Mexican Health and Aging Study (MHAS) - Update
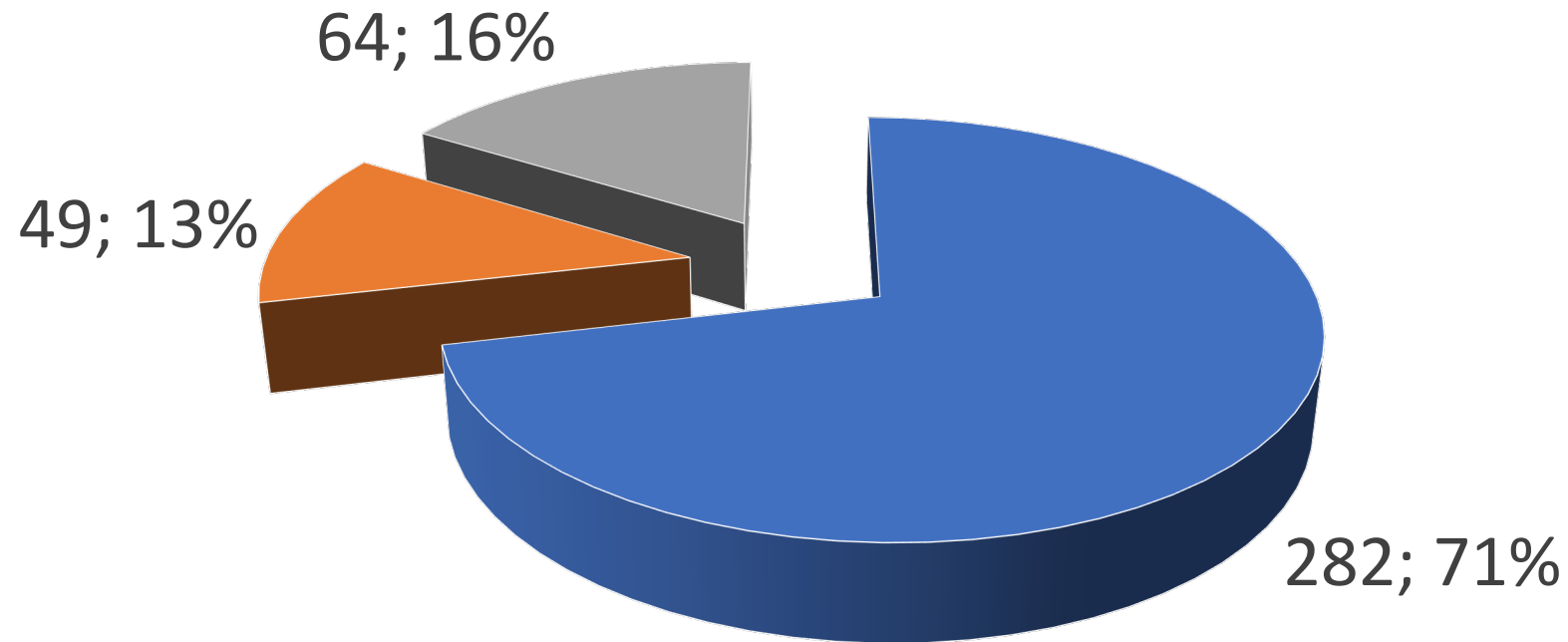
2023 Meeting of the HRS Around the World Studies

