

# **The iHOPE-Project**

## **Implementation Methods and Procedures**

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# Study Locations (3-INDEPTH sites)



# Research questions

- How accurate is a household survey in reporting health expenditure as compared to a gold standard?
  - Are more questions on health expenditures more accurate than fewer questions?
  - How accurate is 4 week recall for health expenditures
  - Is enumerating individual members' health expenditures more accurate than one question for the entire household?
- How accurate is reported symptomatic and symptomatic and diagnosis compared with a gold standard?
- How accurate is (real time) recording of health expenditures by smart phones

# Research questions cont...

- Which level of disaggregation of household expenditures provides a more accurate measure of total household consumption in health surveys?
- How different are estimates on health expenditures (level and share of total) in health surveys with expenditure module compared to household consumption surveys?
- Do types of coping strategies vary with respect to type of expenditure, disease, employment, quintiles, and other variables?

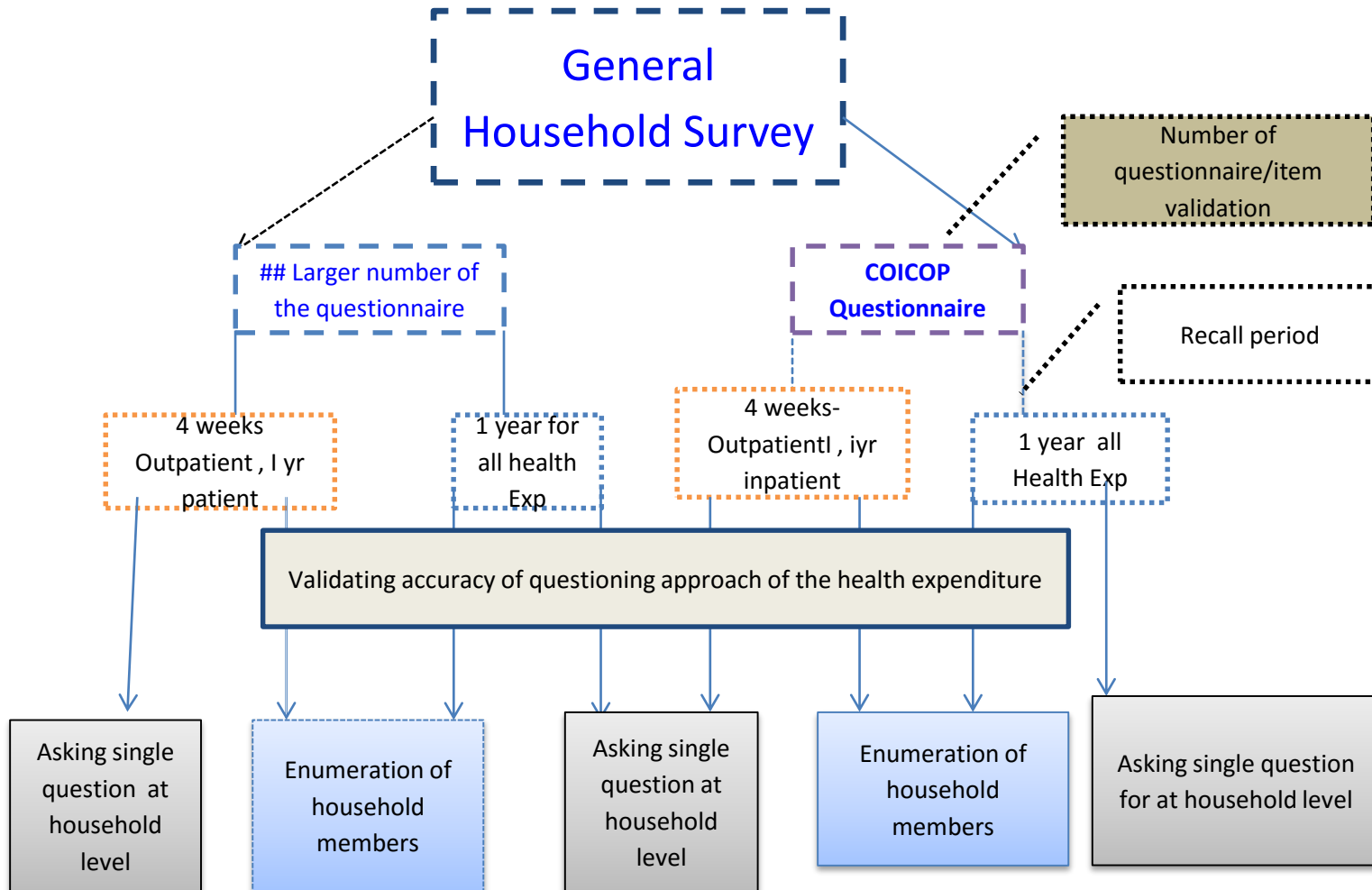
# Research questions cont...

