Activities of Daily Living and Active Life Expectancy among Older Cambodians:

Preliminary Findings from the 2004 Survey of the Elderly in Cambodia

Zachary Zimmer

I would like to acknowledge the assistance of other members of the research team: John Knodel, Kiry Sovan Kim and Sina Puch.

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Background on Cambodia

Older people in Cambodia are survivors of a violent and unstable history

More peaceful conditions have prevailed over the last decade, but living circumstances are still difficult

Previous reports on the health of older adults in Cambodia are rare

Recent renewal of academic institutions allows for data collection
Study Aims

1. Examine the disability status and ALE for older Cambodians

2. Compare with surveys conducted in other countries in the region

3. Examine some common correlates of disability
2004 Survey of the Elderly in Cambodia

1. N = 1,273

2. Survey examines:
   - Living conditions
   - Health
   - Effects of Cambodia’s turbulent history on aging
   - Impact of AIDS on the elderly

3. Multi-stage systematic sampling

4. Covers six provinces containing over half of Cambodia’s population
   - Battambang
   - Kampong Cham
   - Kandal
   - Phnom Penh
   - Prey Veng
   - Takeo
Map of Cambodia

Showing districts sampled

- approximate area with 100 interviews
Measures

Four ADL items

1. Eating
2. Bathing
3. Dressing
4. Getting up from lying down

A little difficulty – not severe
A lot of difficulty – severe
Unable to do the task - severe
### Percent Reporting Specific ADL Limitations

<table>
<thead>
<tr>
<th></th>
<th>Getting up</th>
<th>Eating</th>
<th>Bathing</th>
<th>Dressing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Any difficulty</strong></td>
<td>18.8</td>
<td>8.7</td>
<td>8.4</td>
<td>6.2</td>
</tr>
<tr>
<td><strong>Severe difficulty</strong></td>
<td>7.3</td>
<td>3.6</td>
<td>3.1</td>
<td>2.4</td>
</tr>
</tbody>
</table>
Percent Reporting Bathing Disability by Age and Sex

WOMEN

MEN

Population Council
Percent Reporting Any Disability by Age and Sex

- **WOMEN**
- **MEN**

Age groups: 60-64, 65-69, 70-74, 75-79, 80+.

Disability percent range: 0-60.

Population Council
Percent Reporting Any and Any Severe Disability by Age and Sex

- **WOMEN – Any**
- **MEN – Any**
- **WOMEN – Severe**
- **MEN - Severe**

Age categories: 60 - 64, 65 - 69, 70 - 74, 75 - 79, 80 +
<table>
<thead>
<tr>
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<th>Getting up</th>
<th>Eating</th>
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<th>Dressing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>18.8</td>
<td>8.7</td>
<td>8.4</td>
<td>6.2</td>
</tr>
<tr>
<td>Burma</td>
<td>7.8*</td>
<td>5.4*</td>
<td>6.4*</td>
<td>5.0*</td>
</tr>
<tr>
<td>Indonesia</td>
<td>3.8*</td>
<td>3.1*</td>
<td>3.0*</td>
<td>2.2*</td>
</tr>
<tr>
<td>Philippines</td>
<td>na</td>
<td>4.5*</td>
<td>7.2</td>
<td>5.9</td>
</tr>
<tr>
<td>Thailand</td>
<td>na</td>
<td>3.7*</td>
<td>6.2*</td>
<td>3.2*</td>
</tr>
</tbody>
</table>

* Significantly different from Cambodia
Calculating Active Life Expectancy

Heath states
1) Disability-free
2) Non-severe disability
3) Severe disability

Method = Sullivan

Prevalence rates smoothed using maximum likelihood estimation
### ALE estimates by age and sex