Dublin, Ireland, August 22-23, 2023

The MHAS celebrated 20 years of follow-up

- Completed 6 waves from 2001 to 2021
- Public release of wave 6 (2021) in July 2023
- Emphasis on facilitating use of the data
  - 7th annual meeting of MHAS users in 2022
  - 5th, 6th and 7th have been Virtual.
  - Special Volume with MHAS papers to be published in Fall 2023
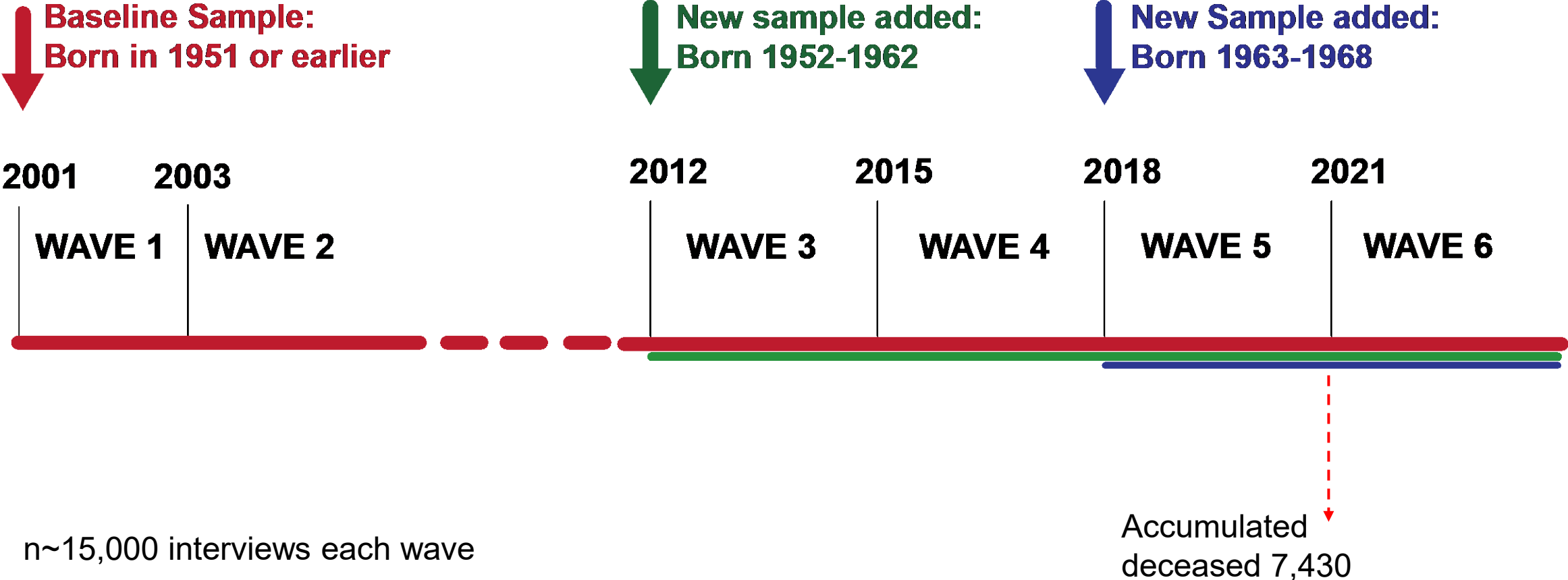

Mexican Health & Aging Study

Publications using MHAS data until July 2023 (total 385)

64; 16%

49; 13%

282; 71%

■ Journal Articles ■ Book Chapters ■ Thesis/Dissertations

Mexican Health & Aging Study

Timeline of Longitudinal Waves

Baseline Sample:
Born in 1951 or earlier

New sample added:
Born 1952-1962

New Sample added:
Born 1963-1968

2001   2003

WAVE 1 | WAVE 2

2012   2015   2018   2021

WAVE 3 | WAVE 4 | WAVE 5 | WAVE 6

n~15,000 interviews each wave

Accumulated
deceased 7,430

Mexican Health &
Aging Study

Participants in MHAS by number of interviews 2001 to 2021

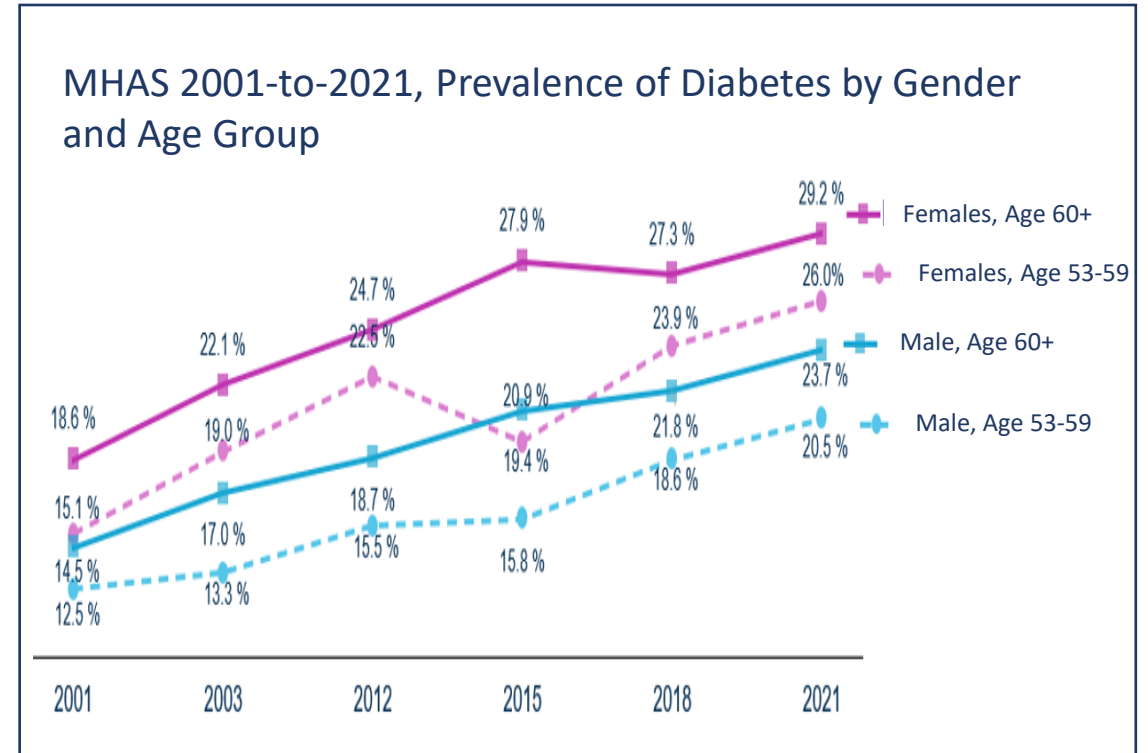| Number of Interviews (direct or proxy)*	
6	5,215
5	2,177
4	5,388
3	2,716
2	8,707
1	2,956

