Bordering on Instability: Public Health on Burma’s Frontiers and Beyond

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Lymphatic filariasis (elephantiasis)

- 40 M disfigured, disabled; 120 M worldwide infected
- Economic impact: ~20% less productive
- Most infected have NO symptoms
Prevention of filariasis

• **Mass treatment (MDA):** reduces transmission AND morbidity
  - Longterm: decrease infected people → inability to sustain transmission in community
  - WHO: once per year treatments 5 yrs or until treatment interrupted. (DEC + albendazole)
    • Goal: treat >80% of population at risk
Thailand & Filariasis

Lymphatic Filariasis Prevalence Rate in Thailand, 1992-1999

<table>
<thead>
<tr>
<th>Year</th>
<th>Prevalence Rate, per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>11.16</td>
</tr>
<tr>
<td>1993</td>
<td>6.54</td>
</tr>
<tr>
<td>1994</td>
<td>5.78</td>
</tr>
<tr>
<td>1995</td>
<td>5.54</td>
</tr>
<tr>
<td>1996</td>
<td>3.27</td>
</tr>
<tr>
<td>1997</td>
<td>2.28</td>
</tr>
<tr>
<td>1998</td>
<td>1.45</td>
</tr>
<tr>
<td>1999</td>
<td>0.99</td>
</tr>
<tr>
<td>2000</td>
<td>0.71</td>
</tr>
<tr>
<td>2001</td>
<td>0.58</td>
</tr>
<tr>
<td>2002</td>
<td>0.53</td>
</tr>
</tbody>
</table>

- Endemicity map, LF in Thailand:
  - Tak
  - Mae Hong Son
  - Kanchanaburi

- Almost all cases migrants from Burma
Epidemiology: filariasis in Burma, 2006

Filaria Endemic Areas and Areas Under Mass Drug Administration, 2006

- LF Endemic (45 Districts; 40m)
- LF Nonendemic (19 Districts; 12.9m)
- Ongoing survey area (1 District; 1.9m)

Budgets:
- Thailand: ~$500,000 (2002)
Thailand, migration, filariasis

• 2004: Two patients with symptoms found in Chiang Mai city in 2004, first in decades
• Both in Shan migrant workers
Two patients from Mongnai...

Filariasis Endemic Areas and Areas Under Mass Drug Administration, 2006

- **LF Endemic** (45 Districts; 40m)
- **LF Nonendemic** (19 Districts; 12.9m)
- **Ongoing survey area** (1 District; 1.9m)

**MDA areas**: 14 Districts; 11m Pop.
1. Burma’s Health is in Crisis

<table>
<thead>
<tr>
<th></th>
<th>Burma</th>
<th>Thailand</th>
<th>Indonesia</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMR</td>
<td>75</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>U5MR</td>
<td>105</td>
<td>21</td>
<td>36</td>
</tr>
<tr>
<td>% routine vaccines financed by government</td>
<td>0 (90% provided for by UNICEF)</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: UNICEF. All figures are for 2005.
<table>
<thead>
<tr>
<th></th>
<th>Burma</th>
<th>Thailand</th>
<th>Indonesia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gov’t expenditure on health per capita</td>
<td>$0.40</td>
<td>$61</td>
<td>$12</td>
</tr>
<tr>
<td>Private expenditure on health, %THE</td>
<td>89.4</td>
<td>36.1</td>
<td>65.3</td>
</tr>
</tbody>
</table>


21. BriefnamstiletestsattheievienOvisise

Displaced Villages in Eastern Burma, 1996-2006

- Essentially no government support for health
  - aid blocked, limited; cross-border
- Conflict areas: health providers also targeted
  - Ceasefire: central gov’t not in control
  - Porous: “to everything except public health”
# Basic Health Indicators, 2004


<table>
<thead>
<tr>
<th></th>
<th>IMR (per 1000 live births)</th>
<th>U5MR (per 1000 live births)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Burma conflict zones</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burma national rates (UNICEF)</td>
<td>76</td>
<td>106</td>
</tr>
<tr>
<td>Thailand (UNICEF)</td>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>Indonesia (2005; UNICEF)</td>
<td>28</td>
<td>36</td>
</tr>
</tbody>
</table>
## Causes of Death

<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>Children under 5</th>
<th>Total Surveyed Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Deaths</td>
<td>Percent of total</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>16</td>
<td>22%</td>
</tr>
<tr>
<td>Malaria</td>
<td>34</td>
<td>47%</td>
</tr>
<tr>
<td>ARI</td>
<td>8</td>
<td>11%</td>
</tr>
<tr>
<td>Landmine</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Gunshot</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Pregnancy</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>15</td>
<td>20%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>73</td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
• Especially along frontiers: esp. Chin, Karenni, Kachin States
• BPHWT: #1 cause of death, 12% IDPs with Pf
• >70% of population live in moderate-high risk areas

92% reported malaria cases in Thailand occur in Burmese migrants.

