRATEGY OF TEACHER'S TRAINING

TO EDUCATING PEOPLE THROUGH THE TEACHERS - CHILD - TO - PARENTS APPROACH

SPECIFIC OBJECTIVES :

1. TO DEVELOP THE TRAINING CURRICULUM

2. TO PREPARE TRAINING GUIDELINES

3. TO TEST THE TRAINING CURRICULUM AND GUIDELINES

4. TO PRE TEST THE TEACHER'S KNOWLEDGE BEFORE THE TRAINING

5. TO POST TEST THE TEACHER'S KNOWLEDGE AT THE END OF TRAINING

6. TO DEVELOP THE CHILDREN'S CURRICULUM

7. TO SUPERVISE THE PROGRAM AT SCHOOL

8. TO MONITOR THE PROGRAM AT HOME

9. TO EVALUATE THE IMPACT OF TEACHER'S TRAINING PROGRAM

STUDY DESIGN :

ACTION RESEARCH

STUDY SITE :

RAUTBESI VILLAGE OF NUWAKOT DISTRICT, NEPAL

TARGET POPULATION :

CHILD BEARING AGE MOTHERS AND BELOW 15 YEARS CHILDREN

SAMPLING PROCEDURE :

PURPOSIVE SAMPLING

DATA COLLECTION PROCEDURE :

- FOCUS GROUP DISCUSSION WITH MOTHERS

- GOITRE EXAMINATION IN SCHOOL CHILDREN

- URINE SAMPLE COLLECTION IN SCHOOL CHILDREN

- MONITORING AND SUPERVISION REPORT

DATA COLLECTION INSTRUMENTS :

- FOCUS GROUP GUIDELINES FOR MOTHERS

- FOCUS GROUP GUIDELINES FOR TEACHERS

- RAPID SURVEY QUESTIONNAIRE FOR MOTHERS

DATA EXERCISE IN PHAHURAT:

FOCUS GROUP DISCUSSIONS RESULTS AND FINDINGS :

- DUE TO LACK OF KNOWLEDGE ABOUT IODINE PEOPLE'S STORE SALT IN HOT PLACES (CHULO & AGENO)

- PEOPLE'S USING THOSE SALT WHICH IS EASILY FOUND IN THE MARKETS

- PEOPLE'S HAVE MISBELIEF ABOUT BLACKNESS OF SALT, SUCH AS BLACK SALT IS DIRTY, DUSTY AND MAY CAUSE DISEASES

(THE BLACKNESS OF SALT IS NOT DUE TO DUSTY, DIRTY BUT IT IS DUE TO THE IODINE SPRAYED OVER THE CRYSTAL SALT AT THE PRODUCTION SITE)

- PEOPLE'S BELIEVE THEIR CHILDREN'S ADVICE WHAT THEY LEARNED FROM THE SCHOOL, SUCH AS THEY CHANGED THEIR BEHAVIOUR ABOUT NAIL CUT, NEAT AND CLEANING HOUSES, etc.

CONTENT OF THE STUDY :

ESSAY :

- PROBLEM IDENTIFICATION

- FACTORS AFFECTING IODINE DEFICIENCY DISORDERS

- POSSIBLE ALTERNATIVE SOLUTIONS

- BEST OF THE ALTERNATIVE SOLUTION

- BEHAVIOUR CHANGE MODEL AND COMMUNICATION / BEHAVIOUR CHANGE FRAMEWORK

PROPOSAL :

- BACKGROUND INTRODUCTION

- OBJECTIVES OF THE STUDY

- SPECIFIC OBJECTIVES

- PROPOSE STATEMENT OF THE STUDY

-TEACHER'S TRAINING PROGRAM

- SUPERVISION AND MONITORING

- MID TERM AND IMPACT EVALUATION

DATA EXERCISE :

- METHODS OF THE DATA EXERCISE

- DATA EXERCISE INSTRUMENTS

- OBJECTIVES OF THE DATA EXERCISE

- RESULTS AND FINDINGS OF THE DATA EXERCISE

- LESSON LEARNED

Global Distribution of Iodine Deficiency Disorders

Table 2.4. Total number of people and percentage of regional population living in areas at risk of IDD and affected by goitre.