*Includes the interviews that were completed while the subjects were alive. Excludes next of kin interviews.
**Includes next of kin interviews according to the number of interviews completed prior to death.
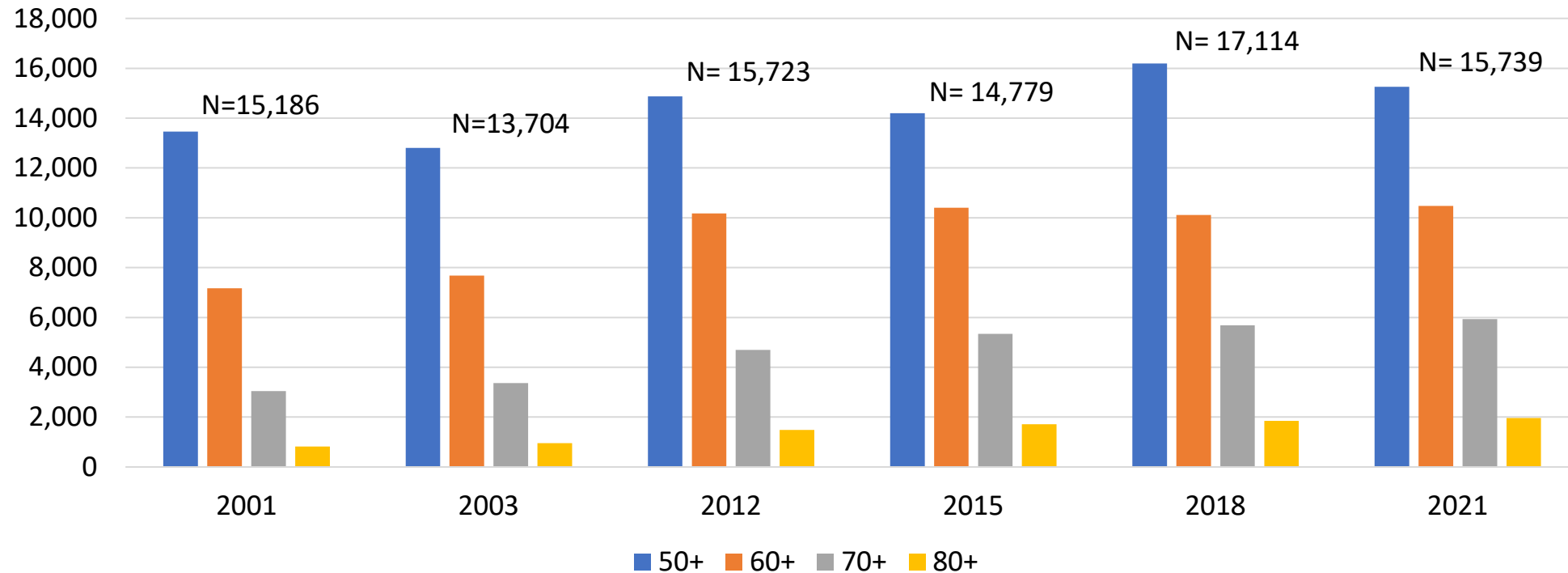
Rising Trend of Obesity through the Panel Years