- Do self-reported coping strategies predict short-medium adverse impact of health expenditure (2 years) term?
- Do the symptoms predict the use and non-use of health services? Is this sensitive to the socio-economic status of the respondent?

# **The Validation Process Bench Marks**

- 1. General Household Survey**
- 2. Health Surveys**

# The Validation in General Household Survey



# Classification of Individual Consumption according to Purpose

## (COICOP)

Food and non-alcoholic beverages

Alcoholic beverages, tobacco and narcotics

Clothing and footwear;

Housing, water, electricity, gas and hot water

Furnishing, household equipment

## Health

Transport;

Communication;

Recreation and culture;

Education;

Restaurants and hotels, and miscellaneous goods and services

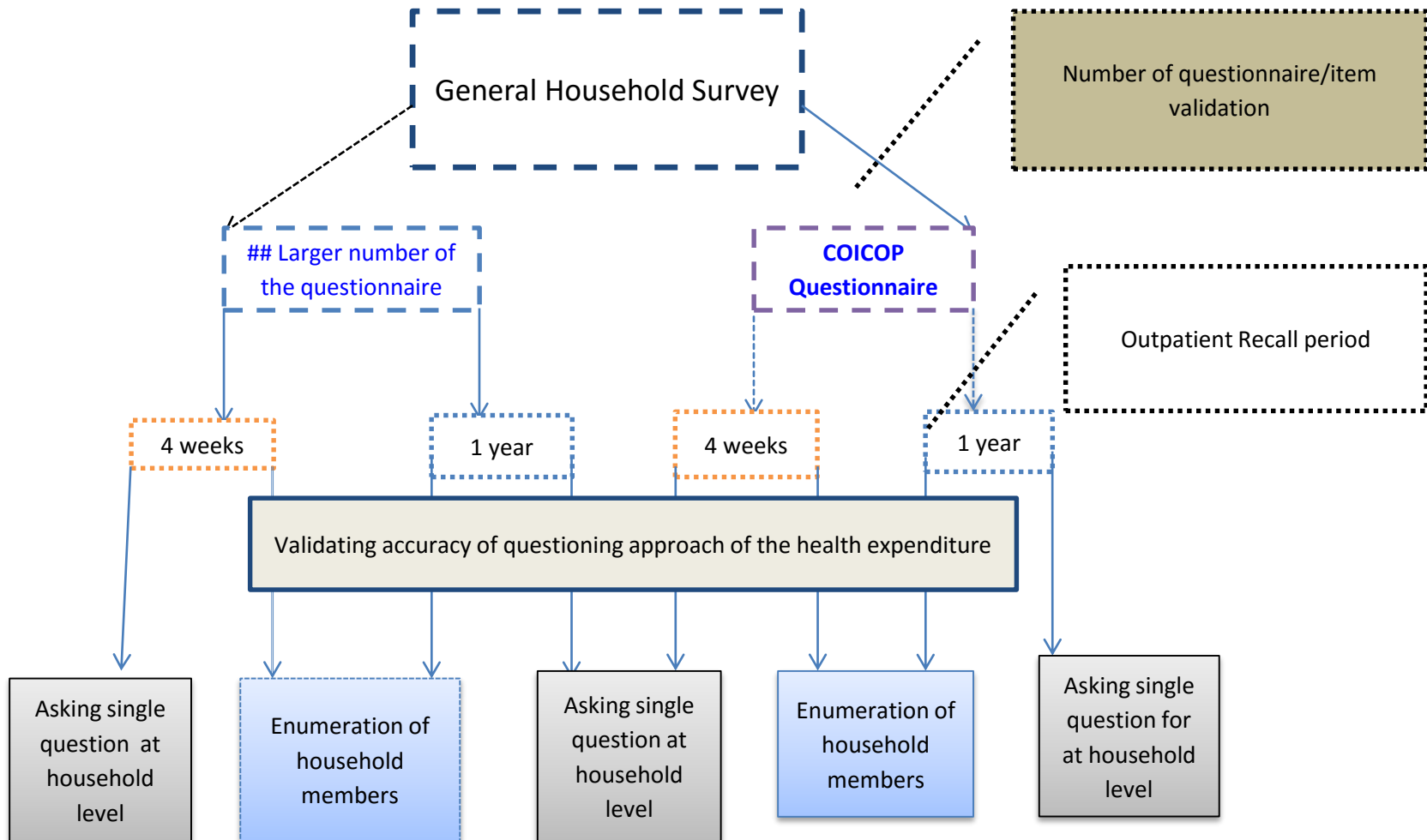
Miscellaneous goods and services

### 06 Health

1. 06.1 Medical Products, Appliances And Equipment
2. 06.2 Outpatient Services
3. 06.3 Hospital Services



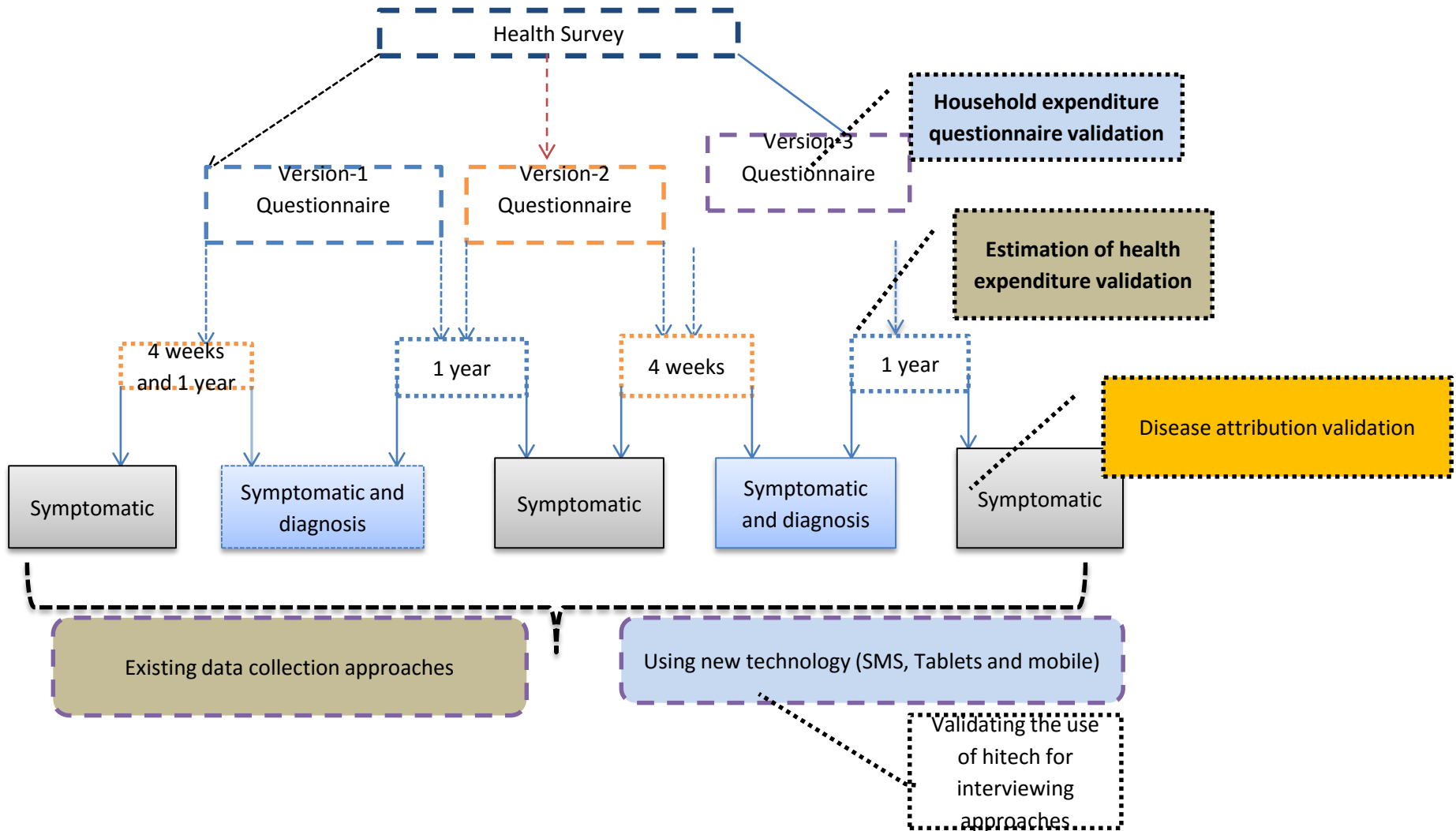
# Blocks of randomization and survey questionnaire



