

Longitudinal Ageing Study in India

1. Introduction of LASI

- i. The Longitudinal Ageing Study in India (LASI) is a National survey of scientific investigation of the health, economic, and social, determinants and consequences of population ageing in India. It is a survey of older adults aged 45+ in all States/Union Territories.
- ii. LASI is developed as per the needs of the Indian elderly population but at the same time it is internationally harmonized enabling not only cross-State analyses within India but cross-Country analyses.
- iii. LASI- Wave-1 was conducted in 2017-18 by the MoH&FW. LASI Wave-2, which is currently underway, serves as a follow-up study of the households and individuals who participated in Wave-1.

2. Nodal Institution:

The International Institute for Population Sciences (IIPS), Mumbai, an autonomous institution under the MoH&FW, Government of India, Mumbai, is the nodal agency for conducting LASI.

3. Scientific Goals of LASI

The main goal of LASI Wave-2 is to collect credible scientific data on burden of disease, mental health, functional health, health care and social and economic wellbeing of older population (aged 45 years and above). LASI is designed to cover following major subject and policy domains of adult and older population namely:-

- i. Demography and Marital status, and Housing and Environment
- ii. Health: Disease Burden and Risk factors (reported and measured)
- iii. Mental and Functional Health: Cognition, Depression, Mobility, Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL)
- iv. Health Care Utilization and Financing
- v. Family and social network
- vi. Economic: Consumption, Income, Employment, Retirement and Pension

4. Schedules

LASI Wave-2 Survey implements have two types of schedules:

- A. Household Schedule
- B. Individual Schedule

A. Household Schedule

The main modules of household schedule include the following: -

- i. **Cover screen:** This module covers information about the members of the household and their basic socio-demographic characteristics.
- ii. **Housing and environment:** This module covers information related to housing and environmental condition of surveyed households including water and sanitation, electricity, indoor pollution at household level and condition of the households, and age- friendly household.
- iii. **Household consumption:** This module covers information related to consumption on food and non-food items and public subsidy at household level.
- iv. **Household assets and debts:** This module covers information related to home ownership, land ownership, agricultural and business assets, financial and non-financial assets and household debts.
- v. **Household income:** This module covers information related to agricultural income, non- agricultural business income, individual earning, remittance and household income from government transfers, tax related questions, and overall economic condition.
- vi. **Health insurance:** This module will collect household level information about awareness of health insurance, type of health insurance, type of coverage and health insurance premiums.
- vii. **COVID-19 related questions**

B. Individual Schedule

The main module of the individual schedule is:

- i. **Demographics-** This module covers basic demographic profile including age, sex, marital status, working status, pension, living condition, etc...
- ii. **Work, retirement and pension-** this section will cover details about ever worked & current work, current main job, job search, last job of current non-workers, social insurance, retirement, pension benefits, etc...
- iii. **Health-**

The health module will cover the following sub-sections:

- a. **Self-Reported Morbidities:** Burden of chronic diseases: hypertension, diabetes, cancer, heart disease, lung disease, stroke, arthritis, angina, psychiatric problems, psychiatric conditions, high cholesterol, falls/injury, and health conditions owing to disasters including both natural and man-made, based on self- reporting of diagnosis by health professional. In other chronic conditions, questions on the conditions such as typhoid, digestive problem(s), skin disease, Parkinson's and Alzheimer's and Urogenital problems/conditions will be asked to the respondent. Burden of endemic diseases such as Anemia, TB, malaria, jaundice, typhoid, liver and kidney diseases, problem of sensory organs such as hearing, eyesight

and oral health. Information on immunization history of the respondents such as pneumococcal, typhoid etc. Illness/health events occurred in the last 3 months of the survey such as angina, sleep related problems, pain-related questions are also asked. Also, this section will collect information about women health regarding removal of uterus, pap smear test and mammography.

- b. **Functional Limitations:** This section covers information on disability, mobility, Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL). In the helper section, the information related to care givers who helps the respondent in the daily activities will be collected.
 - c. **Psychological Health:** this section covers the questions related to cognition, depression, anxiety among the individuals.
 - d. **Health Behaviour and Food:** this section covers health behaviours such as consumption of alcohol, smoking habits, use of e-cigarettes and physical activities by the respondents, furthers questions on the food availability also asked to see the nutrition level among older population.
 - e. **COVID 19:** this section covers questions on facilities for the test of the COVID-19, health conditions developed after recovering from COVID-19 and work affected due to covid-19.
- iv. **Healthcare Utilization:** This section collects information regarding in-patient visit, out-patient visit, health insurance, quality of care, Out of Pocket Expenditure (OOPE), etc.
- v. **Family and Social Network-** This module covers information related to the relationship with children, grandchildren, parents, sibling and friends. This module also collects information on living arrangement, available social support, and involvement in social activities, social security programs meant for the elderly and psychological measures.
- vi. **Social Welfare Schemes-** This module covers information about the awareness, utilizations of different National and State level schemes and programs meant for senior citizens such as NPHCE. Amount received under the schemes and utilization of this money is also collected. Information on problem faced in availing the benefits and grievance system is also collected. Awareness about different types of concessions provided by the Government to older people is also asked.
- vii. **Biomarkers (BM)-** measured information collect in this module such as height, weight, blood pressure, vision test, waist and hip circumference, grip strength, lung function test etc. Additionally, Dried Blood Spots (DBS) is used to provide information on diabetes, CRP and haemoglobin levels.