<table>
<thead>
<tr>
<th></th>
<th>Total life expectancy</th>
<th>Disability-free life expectancy</th>
<th>Severe disability-free life expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Men</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60-64</td>
<td>15.02</td>
<td>11.87 (12.45-11.29)</td>
<td>13.77 (14.18-13.37)</td>
</tr>
<tr>
<td>70-74</td>
<td>9.30</td>
<td>6.53 (7.21-5.86)</td>
<td>8.15 (8.64-7.66)</td>
</tr>
<tr>
<td>75-79</td>
<td>7.06</td>
<td>4.54 (5.30-3.78)</td>
<td>5.97 (6.54-5.39)</td>
</tr>
<tr>
<td>80+</td>
<td>5.31</td>
<td>3.03 (3.88-2.17)</td>
<td>4.26 (4.95-3.57)</td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70-74</td>
<td>10.62</td>
<td>6.50 (7.07-5.94)</td>
<td>8.75 (9.21-8.30)</td>
</tr>
<tr>
<td>75-79</td>
<td>8.09</td>
<td>4.45 (5.06-3.83)</td>
<td>6.36 (6.88-5.84)</td>
</tr>
</tbody>
</table>
| 80+   | 6.08                  | 2.91 (3.66-2.16)                | 4.48 (Population Council)
Life Expectancy Segregated into Various States of Disability by Age and Sex

- WITH SEVERE DISABILITY
- WITH NON-SEVERE DISABILITY
- DISABILITY-FREE

[Graph showing life expectancy by age and sex for various states of disability]
Percent of Life Expected in Various States of Disability by Age and Sex

- 100% of Disability by Age and Sex
- 80%
- 60% Non-Severity Disability
- 40%
- 20%
- 0%

Men and Women by Age Groups:
- Men 60-64
- Women 60-64
- Men 65-69
- Women 65-69
- Men 70-74
- Women 70-74
- Men 75-79
- Women 75-79
- Men 80+
- Women 80+

Disability States:
- Severe Disability
- Non-Severe Disability
- Disability Free

Population Council
## Significant Correlates Disability

<table>
<thead>
<tr>
<th>Factor</th>
<th>Any</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Female (vs. Male)</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Not married (vs. Married)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural (vs. Urban)</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Literacy (vs. Literate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Semi-literate</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>- Illiterate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income satisfaction (vs. Satisfied)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Somewhat satisfied</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>- Not satisfied</td>
<td></td>
<td>+</td>
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Conclusion

Examination of disability is suitable place to begin a health dialogue about a population of which little is known.

In many ways, results shown conform to expectations:

* women and older people more likely to be disabled

* rural residence and SES relate to disability in expected ways

* women live longer than men, but live more years in disabled states
Comparisons With Other Samples from Southeast Asia

Cambodian prevalence rates are much higher than in Burma, Indonesia and Thailand, and moderately higher than Philippines.

Comparisons of ALE with Lamb (1999) and cited by Saito, Qiao and Jitapunkul (2003) suggest Cambodians live greater percent of remaining life in disabled states than counterparts in other SE Asian countries.
Is it reasonable that older Cambodians are less healthy?

1. No other country has experienced social disruption to the same degree

2. Cambodia is more underdeveloped than other countries in the region

3. Cambodian elders contend with real environmental barriers
Percent Reporting Eating Disability by Age and Sex

- **WOMEN – Any**
  - 60-64: 0%
  - 65-69: 5%
  - 70-74: 10%
  - 75-79: 15%
  - 80+: 20%

- **MEN – Any**
  - 60-64: 5%
  - 65-69: 10%
  - 70-74: 15%
  - 75-79: 20%
  - 80+: 25%

- **WOMEN – Severe**
  - 60-64: 0%
  - 65-69: 2.5%
  - 70-74: 5%
  - 75-79: 7.5%
  - 80+: 10%

- **MEN – Severe**
  - 60-64: 5%
  - 65-69: 7.5%
  - 70-74: 10%
  - 75-79: 12.5%
  - 80+: 15%
Percent Reporting Dressing Disability by Age and Sex

WOMEN – Any

MEN – Any

WOMEN – Severe

MEN - Severe

60 - 64 65 - 69 70 - 74 75 - 79 80 +
## Significant Logistic Regression Coefficients for Specific ADL Disabilities

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Correlates of Disability

1. Age: Measured continuously
2. Sex: WOMEN vs. MEN
3. Marital Status: NOT MARRIED vs. MARRIED
4. Residence: RURAL vs. URBAN
5. Literacy: SOMEWHAT LITERATE, and ILLITERATE vs. FULLY LITERATE
6. Income adequacy:
   SOMEWHAT ADEQUATE and NOT ADEQUATE vs. ADEQUATE