Culture, Politics and Community
Living Public Health in Nigeria

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Three Themes

An overriding theme of today’s lecture will be capacity building that accounts for local culture.

This will be covered in three sub-themes:

- First, we will look at the issue of learning from local knowledge:
  - The public health researcher or practitioner needs to build his/her own capacity to understand the context of the community.
- Secondly, we will look at community capacity and experience with community volunteers.
- Thirdly, The capacity of health care organizations to deliver community health education programs based on the first two themes is explored.
Acknowledgements

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- Dean Klag and Staff
- Colleagues at Jhpiego & CCP
- The UNICEF-UNDP-World Bank-WHO Tropical Disease Research program
Nigerian States
Oyo State
Idere Town
An Abule – farm hamlets surround Ideere
Learning from Local Knowledge

The Guinea Worm Experience
A paradigm for a social-cultural perspective
Dracunculus Medinensis
An Explanatory Model of Guinea Worm

- **Systemic illness**
  - *Sobia awoka, egbesin sobia*

- **Localized, pre-swelling**
  - *Akukudidi*

- **Local swelling**
  - *Sobia, sobia eleta, wiwu, koko ara*

- **Emergent**
  - *Sobia*

- **Post-emergent**
  - *Sobia Awoka*
Before we start to think of these guinea worm beliefs and experiences as exotic
Consider all the hype and perception that goes into making
“Heart Burn”
one of the most ‘serious’ health concerns in the USA
Why does it emerge?

- Guinea worm is like a tendon, vein or nerve – that is, a normal part of the body
- It becomes loose and starts moving around if
  - One eats bad food
  - One has weak or bad blood
  - One gets near a person with an open ulcer and his worm smells the open one
  - *Sopona* curses the person
- There really is no treatment, just palliative care
- The only treatment (more like prevention) a healer mentioned involved a secret recipe with an egg after which the person could never eat eggs again
**“Scientific” View**

1. Human drinks unfiltered water containing copepods with L3 larvae.
2. Larvae are released when copepods die. Larvae penetrate the host's stomach and intestinal wall. They mature and reproduce.
3. Fertilized female worm migrates to surface of skin, causes a blister, and discharges larvae.
4. L1 larvae released into water from the emerging female worm.
5. Female worm begins to emerge from skin one year after infection.
6. Larvae undergoes two molts in the copepod and becomes a L3 larva.
Water Sources
Water Use
Illness Behavior
Palliative Care

- Ewe Imin and Palm Oil
- Lantern soot and palm kernel oil
- Ground dog bone and oil
- Burning with hot iron rod

What not to do

- Never bandage or the worm will go back inside and cause more trouble
- Although over half of survey respondents said health clinic is best care
- Only 3% ever went
  - many not for guinea worm
  - Came with another complaint and health worker saw the worm
Ewe Imin smells bad – earlier expulsion?
Sobia ma e mu mi, Sobia

- Sobia, sobia ma se mu mi o
- Sobia, eni o da latesi ko le rin o
- Sobia, sobia ma se mu mi o
- Eni o da latesi ko dide
- Sobia ma se mu mi o, sobia
  - Guinea worm don’t catch me
  - Those you knocked down last year still cannot walk
  - Guinea worm don’t catch me
  - Those you knocked down last year still cannot stand up
  - Guinea worm don’t catch me
When asked whether anyone had guinea worm in the past year

- 18 percent said moving pains - *awoka*
- 13 percent said swelling - *wiwu*
- 4 percent had rashes - *egbesin*
- 65 percent had emergent worms

Overall, 35 percent gave false positive responses, as seen in the next slide.
Epidemiology of a Cultural Illness

Types of cases reported

- Sobia/emergent: 65 percent
- Egbesin: 4 percent
- Awoka: 18 percent
- Wiwu: 13 percent
The arrangement of town and surrounding hamlets meant regular, often weekly movement of people
- People carry guinea worm back and forth

Interspersed are settlements of nomadic cattle herders
- Their presence may be ignored
- They travel to neighboring endemic states
National control of guinea worm continues

Wells, filters, rain catchment, pond protection or treatment, case containment
Meanings and Interpretations

What do people think about control measures?