WHO region	Total population (millions)	At risk of IDD (millions)	Percentage of region at risk	Population with goitre (millions)	Percentage of region
Africa	550	181	32.8	86	15.6
Americas	727	168	23.1	63	8.7
Eastern Mediterranean	406	173	42.6	93	22.9
Europe	847	141	16.7	97	11.4
South East Asia	**1355**	**486**	**35.9**	**176**	**13.0**
Western pacific	1553	423	27.2	141	9.0
Total	**5438**	**1572**	**28.9**	**655**	**12.0**

Source : Detels Roger et al., (1997).

Table 2.10. Current status of IDD elimination programmes in WHO - SEARO Countries (goitre prevalence (survey / resurvey) and current intervention strategy)

No.	Country	Goitre prevalence (Year of survey / resurvey)	Current intervention strategy for IDDEP
1.	Bangladesh	47 % (1993)	Iodised salt / Iodised oil
2.	Bhutan	14 % (1996)	Iodised salt
3.	DPR Korea	14 % (1996)	Iodised salt
4.	Indonesia	33 % (1993)	Iodised salt / Iodised oil capsules
5.	India	2.3 - 68.6 % (1996)	Iodised salt
6.	Maldives	24 % (1995)	Iodised salt introduced
7.	Myanmar	33 % (1994)	Iodised salt / Iodised oil
8.	Nepal	44 % (1992)	Iodised salt / Iodised oil
9.	Sri Lanka	19 % (1989)	Iodised salt
10.	Thailand	8 % (1994)	Iodised salt, water / Iodised oil capsules

Source : Pandav et al., (1997).

Table 2.3. Consequences of iodine deficiency :

Stage	Consequences
Foetus	Abortions, Still births, Congenital anomalies, Increased perinatal and Infant mortality, Neurologic cretinism (mental deficiency, deaf mutism, spastic diplegia, squint) and in Myxoedematous cretinism (dwarfism, mental deficiency) and psychomotor defects.
Neonate	Neonatal goitre, and neonatal hypothyroidism.
Child adolescent	Goitre, Juvenile hypothyroidism, impaired mental function, retarded physical development.
Adult	Goitre with its complications, like obstruction in throats, and Cancer, Iodine - induced hyperthyroidism, Hypothyroidism, impaired mental function.

Source : Hetzel, 1989 .