MHAS 2001-to-2021, Prevalence of Obesity by Gender

Female
Male

25.0 % 25.9 % 26.1 % 28.8 % 29.8 % 30.1 %
18.1 % 17.4 % 21.8 % 19.6 % 22.1 % 23.3 %

2001 2003 2012 2015 2018 2021
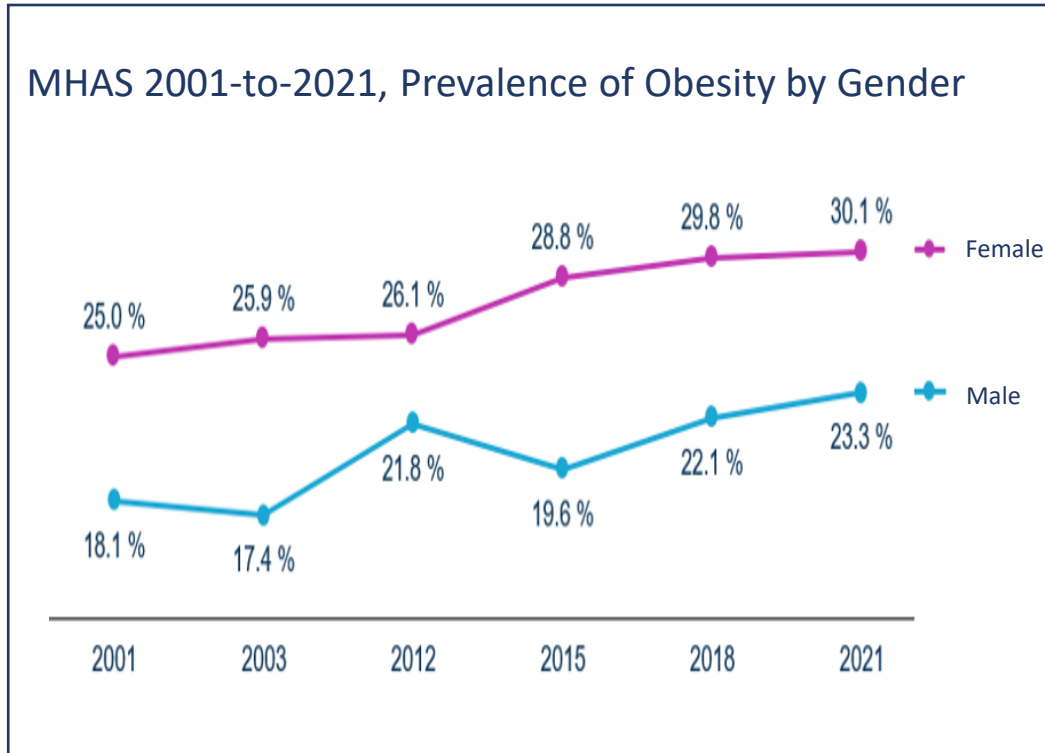
Rising Trends of Diabetes for Men & Women, Young & Old Older Adults

MHAS 2001-to-2021, Prevalence of Diabetes by Gender and Age Group

Females, Age 60+
Females, Age 53-59
Male, Age 60+
Male, Age 53-59

18.6 % 22.1 % 24.7 % 27.9 % 27.3 % 29.2 %
15.1 % 19.0 % 22.5 % 20.9 % 23.9 % 26.0 %
14.5 % 17.0 % 18.7 % 19.4 % 21.8 % 23.7 %
12.5 % 13.3 % 15.5 % 15.8 % 18.6 % 20.5 %