HIV in Burma

• “one of the most serious HIV epidemics in south-east Asia” (UNAIDS, 2007)

• 1.3% adults (0.7-2.0%) with HIV in Burma
  – Concentrated or generalized epidemic?
  – 360,000 [200-570,000]

• Gov’t expenditure on HIV: $137,000 in 2005 (< $0.005 per capita)
  – Thailand: $1.43, Cambodia: $0.07 (UNAIDS, April 2007)
**HIV Sentinel surveillance, March-April 2003**

<table>
<thead>
<tr>
<th></th>
<th>% infected: median</th>
<th>% infected: minimum</th>
<th>% infected: maximum</th>
</tr>
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<tbody>
<tr>
<td><strong>High Risk:</strong></td>
<td>48.10</td>
<td>23.00</td>
<td>77.78</td>
</tr>
<tr>
<td><strong>IDU</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Low Risk:</strong></td>
<td>1.00</td>
<td>0.00</td>
<td>7.50</td>
</tr>
<tr>
<td><strong>ANC</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
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3. Burma’s health burden is not borne by Burmese alone

2. The frontiers are even worse

• Thailand: 1-2 million (?) migrants from Burma (mostly undocumented)
  – migrant factory workers: 15% seen condom, 1.4% ever used
  – Burmese CSWs
    • 10% in Mae Sot ~HIV+
    • 1/4 to 1/3 in Ranong HIV+
  – Shan CSW data; less prevention knowledge
  – 1999: Shan construction workers: 4.9% HIV+, double N Thais
ANC HIV Prevalence Rates, Tak, Thailand

Yunnan

- Entry point of drugs into China
- Epicenter of 1989 IDU outbreak: Ruili, Dehong P.
- Now throughout Yunnan; most severely affected province: 30% HIV in China
  - Driven by IDU: >20% IDUs in Yunnan HIV+
  - Ruili: >70% IDUs HIV+ (Yunnan Institute for Drug Abuse)
- Generalized (>1% ANC)

Distribution of reported cases of HIV, 2004

“Golden Triangle”

Yunnan & Upper Burma HIV outbreaks linked, “are the ‘melting pots’”
FIG. 1. Map showing the geographic location of Darjeeling district in West Bengal, India, Manipur, a northeastern state in India, and Nepal, a neighboring country of India.
- Drug figures debated; Burma remains Southeast Asia’s largest source of drugs
- Heroin: exported especially to China
- Amphetamines
- Problem spreading beyond “traditional” areas
Tuberculosis

- Burma High Burden
- #1 dx, Burmese migrants (Thailand)
  - Overwhelming district programs
- MDR: little data; ~5% on border vs general Thai rate of 0.9%
- 2006: 2 Burmese migrants with XDR TB
  - No care in Burma
  - Previous meds, tx failures
  - Both default, lost
## Vaccine-preventable diseases

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<th>% routine vaccines financed by gov’t</th>
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Re-emergence in Burma, coupled with ongoing migration identified as high risk for polio resurgence in Thailand “Disease reporting in Burma was unreliable”
- *The Nation*, December 22, 2007, quoting WHO communicable disease control official

Source: WHO, Regional Office for South-East Asia, 2007
4. Burma's health failures present a present, future threat.

Guidelines for
UN Agencies, International Organizations and
NGO / INGOs
on Cooperation Programme in Myanmar
Tighter regulations governing INGOs, January 2008, Naypyidaw

- “No permission from Ka-Ka-Kyi [Ministry of Defense], no travel.”
  - No travel permits: short-term consultants, trainers from abroad
- All expat travel accompanied by liaison officers (LO), including same flight, hotel
  - Costs to be borne by aid agency
- Minimize data collection, assessment; “should be confined to ‘Health Issues’”
- Focus on “pure health activities” to get MoUs from government
  - “If a person is liked, then the rules are reduced… so try to be liked first!”
Naypyidaw Relocation: $122-244 million/year (IMF)

"How much it cost is not that important… What is important is not to have a budget deficit."

BG Kyaw Hsan (April 2007)

Total Global Fund grants for AIDS, TB, and Malaria (Burma): $11,929,652
Pf Prevalence by Term

Source: Karen Dept of Health and Welfare, Malaria Control Program
• Failures: implications on (re) emerging infectious diseases: avian influenza (bird flu), SARS, XDR TB

• http://www.jhsph.edu/humanrights/
  – News & events