## 8-Survey Questions Blocks of Randomization

Block-I(S4L)	S4L: Single question(S)-four weeks recall (4) - Longer Questionnaire ( L)
Block-II (S1L)	Single question(S)- one-year recall(1 year) -Longer Questionnaire ( L)
Block-III(En4L)	En4L: Enumeration (E)-four weeks recall ( 4) - Longer Questionnaire ( L)
Block-IV (En1L)	En1L: Enumeration (E)- one year recall(1) - Longer Questionnaire ( L)
Block-V (S4C)	S4C: Single question(S)-four-weeks recall- COICOP Questionnaire
Block-VI( S1C)	S1C: Single question(S)-four-weeks recall- COICOP Questionnaire
Block-VII(En4C)	En4C: En4L: Enumeration (E)-four weeks recall ( 4) – COICOP Questionnaire
Block-VIII(E1C)	E1C: Enumeration (E)- one year recall(1) – COICOP Questionnaire

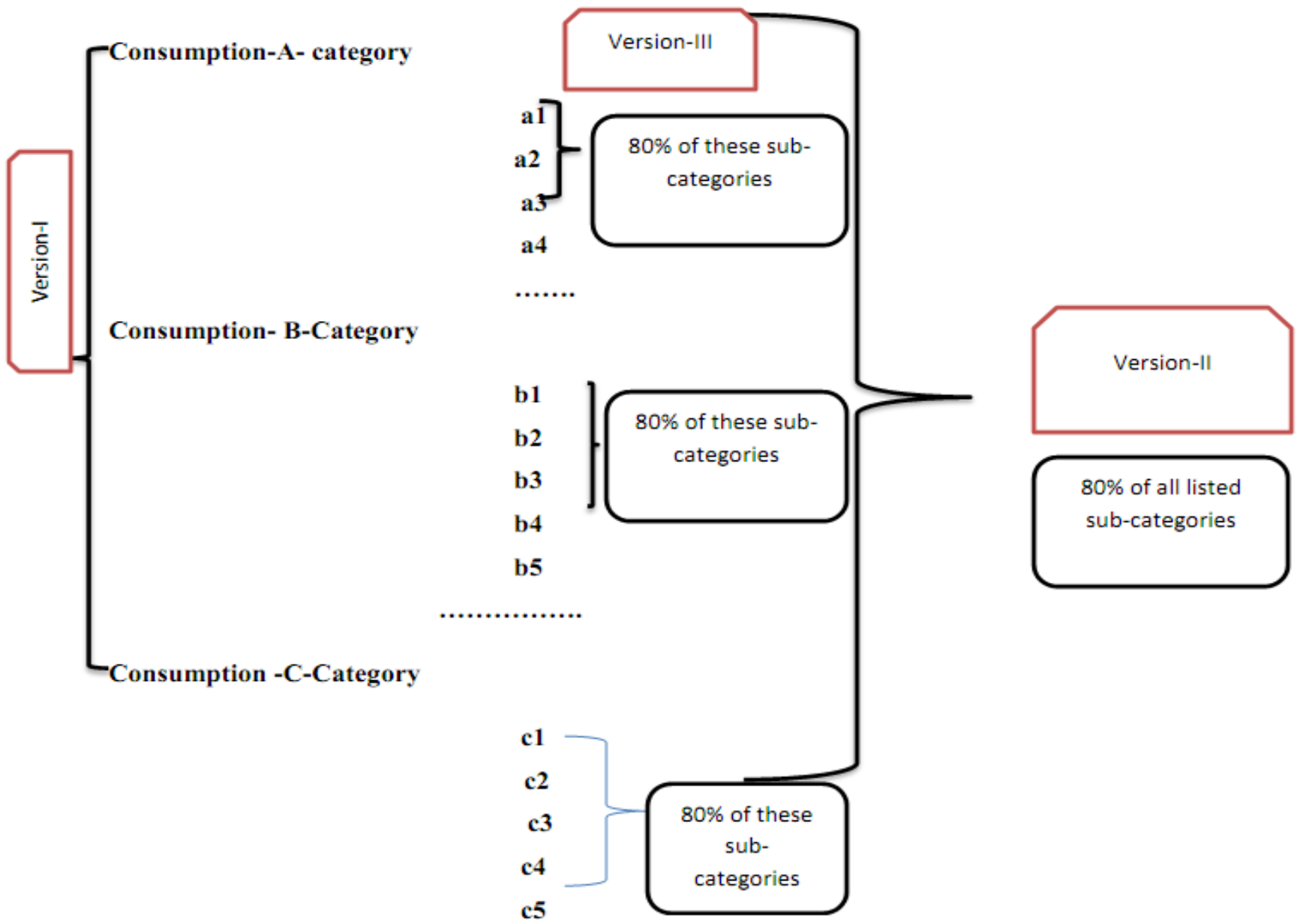
# The Validation Process of the Health Survey



# Household consumption measures(Examples)

Country	Method of data collections	Consumption included	Recall period	Number of items
Burkina Faso	Recall, quantity + total expenditure + frequency	Consumption/purchase + own production + gifts (transfers)	Food: last 12 months Non-food variable	106 non-food item 29 food items Total: 135
Ghana	Diary for food (everything bought over last 5 days) Recall for non-food	Expenses = purchases + gifts + own production	Non-food: past 12 months	244 non-food items 277 food items Total 521
Vietnam	Recall was used	Consumption, purchase, gifts, own production	Non-food: Unusual 12 months & Usual 30 days Food: Festive occasions: 12 months Regular: 30 days	<b>Food:</b> 35 items during the festive period 54 items as unusual  <b>Non- food:</b> 28-items as usual 44 terms unusual Total of 144 items (HE: 4 item, last 12 months)