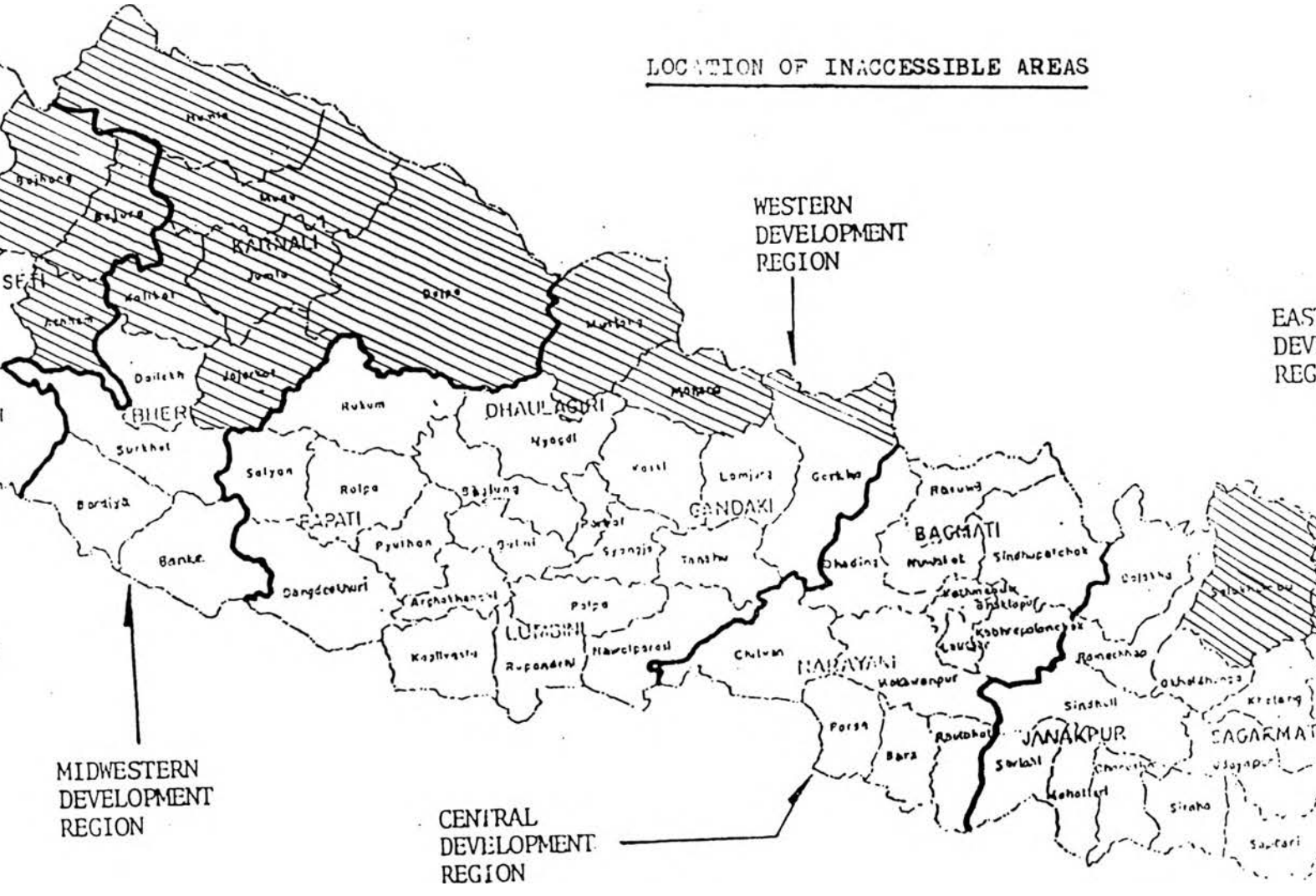

LOCATION OF INACCESSIBLE AREAS
WESTERN
DEVELOPMENT
REGION
MIDWESTERN
DEVELOPMENT
REGION
CENTRAL
DEVELOPMENT
REGION
KARNALI
DHAULAGIRI
GANDAKI
BAGMATI
JANAKPUR
NARAYANI
LUMBINI
RAPTI
BHERI
Humla
Jumla
Mugu
Dolpa
Mustang
Manang
Rukum
Rolpa
Salyan
Pyuthan
Gulmi
Palpa
Arghakhanchi
Kapilvastu
Rupandehi
Nawalparasi
Chitwan
Makwanpur
Parsa
Bara
Rautahat
Sarlahi
Mahottari
Sindhuli
Ramechhap
Dolakha
Sindhupalchok
Kavrepalanchok
Lamjung
Gorkha
Tanahu
Syangja
Kaski
Myagdi
Baglung
Parbat
Dhading
Nuwakot
Rasuwa
Dailekh
Jajarkot
Surkhet
Bardiya
Banke
Dang
Sirahа
Saptari

Table 2.12. Costs of IDD control measures :

Particulars	US $ and Cents
Iodised salt	2 - 4 cents per person per year
Iodised oil injections	2. oo $
Iodised oil capsules	40 cents for half coverage period comparison to injection.
Water iodination	o. o4 $ per person per year

Source : Hetzel, 1988.

Table 2.13. Cost of Iodised salt in Nepal :

Types of salt	Brand name	Price (per kilogram)
Phoda salt	Dhike (loose)	3 - 4 Rupees (7 US Cents)
Crushed salt	Shakti (non subsidised)	4 - 5 Rupees
Crushed salt	Bhanu (subsidised)	5 - 15 Rupees (only remote districts)
Refined salt	Ayonoon, Tata (Indian brand)	7 Rupees (13 US Cents)

One US $ = 57.30.

Source : Gorstein & Houston, (1996).

"In Asia, the cost of iodised salt production and distribution at present is of the order of US 3-5 cents per person per year" (WHO, 1996).