• Dressing angers the worm
• Filters strain what one can see
  ▪ dirt not guinea worm, which is already in body
  ▪ Filtering is done for cassava starch
• Wells are useful and convenient regardless of beliefs about guinea worm
Much faith in ‘health education’ …

… But not always with community participation and cultural competency
Community Capacity Building

The Role of Village Health Workers
Villages are Distant

Mapping found dozens of hamlets surrounding each town
Health care from herbs, itinerant vendors
Training Proposed to Chiefs and Elders
Training Materials Draw on Culture

- *Ti sobia yoo ba di egbo,*
- *Oluganbe ni a a ranse si.*
  - Before guineaworm becomes a sore
  - it is *Oluganbe* (leaf) that we call for
- “*a stitch in time …*” type proverb
- Trainees contribute their own proverbs and stories

People know that guinea worm is ready to attack when they see these signs - rashes, itching, stinging sensation, fever, body pain and swelling on the leg or part of the body.
Training Brought to the People

- Community Selection
- Discussions about convenient times and venues
  - Schools, markets, trees
- Weekly in the late afternoon after farming
Training Rewarded with Certificates
VHW Association Formed
The association adapts to cultural realities

- Gender and cultural issues in leadership roles
  - Although men head organization, a representative of women part of leadership group
  - Once selected leaders stay in office until they wish to step down or major dissatisfaction by group

- Consensual decision making the norm
  - This can take a long time
  - To the outsider it appears like chairperson makes decision
  - He is only ‘announcing’ what the group has decided

- Associations focus on group, but individual benefits important – family commitments, revolving credit
The VHW association in Idere took responsibility for Continuing Education

- At each fortnightly meeting, one member was assigned responsibility for reviewing a lesson with the group
- Association leaders met with trainers to explore new topics of interest: family planning, leprosy, HIV/AIDS, etc.
- Made the arrangements for hosting new training sessions
  - Recruited and trained new VHWs
  - Incorporated them into the association
**VHWs use dues to make drug kits**

**Common Drugs in Boxes**
- Folic Acid
- Multi-vitimin
- Chloroquine
- Ferrous Sulfate
- Antiseptic
- Paracetamol
- Antihistimine
- Cough Mixture
- Worm Expeller
- Aspirin
VHWs treat common complaints
Perceived Benefits

- Treat self/family
- Drug availability
- Help people/children
- Time not wasted
- Gain knowledge/skill
- Gain recognition/prestige
- Drugs are cheaper
- People healthy
- Drugs are effective
- Making contacts
- Small financial gain
- Referral system
VHW association builds wells from filter sales
### VHWs, Surveillance, Disease Definition

<table>
<thead>
<tr>
<th>Guinea Worm Surveillance</th>
<th>Village Health Workers</th>
<th>Local Government Staff</th>
<th>p value</th>
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<tbody>
<tr>
<td>+ Hamlets correctly identified</td>
<td>79.4</td>
<td>88.8</td>
<td>&gt; 0.19</td>
</tr>
<tr>
<td>- Hamlets correctly identified</td>
<td>96.0</td>
<td>77.2</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>+ Reports that were actually correct</td>
<td>92.6</td>
<td>67.4</td>
<td>&lt; 0.002</td>
</tr>
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</table>
Use of post-training test
Follow-up Performance (Ile-Ife, Nigeria)

- Occupation
  - farmer
  - other

- Workshop
  - attend
  - not
Supervision and Performance

![Bar chart showing supervision performance](image-url)

- < 1 mo
- > 1 mo

Supervision

44
The Attrition Process

attention needed to local social realities and expectations
Village changes after eliminating guinea worm

Reviewing records and activities with VHW
Organizational and Health System Issues

Need for Capacity Building in Health Education and Cultural Competence
Optimism among partners in 1992 through 95
Guinea worm declines in Nigeria, but persists.

Target year for eradication.
Making Guinea Worm Political

- Guinea worm is a political disease
- Promises made – each local government to devote a set portion of budget to guinea worm
- 3-tiered system of government meant this was unenforceable
  - Lack of accountability
- Small rural towns and hamlets have little political voice
Eradication versus Integration

- Initial decisions were made that guinea worm activities should be into the local government primary health care system.
- Nigeria was internationally recognized as a champion of PHC and integration was seen as being supportive of national health policy.
- But the local government level (the level responsible constitutionally for PHC) the realities of the local health department had not changed from the 1950s.
- Therefore, one can’t integrate into something that does not exist.
- Lack of dedicated eradication staff meant that timely and focused action was difficult.
Guinea worm is a disease that affects people in small towns and hamlets – not the most politically vocal groups

Guinea worm is an agricultural, infrastructural and educational issue too

Initially the national task force was intersectoral

Unfortunately different ministries and agencies have their own agendas
  • Citing wells for communities is a political process
  • Health people were impatient
Eradication without Wells

Ultimately guinea worm control nationally focused on what the health ministry could control:

- Filters, Abate, ‘Health Education’, Case Containment
- In Ibarapa district by 1996 only 18 of 188 currently or formerly endemic hamlets had functioning wells