# Approaches to create short version of household consumption



# Disease for attribution: List of 18 diseases in NHA

1. HIV
2. TB
3. Malaria
4. Respiratory infections
5. Diarrheal disease
6. Neglected disease
7. Vaccine preventable disease
8. Maternal conditions
9. Contraceptive management
10. Nutritional deficiencies
11. Neoplasms
12. Diabetes
13. Cardiovascular disease
14. Hypertension disease
15. Mental conditions (identify neurological)
16. Injuries
17. Non-communicables(chronic respiratory, digestive, ...)
18. Oral disease

## 24-blocks of randomizations of the survey questionnaire

### Example of survey blocks: a sample

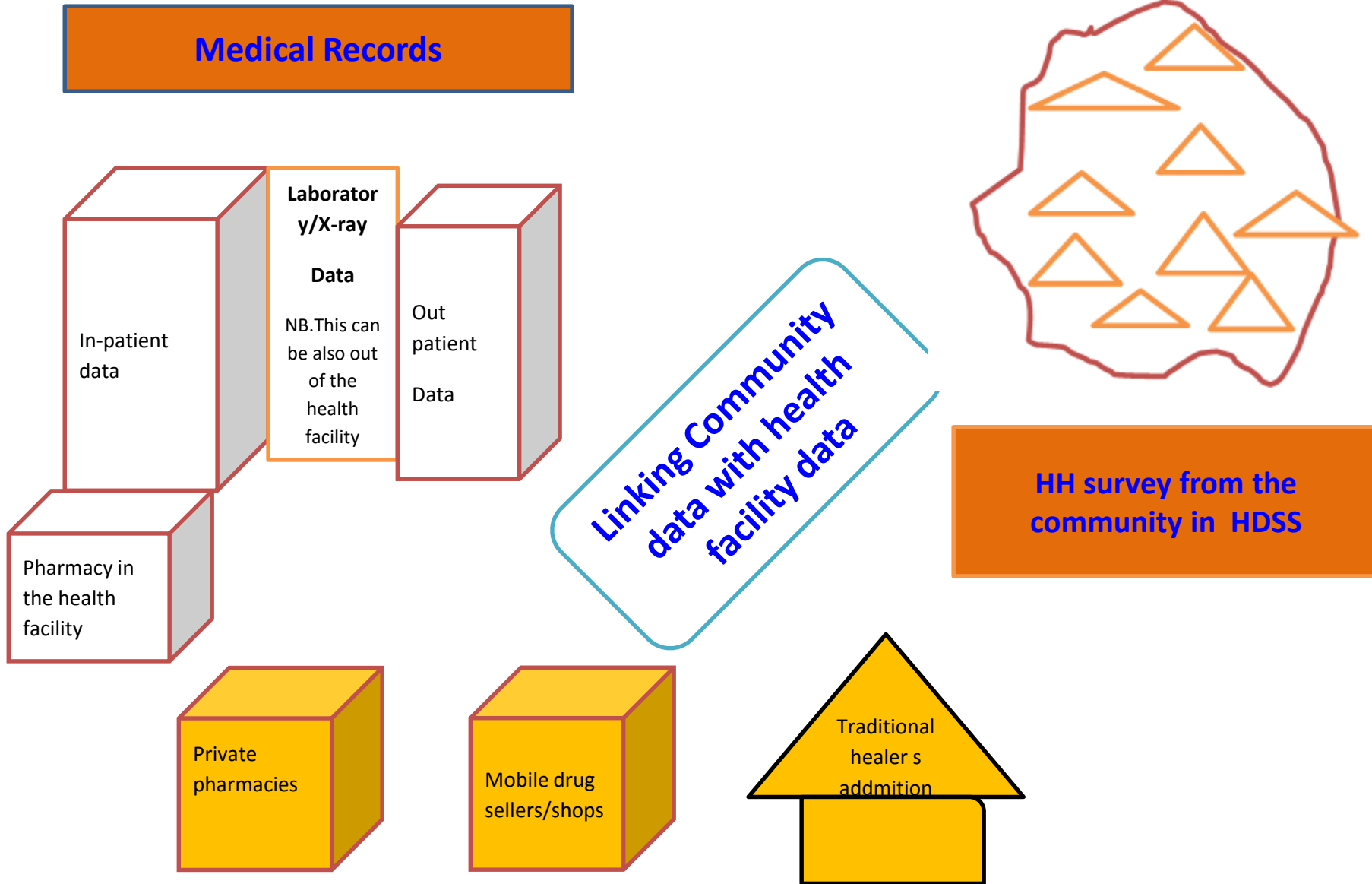
Block-1 (TS1V3)	Hitech (T)- Symptomatic report(S)-one year(1)- and Version three(V3) 1.
Block-2 (TSD1V3)	Hitech (T)- Symptomatic and Diagnosis report (SD)-one year(1)- and Version three(V3)
Block-3 (TS4V3)	Hitech (T)- Symptomatic report(S)- four- weeks (4)- and Version three(V3)
Block-4 (TSD4V3)	Hitech (T)- Symptomatic and Diagnoses report(SD)- four weeks(4)- and Version three(V3)
Block-5 (TS1V2)	Hitech (T)- Symptomatic report(S)-one year(1)- and Version three(V2)
Block-6 (TSD1V2)	Hitech (T)- Symptomatic and Diagnosis report(SD)-one year(1)- and Version three(V2)
Block-7 (TS4V2)	Hitech (T)- Symptomatic report (S)- four- weeks (4)- and Version three(V2)
Block-8 (TSD4V2)	Hitech (T)- Symptomatic and Diagnoses report(SD)- four weeks(4)- and Version three(V2)