Figure 2.1. Conceptual Framework :

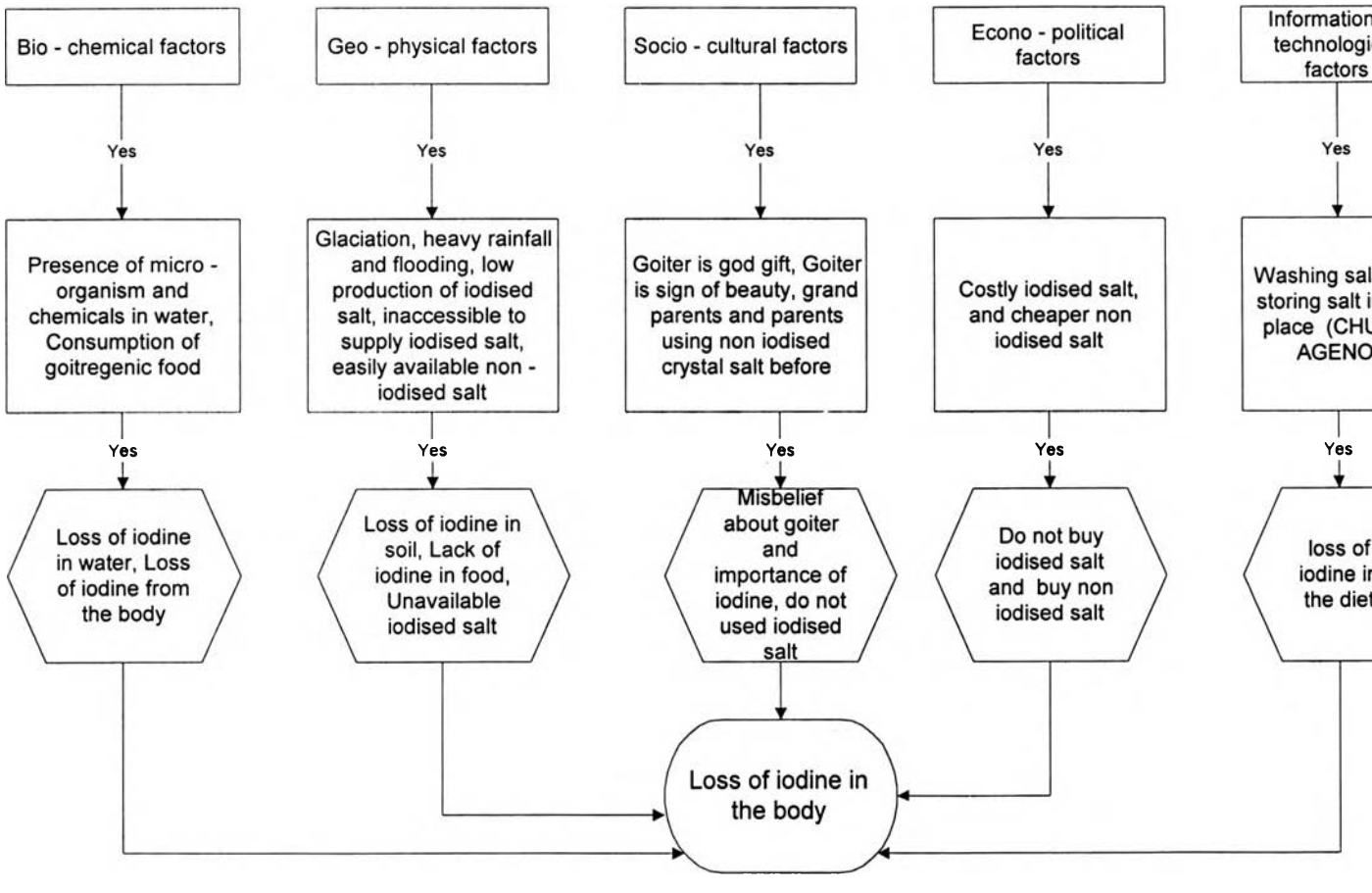
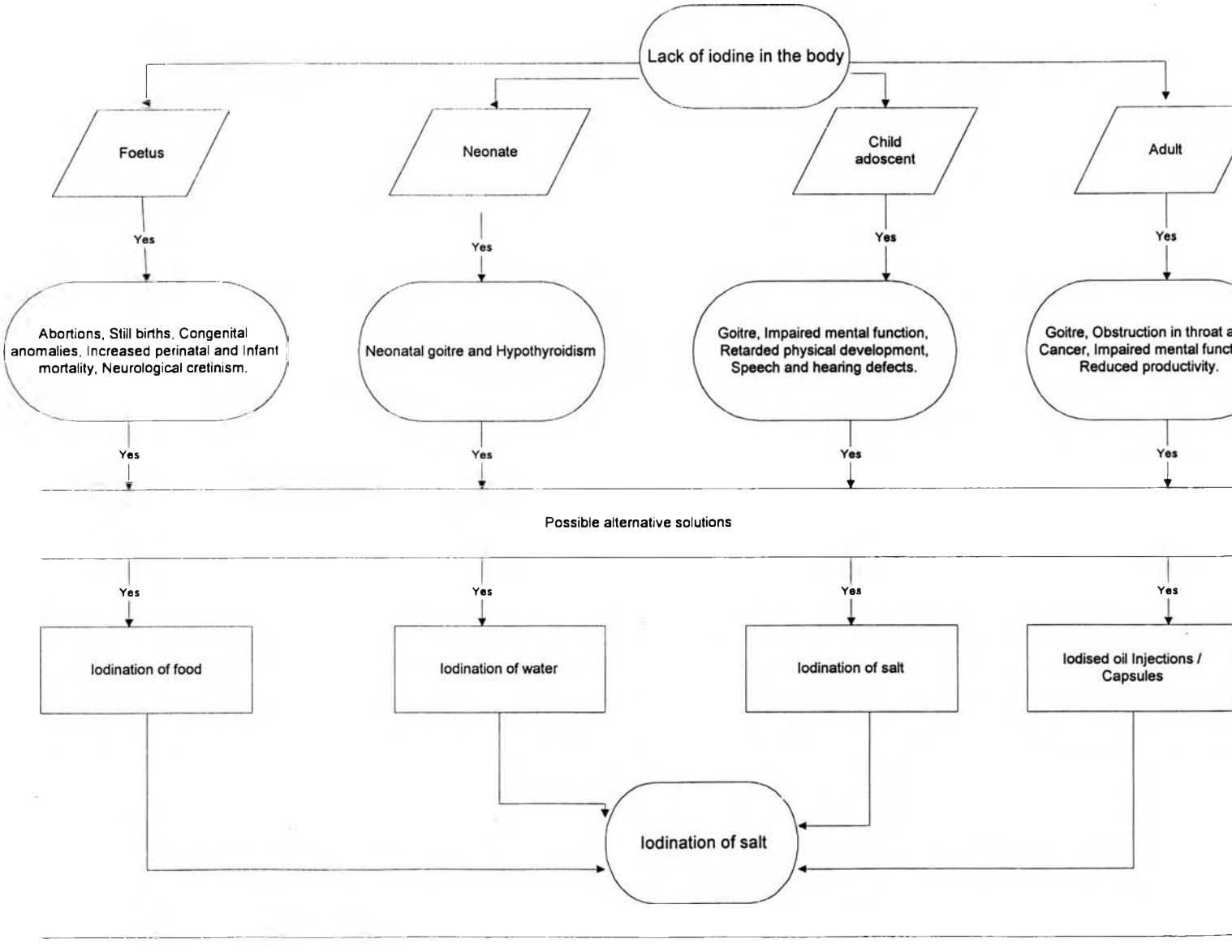
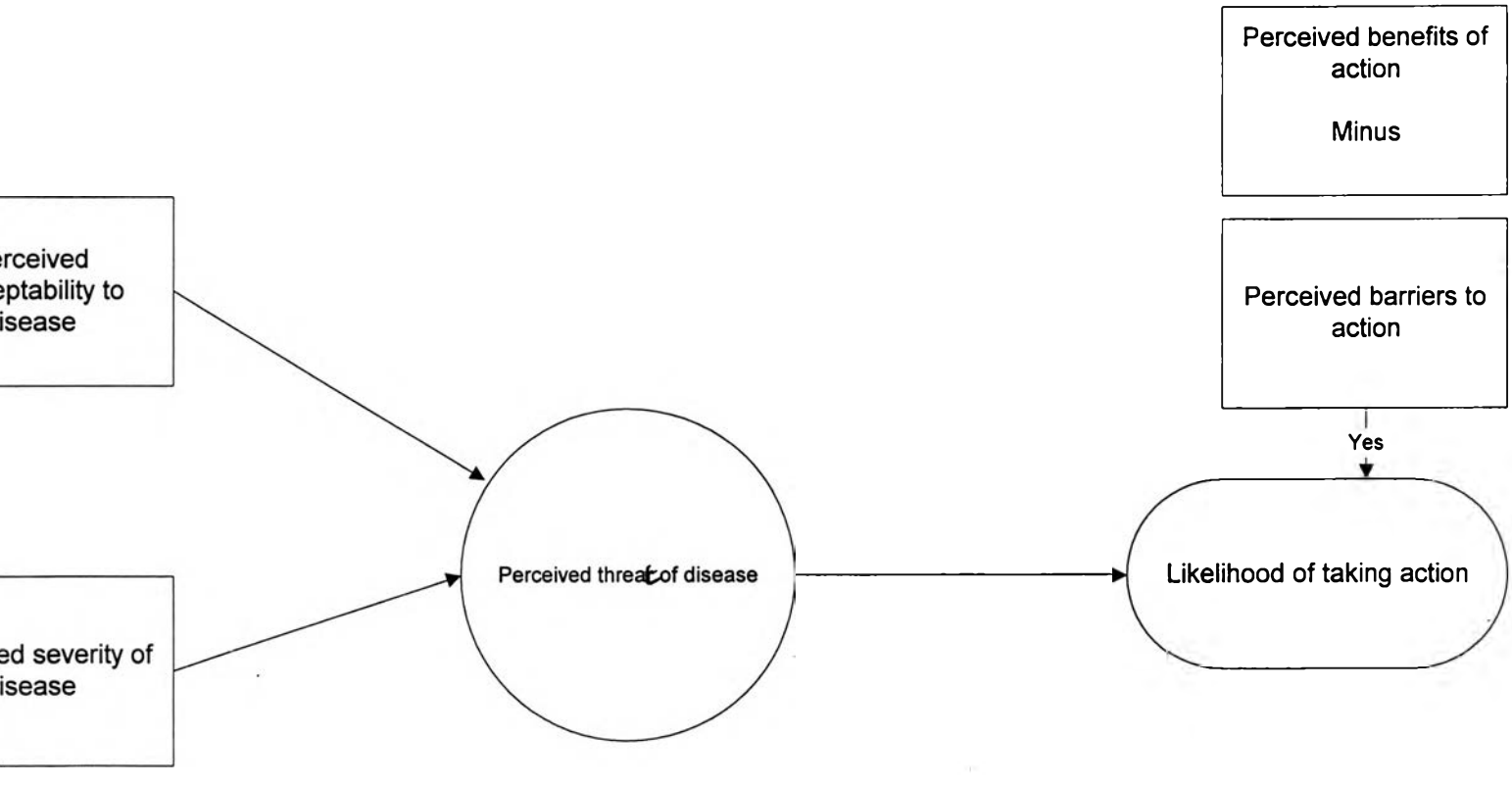


Figure no. 1. A conceptual framework of causes and consequences of iodine deficiency disorders.


Lack of iodine in the body
Foetus
Neonate
Child adoscent
Adult
Yes
Yes
Yes
Yes
Abortions, Still births, Congenital anomalies, Increased perinatal and Infant mortality, Neurological cretinism.
Neonatal goitre and Hypothyroidism
Goitre, Impaired mental function, Retarded physical development, Speech and hearing defects.
Goitre, Obstruction in throat a Cancer, Impaired mental funct Reduced productivity.
Yes
Yes
Yes
Yes
Possible alternative solutions
Yes
Yes
Yes
Yes
Iodination of food
Iodination of water
Iodination of salt
Iodised oil Injections / Capsules
Iodination of salt

am of the Health Belief Model



rce : Kaplan et.al. (1993).

Table 2.14. Framework of CBC :

Functions of sender of communication	Objectives for behavioural change in receiver
Gain attention / set agenda	Become aware
Provide information	Increase knowledge
Clarify incentives	Increase motivation
Model behaviours	Learn skills
Provide training	Use skills to change
Cues to action	Incorporate change into lifestyle
Provide support	Maintain changed behaviours.

Source : Dignan & Carr (1992).