2001 2003 2012 2015 2018 2021

Note: Age 53 and older. Weighted statistics.
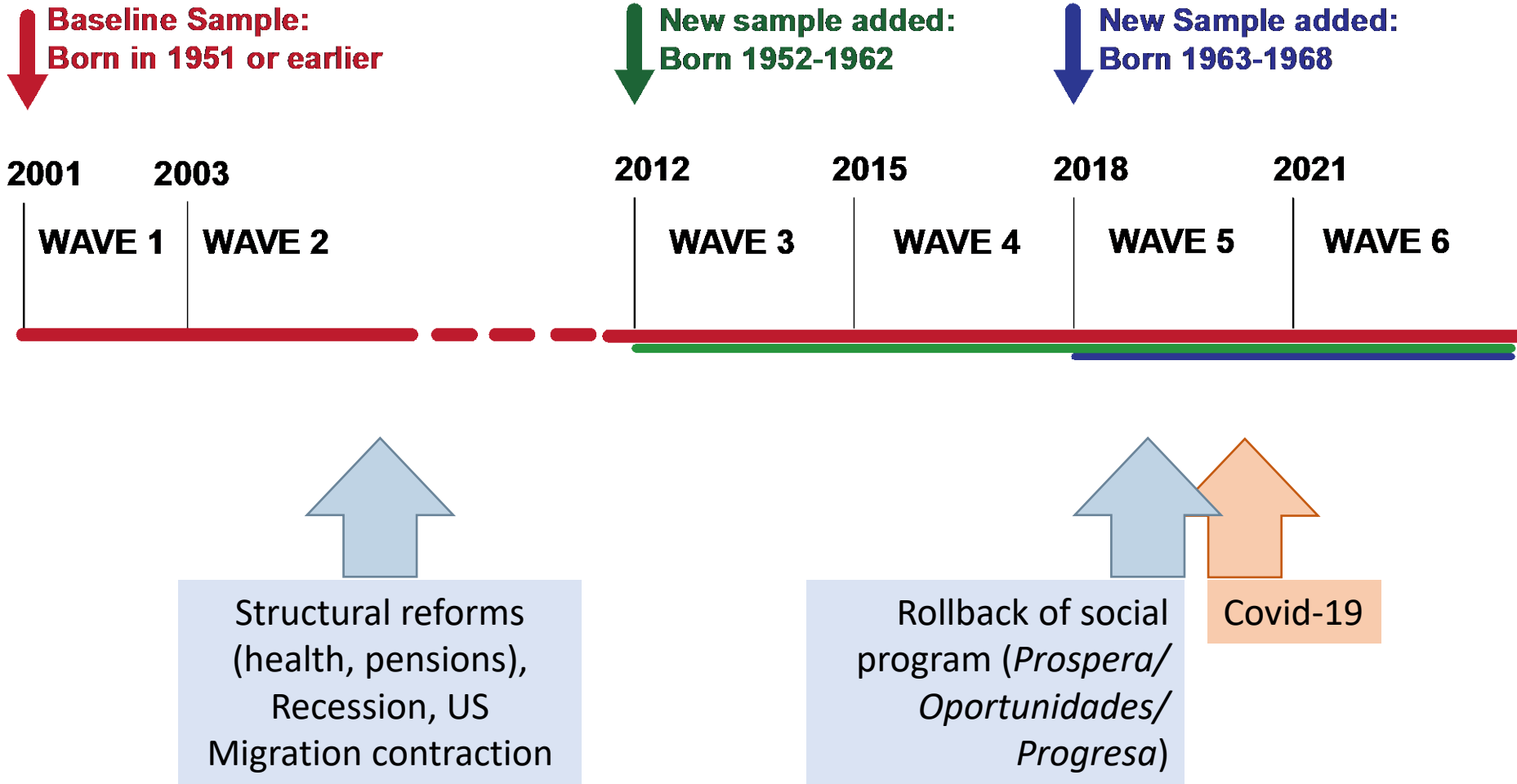
Mexican Health & Aging Study
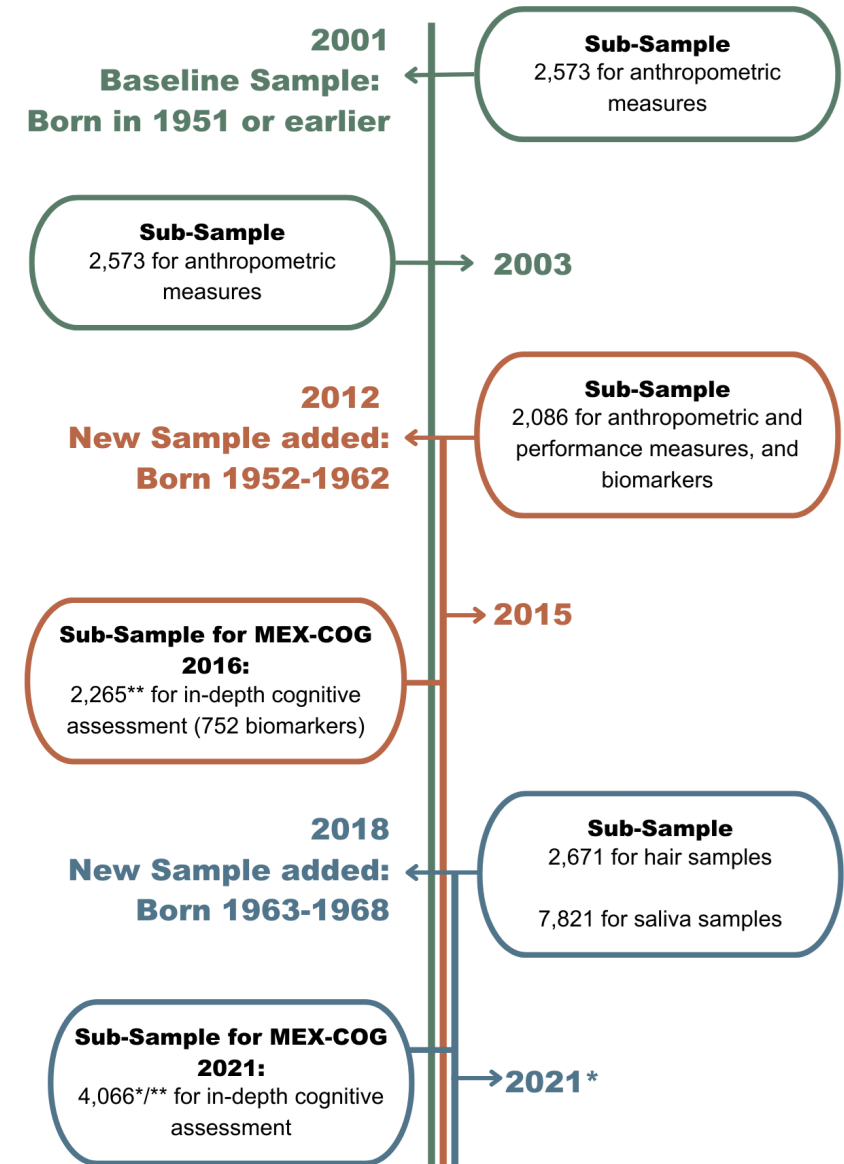
Complete Interviews* by Wave and Age