<table>
<thead>
<tr>
<th>Percent of Endemic Villages/Year</th>
<th>1994</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provision of Filters</td>
<td>64</td>
<td>94</td>
</tr>
<tr>
<td>Case Containment</td>
<td>12</td>
<td>90</td>
</tr>
<tr>
<td>Safe Water</td>
<td>46</td>
<td>48</td>
</tr>
</tbody>
</table>
Even with Eradication, Community Has Role

- Guinea Worm Scouts were selected on most villages
  - Communities not always involved
  - In some districts local government staff chose relatives based in the towns

- But where there were successful water projects, often it was the community that decided to help itself
<table>
<thead>
<tr>
<th>Country</th>
<th>Cases in 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sudan</td>
<td>6068</td>
</tr>
<tr>
<td>Ghana</td>
<td>3358</td>
</tr>
<tr>
<td>Mali</td>
<td>313</td>
</tr>
<tr>
<td>Nigeria</td>
<td>73</td>
</tr>
<tr>
<td>10 Countries Total</td>
<td>9838</td>
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</tbody>
</table>
Thirteen years ‘after’ eradication

GUINEA WORM RACE: 2007*

*Indigenous Cases only
The guinea worm eradication program presaged a number of health systems problems 10 years before CDTI and RBM started.

- Procurement, supply and distribution of filters, chemicals, even poster paper.
- Logistics concerns – especially transportation, mobility to reach the endemic villages with interventions in a timely manner.
- Record keeping and monitoring – especially when the records are kept at the village level.
- Organizational ‘behavior’ is thus a major concern and focus for capacity building.
Guinea Worm in Not Eradicated at the MOH
Guinea worm, as it turns out, is more than a health problem.

Besides other sectors like education, agriculture, and infrastructure (roads, water), there are major components of health behavior and culture that need to be addressed. This is more than simply a matter of framing preventive messages.

True health education not only communicates in culturally appropriate terms, but as the first essential PHC element, it enables people to identify and solve their own health and related problems.
Established in 1975 as first professional training center for graduate (MPH) level public health educators in Africa

Joint venture between WHO, Federal Government of Nigeria and the University of Ibadan

Since its founding ARHEC has trained over 300 MPH health educators

Started off with case materials and readings from US and elsewhere

Since it is a 2-year program with a research component, the students and faculty have contributed to public health knowledge and practice in Africa
Learning by Doing

- ARHEC students also have two field practice elements of their training in addition to the field research project
  - Concurrent field work 1-2 days a week to compliment course work
  - Three month internship in a health education service or research organization
- Field work enables students to interact directly with communities and learn from the local culture
- Practical training also for medical, nursing and other health science students
- In-service training
  - A diploma program for non-graduates
  - Workshops for program staff
Will the lessons be applied to other issues?

Onchocerciasis Control

- Research done on community directed treatment with ivermectin (CDTI)
  - Community makes decisions
  - Including support for community directed distributors (CDDs)
  - Including social-cultural aspects of onchocerciasis

- Adopted as the central strategy by the African Program for Onchocerciasis Control (APOC)

- Over 10,000 villages reached

- New Question – can Community Directed Intervention address other health needs?

- As more tasks added, CDI starts to resemble PHC
Back to Basics PHC returns via CDTI

Charts reproduced from Community-Directed Interventions For Major Health Problems In Africa. World Health Organization, 2008.
Learn your vectors

An editorial marking World Malaria Day in Nigeria’s Daily Trust exhorted readers as follows: “If only we can learn to clean our gutters, fumigate our drainage channels, evacuate our rubbish heaps and take other simple and sensible steps to eradicate or reduce the vector that causes malaria, we will not have cause to embark on the yearly ritual of lamenting about how we suffer so much from this public health challenge.”

While mosquitoes may breed in discarded cans and tires in rubbish heaps or in gutters in our cities, the likely culprits are Aedes species, which carry yellow and dengue fevers, and Culex species, which carry filariasis and a variety of viral diseases. Eliminating such breeding sites will certainly go a long way to promoting public health, but may not eliminate the breeding of the Anopheles species of mosquitoes that carry malaria.

http://www.malariafreefuture.org/blog/
Advocacy is a health education tool for behavior change of policy makers and implementers.

http://www.jhpiego.org/media/featarticles/ft20070711.htm
In Conclusion

- Capacity building starts with building one’s own capacity as a public health practitioner to understand the social and cultural context of the communities where we work.
- Communities have the capacity to address their own problems, even if they do not define them the same way we do – local volunteers are a key resource.
- Organizations do not always understand and involve the community, but ultimately, disease control and even eradication require the capacity of these organizations to engage in culturally appropriate health education.
Thank you for listening