

FOREWORD

20 years of the Mexican Health and Aging Study

The Mexican Health and Aging Study (MHAS) is a longitudinal study using a national sample of approximately 15 000 community-dwelling adults aged 50 years old and older in Mexico. Spanning over 20 years (2001-2021), six waves of data collection establish the MHAS as the leading data platform for the study of aging in Latin America. The MHAS has a conceptual framework based on a life course approach and uses a broad socioeconomic perspective.

Since its inception, scientific rigor and reproducibility have been ensured by the selection of a nationally representative sample of those aged 50 and older distributed in all 32 states of the country, using a multi-stage probabilistic sample representing urban and rural areas. States with a high proportion of migration to the U.S. are over-sampled. Selected respondents and their spouse or partner (regardless of age) are interviewed. Direct interviews are sought with each subject of study, but proxy interviews are allowed if persons cannot complete their interview for reasons of health, cognition, or temporary absence. In case of death of a panel subject, a next-of-kin interview is used to collect details of the place, date, and circumstances of death, and details about the last year of life. MHAS overall response rate is above 84% (table I). MHAS allows for the longitudinal analysis of mortality with more than 7 000 deaths throughout the study as shown in table I.

Several ancillary studies have been completed to collect anthropometric measures, venous blood and saliva for genetic markers and sequencing, and hair samples for heavy metal exposure. A key ancillary study of the MHAS is the Mexican Cognitive Aging Ancillary Study (Mex-Cog), part of the Harmonized Cognitive Aging Protocol (HCAP), conducted in several countries in close coordination with the U.S. Health and Retirement Study. Mex-Cog uses harmonized instruments and protocols

to study Alzheimer's disease and related dementias (ADRD). Mex-Cog waves 1 and 2 were completed in 2016 and 2021, respectively.

All data and documentation are freely available to the scientific community through a bilingual website www.mhasweb.org (www.enasem.org). More than 377 peer-reviewed articles have used MHAS data, with a growing trend over the last five years of work related to cognitive aging and cross-national research. This includes 263 peer-reviewed papers, 51 book chapters, and 63 thesis and dissertations. It is worth noting that 20% of the total peer-reviewed articles include cross-national comparisons. MHAS is funded by the U.S. National Institute on Aging (NIA) of the National Institutes of Health (NIH) in the United States and the *Instituto Nacional de Estadística y Geografía* (INEGI) in Mexico. Over the life of the study, the MHAS has collaborated with several institutions in both countries, most notably in Mexico

Table I
INTERVIEWS AND RESPONSE RATES, WAVES 1-6,
MEXICAN HEALTH AND AGING STUDY (MHAS)

	2001	2003	2012	2015	2018	2021
Direct interviews	14 154	12 526	14 448	13 850	15 786	14 789
Proxy interviews	1 032	1 178	1 275	929	1 328	1 268
Cumulative deaths	0	546	3 288	4 497	5 632	7 431*
Overall response rates† (%)	91.80	93.30	87.90	88.90	84.70	93.20

* Includes next-of-kin interviews from the MHAS 2021 and the Mexican Cognitive Aging Ancillary Study 2021

† Response Rates include direct, proxy, and next-kin-interviews, out of the target sample

the *Instituto Nacional de Geriátría* (Inger), the *Instituto Nacional de Salud Pública* (INSP), the *Instituto Nacional de Medicina Genómica* (Inmegen), and the *Instituto Nacional de Ecología y Cambio Climático* (INECC). The study has had collaborators also from several universities in the United States.

This special volume compiles 12 papers presented at the 7th Annual Seminar /Workshop MHAS-ENASEM the 17th and 18th of October 2022. The virtual workshop was sponsored by the Inger, the Sealy Center on Aging at the University of Texas Medical Branch (UTMB), and the MHAS.

The goal of the annual workshop is to build a strong community of MHAS users and promote high-quality research about the aging process in Mexico. In the workshop, established and new users present their work, get feedback from experts both from Mexico and around the world, and network with other MHAS users. The workshop also helps establish a pipeline of researchers by including special sessions for student presentations. The 7th annual workshop celebrated the 20 anniversary of MHAS and included researchers from Mexico, the U.S., Japan, Korea, Brazil, and Holland. The workshop also plays an important role in improving the quality of the research, not only through sharing state-of-the-art methods but also by allowing researchers to become familiar with Mexico's institutional arrangements and environment.

The 2022 workshop included sessions presenting the most up-to-date research using MHAS on the following topics: mental health, cognition, depression, multimorbidity, and social and economic determinants of health. The 7th annual workshop also included two sessions for masters, doctoral, and postdoctoral students to present their research. Finally, the workshop had a session about latest data products of MHAS including cognition using Mex-Cog and the impact of exposure to heavy metals using participants' hair samples.

The quality and relevance of the studies presented at this workshop made us realize that the dissemination of this information could contribute to the design of public policies on issues related to aging in Mexico. This motivated the team of guest editors to invite papers for a special volume to integrate the best projects presented at this workshop. In response to the call for papers, proposals were received and initially reviewed by this editorial team, which supervised and followed the submission process leading to the selected articles. Each article was

then sent for peer review and subsequently approved by the Editorial Board of *Salud Pública de México*.

This special volume includes articles that examine topics related to mental health like the association of depressive symptoms with different dimensions of social inequity, sociodemographic and health characteristics, migration history, and chronic conditions. Other papers include the cognitive performance profile of older adults with dementia, mild cognitive impairment, and normal cognition using the Mex-Cog cognitive battery, the effect of education on cognitive-healthy life expectancy, and the association between motoric cognitive risk syndrome and falls among older adults. Additional papers examine how disruptions in social security coverage impact mortality, and the estimation of probabilities of access to formal and informal social protection among adults who were U.S migrants during their life course. One article investigates the relationship between socioeconomic and health factors and compares this relationship between formal and informal sector workers. Another paper explores the impact of retirement on health-related conditions and biopsychosocial variables. Other papers study the association of main occupation throughout life with mortality in a context of rural and urban changes, and how living arrangements and socioeconomic position impact the latter part of life. Other articles are related to nutritional issues and highlight the importance of the association between self-reported insomnia and obesity.

We believe that these papers contribute new knowledge through the study of different topics on health and aging using the MHAS data and that the papers in the volume will encourage more researchers from various disciplines, with different perspectives and lines of research, to join forces and continue to innovate, producing evidence that takes advantage of the analytical power offered by this longitudinal data.

Declaration of conflict of interests. The authors declare that they have no conflict of interests.

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