Longitudinal Aging Study in India (LASI)

About LASI

Data are lacking on the health, social support, and economic security of India's growing elderly population, and concern is mounting about the well-being of this expanding group. By assembling a research team of demographers, economists, medical doctors, sociologists, and public health and policy experts, the Longitudinal Aging Study in India (LASI) aims to supply the data needed to understand the situation of India's elderly population. This evidence base will contribute to cross-national studies of aging and will inform the design of policies that can protect and support the growing elderly community.

The pilot portion of the LASI project is supported by an R21 exploratory grant from the National Institute on Aging (NIA), one of the 27 institutes and centers of the National Institutes of Health (NIH). The results of the pilot study will inform the design of a full-scale, nationally representative LASI, with a sample of roughly 30,000 to be followed longitudinally (with refresher populations added as needed). These data will provide a much-needed foundation for scientific research and policy-making related to aging in India. Due to its harmonized design with parallel international studies, LASI will contribute to scientific insights and policy development in other countries as well. LASI will ultimately be part of a worldwide effort aimed at understanding how different institutions, cultures, and policies can understand and prepare for population aging.

LASI Pilot

The LASI pilot survey targeted 1,600 individuals aged 45 and older and their spouses, and will inform the design and rollout of a full-scale, nationally representative LASI survey. The expectation is that LASI will be a biennial survey and will be representative of Indians aged 45 and older, with no upper age limit. The age of 45 is chosen to (a) harmonize this survey with its sister HRS surveys in Asia; and (b) allow measurement of pre-retirement behavior, as people often begin to change their labor market, health, and consumption behaviors as they age.

1,600 age-qualifying individuals were drawn from a stratified, multistage area probability sampling design. After a series of pre-pilot studies designed to test the instrument and the key ideas behind it, pilot data were collected through face-to-face interviews over three month time periods. Descriptive analyses of the data will be performed and lessons will be drawn to inform the launching of a full-scale LASI survey.

The LASI pilot survey was conducted in four states: Karnataka, Kerala, Punjab, and Rajasthan. To capture regional variation we have included two northern states (Punjab and Rajasthan) and two southern states (Karnataka and Kerala). Karnataka and Rajasthan were included in the Study on Global AGEing and Adult Health (SAGE), which will enable us to compare our findings with the SAGE data. The inclusion of Kerala and Punjab demonstrates

our aim to obtain a broader representation of India, where geographic variations accompanied by socioeconomic and cultural differences call for careful study and deliberation. Punjab is an example of an economically developed state, while Rajasthan is relatively poor, with very low female literacy, high fertility, and persisting gender disparities. Kerala, which is known for its relatively efficient health care system, has undergone rapid social development and is included as a potential harbinger of how other Indian states might evolve.

LASI Components

Survey Instrument

A survey instrument has been designed to collect information that is conceptually comparable to that of the Health and Retirement Study (HRS) and its sister surveys in Asia (i.e., the Chinese Health and Retirement Longitudinal Study, the Japanese Study on Aging and Retirement, and the Korean Longitudinal Study of Aging), but that will also capture characteristics specific to India. Because we have developed LASI to be consistent with parallel international studies, we expect it will contribute to scientific insights and policy development in other countries.

The internationally harmonized survey instrument was developed in English and has been translated into local languages (Hindi, Kannada, Malayalam, and Punjabi). The expected interview duration is about two hours, using face-to-face interviews. The LASI instrument comprises the household survey, which is to be collected only once for each household by interviewing the selected key informant; the individual survey, which the interviewer will collect for each respondent; and the protocol for the collection of biomeasures.

Computer-Assisted Personal Interview (CAPI)

The LASI pilot employed computer-assisted personal interview (CAPI) techniques to record the responses of survey participants. This method requires field teams to be outfitted with laptop computers, pre-loaded with survey questions asked of respondents in a face-to-face interview. Field teams input responses directly into a laptop computer, thereby limiting data entry processes as well as minimizing data recording and entry errors. This portion of the LASI project was funded through a pilot grant from Harvard's Program on the Global Demography of Aging (PGDA).

The use of CAPI allows for crosschecking of data in real-time, thereby minimizing data entry errors and ensuring internal consistency. The RAND Labor and Population Center has spearheaded the development of a comprehensive information system, MMIC™ (Multimode Interviewing Capability), building on work by CentERdata in The Netherlands. MMIC™ was used to program the CAPI survey for LASI, and integrates various traditional modes of collecting interview data, including telephone interviewing, self-administered surveys, and personal interviewing.

Molecular Biomarkers

Another feature of the LASI pilot survey instrument is the collection of biomarkers, which

can be analyzed to provide researchers with quantitative data on health. The National Research Council recommends that biomarkers be incorporated in a social survey to (a) capture health data from a portion of the population that otherwise would not have this type of data recorded; (b) investigate molecular determinants of common health outcomes; and (c) study interactions between biomarkers and other social conditions that may subsequently lead to declines in health outcomes. The inclusion of biomarkers and other health assessments is particularly
important for less-developed countries such as India, where access to health care tends to be limited. As a result, undiagnosed diseases are likely more common than in developed countries.

The protocol for biomarkers in the LASI pilot consisted of the collection of molecular biomarkers, anthropometry, and functional assessment. The lead field organization of our team, IIPS, successfully completed the first wave of SAGE, which also collects biomarkers.

The LASI research team has joined with DBS experts in the United States to craft a proposal to for analyzing the DBS collected during LASI. In particular, the LASI team proposes to analyze the DBS for the presence of apolipoproteins B-1 and A, C-reactive protein (CRP), Epstein-Barr virus (EBV), and hemoglobin (Hb). The DBS collected during the planned full-scale LASI project will also be analyzed by a research team at NARI.

For details visit

https://lasi-india.org/