The MHAS: A Longitudinal Study of Health and Aging in Mexico

(Similar to HRS in the U.S.)
MHAS Timeline

Selected sample: Born in 1951 or earlier

WAVE 1
2001
15,402 Individuals
2,573 sub-sample for anthropometric measures

WAVE 2
2003
14,386 Individuals
2,541 sub-sample for anthropometric measures

WAVE 3
2012
18,465 Individuals
2,089 sub-sample for objective markers

WAVE 4
2015*

546 Deaths

Next-of-Kin Interviews

New sample added: Born 1952-1962: n=5,896

18,465 Individuals
2,674 Deaths
(Cumulative=3,288)

676 Deaths
(Cumulative=3,964)

Note: * Expected
Sub-samples

32 States

Sub-sample MHAS 2001 and 2003

2001 Baseline

Random sub-sample of 20% for anthropometric measures

Sub-sample 2001
N = 2,573

Sub-sample 2003
N = 2,541

Follow up 2003

Sub-sample MHAS 2012

4 States*
Full Sample
N = 2,089

- Full sample for Anthropometric measures, Performance tests, and Biomarkers (Blood)
- Eligible if Direct Interview in 2012

2012

* One highly rural, one highly urban, one with high US migration, one with high diabetes rate
Biomarkers – New in 2012

• Sub-sample (n=2,089) for anthropometric measures, biomarkers, and performance measures

✔ Biomarkers

<table>
<thead>
<tr>
<th>Intravenous Blood</th>
<th>Finger Prick</th>
<th>Considered But Not Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>• CRP (high sensitivity)</td>
<td>• Hb (using Hemocue)</td>
<td>• Complete Blood Count</td>
</tr>
<tr>
<td>• Total Cholesterol and HDLC</td>
<td>• HbA1c (using Ac1 Now)</td>
<td>• Creatinine</td>
</tr>
<tr>
<td>• TSH (Thyroid)</td>
<td></td>
<td>• Albumin</td>
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<tr>
<td>• Vitamin D</td>
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<td>• Vitamin B12</td>
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<td></td>
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<td>• Triglicerides</td>
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</tbody>
</table>

✔ Performance measures: walking speed, grip strength, and balance
Biomarkers Response Rates

• Only those with direct completed interview were eligible for health visit: n=2,315

• Response rate: 90.2% agreed to at least one anthropometric performance or biomarker measure

• For example:
  ◦ 100% completed blood pressure
  ◦ 88.9% completed weight
  ◦ 89.3% speed walk
  ◦ 89.9% hand grip
  ◦ 86% provided blood sample
MHAS Collaborators

- University of Texas Medical Branch
- University of Wisconsin
- INEGI, México
- Instituto de Nacional de Geriatría, México
- Instituto Nacional de Salud Pública, México

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Update on Biomarkers
MHAS 2012

- Lab tests will be completed for CRP, Cholesterol, Thyroid, Vitamin D in Spring-Summer 2014.

- In addition, ‘validity’ of lab will be assessed by comparing to a small sample from UCLA lab (n=100)