# Sample Size Calculation

Sample size estimation is going on, and to get some pilot testing is required



# Data collection process to link the HH interviews and the medical records



# Quality control

- Field manual and supervisory manual will be standardized
- Quality control process will be different for different data administration processes.
- The data collection processes be closely supervised on a regular basis through trained supervisors and the site coordinators.
- Data editor will be assigned to check for missing and inconsistencies in the questionnaires.
- Meticulous documentations of all data collection procedure in each site

# The Analysis Approaches

		Analysis Approaches
1	How different is the distribution of (OOPS) when the quintiles are defined by assets versus total household consumption?	Descriptive and logistic regression(based on the distribution of the OOPS), Kappa, the comparison will be the household, ROC curve analysis
2	Do self-reported coping strategies predict short-medium (2 years) term adverse impacts of health expenditures? (need ff-up for 2 years)	Descriptive and multinomial regression model
3	Do types of coping strategies vary with respect to type of expenditure, disease , employment, quintiles, and other variables	Descriptive and logistic regression(based on the distribution of the OOPS)
4	Are more questions on health expenditures more accurate than fewer questions?	<b>Descriptive statistics, T-test, ANOVA</b>
5	How accurate is 4 week recall for outpatient health expenditures and drugs compared to a one year recall?	<b>Descriptive, T-test, proportion of concordance) , and spearman correlation, Wilcoxon rank test,</b>
6	Is enumerating individual members' health expenditures more accurate than one question for the entire household?	Weighted kappa, Pearson, ICC
7	Which level of disaggregation of household expenditures provides a more accurate measure of total household consumption in health surveys	Sensitivity and specificity analysis will be done/conducted
8	How accurate is 4-week recall for outpatient expenditures and drugs compared to a one year recall?	Sensitivity and specificity analysis will be done/conducted
9	How accurate is self-reported diagnosis, symptomatic, and symptomatic and diagnosis compared with the gold standard?	Sensitivity and specificity analysis and , T-test will be done
10	How accurate is real time recording (the provider report) of health expenditures by smart phones?	Sensitivity and specificity analysis and , T-test will be done



*“Out-of-pocket payments  
to health care providers  
are regressive ....”*

**Thank You So Much**