* Direct and proxy interviews

NOTE: The sample cohorts are older with time. In 2001, 53% of the sample was 60+. In 2021, 69% of the sample was 60+.

Mexican Health & Aging Study

Structural Reforms and Macro Shocks through the MHAS Panel

Biomarkers and Cognitive Aging in Sub-Samples

- Anthropometrics and performance measures

- Venous Blood & Saliva Samples
  - ➤ DNA (GWAS ~7,200, APOE ~8,600, Ancestry ~7,200, Sequencing ~6,000)
  - ➤ NIAGADS repository or study website

- Hair Samples
  - ➤ Heavy metals exposure ~2,600

- HCAP in Mexico (Mex-Cog)
  - ➤ Wave **1** (2016) and Wave **2** (2021) public data

2001
Baseline Sample:
Born in 1951 or earlier

Sub-Sample
2,573 for anthropometric measures

Sub-Sample
2,573 for anthropometric measures

2003

2012
New Sample added:
Born 1952-1962

Sub-Sample
2,086 for anthropometric and performance measures, and biomarkers

2015

Sub-Sample for MEX-COG 2016:
2,265** for in-depth cognitive assessment (752 biomarkers)

2018
New Sample added:
Born 1963-1968

Sub-Sample
2,671 for hair samples

7,821 for saliva samples

Sub-Sample for MEX-COG 2021:
4,066*/** for in-depth cognitive assessment

2021*

*Preliminary
**Sample size varies across instruments

Data Linkages at Community Level

- **Historical Series**

- Census data; Public health infrastructure

- Birth and death records;COVID-19 cases, deaths, and hospitalizations

- Administrative records of main social insurance programs (Seguro Popular, *PROGRESA*, 70+)

- Air pollution (PM10, PM2.5, Ozone, NO2)

- Extreme temperatures, drought, and natural disasters

Mexican Health &
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Plans for MHAS 2024 and 2027

- Wave 7 planned for 2024, Wave 8 in 2027
- Add refresher sample in 2024 with a rural over-sample
- Wave 3 of Mex-Cog in 2025
- New content proposed:
    - Perceived discrimination
    - Use of multiple languages (indigenous, English)
    - Use of mobile device technology for health care
    - Long COVID
- Remote enclave in Mexico (INEGI)

Mexican Health & Aging Study

Thank you *all* for your support over the last 20 years!

Acknowledgments:

www.MHASweb.org (English) or www.ENASEM.org (Spanish)

Mexican Health & Aging Study