Using technology to close the gap between data collection and decision making

Gitahi Ng'ang'a, Founder, Hoji Ltd
Outline

HIGHLIGHTS AND INSIGHTS

Data for decision-making: A case study
The development cycle
Paper vs electronic data
Hoji demo
Project showcase
Questions
1984

FIRST CASE OF HIV IS DIAGNOSED IN KENYA

KILLER DISEASE
The media calls it the "Killer Sex Disease". The condition is poorly understood.

A YEAR LATER
A man commits suicide because he was diagnosed with HIV/AIDS.

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GROWING PROBLEM

1 – 2%

ESTIMATED HIV PREVALENCE IN NAIROBI IN 1987
**Bad to worse**

**1989 - 1991**

Prevalence among expectant women in Nairobi rises from 6.5% to 13%!

Kenya's leadership still in denial about the extent of the problem.

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Peak Prevalence

LATE 1990'S

HIV prevalence peaks at an estimated 9 - 10%.

This finally triggers a coordinated government response.
Hope at last!

NATIONAL DISASTER - 1999

President Moi declares HIV/AIDS a national disaster.

The National AIDS Control Council is established to fight against the disease.
# Fighting the Disease

## PUBLIC HEALTH INTERVENTION

<table>
<thead>
<tr>
<th>PREVENTION</th>
<th>TESTING</th>
<th>TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion of ABC i.e. Abstain, Be faithful or use a Condom</td>
<td>People encouraged to test for HIV and know their status</td>
<td>Patients who test positive are put on Antiretroviral (ARV) therapy</td>
</tr>
</tbody>
</table>
Impact

HIV PREVALENCE BEGINS TO FALL

Coordinated efforts to fight HIV begin to pay dividends.
6.7%
NATIONAL PREVALENCE IN 2007 - KENYA AIDS INDICATOR SURVEY

4.9%
ESTIMATED PREVALENCE IN 2017 - KENYA HIV ESTIMATES REPORT

5.6%
NATIONAL PREVALENCE IN 2012- KENYA AIDS INDICATOR SURVEY
Development Cycle

01 PROBLEM

02 INTERVENTION

DATA

03 IMPACT

04 FUNDING
QUANTIFY PROBLEMS
Through baseline surveys

OPTIMIZE INTERVENTIONS
By conducting routine Monitoring and Evaluation

MAXIMIZE IMPACT
By implementing optimal interventions

AUDIT DATA
Through Data Quality Assessments

DEMONSTRATE ROI
Through impact assessments

MOBILIZE FUNDING
By backing project proposals with evidence
Where is the data?

OUT THERE IN THE FIELD

RESPONDENTS
As a researcher, you have to go out and interview respondents.

OBSERVATIONS
You can also visit the field to make and record observations.

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Pen and Paper Data Collection

1. Prepare Data Collection forms
2. Print data collection forms
3. Ship blank data collection forms
4. Fill data collection forms
5. Ship filled data collection forms
6. First round of data entry
7. Second round of data entry
8. Data cleaning
9. Data analysis
10. Reporting and Decision making
11. Store data collection instruments
12. MONTHS/YEARS
Paper-based data collection is:

INEFFICIENT
The cycle is long and slow.

EXPENSIVE
Printing, transportation, data entry, storage.

POOR QUALITY
Cannot prevent enumeration or data entry errors.
Electronic Data Collection

- Prepare Data Collection forms
- Digitize data collection forms
- Fill data collection forms
- Data Analysis (Automated)

REALTIME

Reporting and Decision making
Electronic data collection is:

<table>
<thead>
<tr>
<th>EFFICIENT</th>
<th>COST-EFFECTIVE</th>
<th>HIGH QUALITY</th>
<th>RICH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shorter and faster cycle.</td>
<td>No printing, data entry e.t.c. costs.</td>
<td>Enumeration errors can be prevented.</td>
<td>GPS, timestamps, photos, calculations.</td>
</tr>
</tbody>
</table>
DEMO TIME!

Collecting, analyzing and consuming field data in real-time

PLEASE TAKE OUT YOUR SMARTPHONE
MOBILE DATA COLLECTION AND ANALYSIS PLATFORM
Industry agnostic

OUR PLATFORM COVERS:

Health, Education, Agriculture, WASH, Economic empowerment e.t.c.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BASELINE SURVEY</strong></td>
<td>Maternal health access survey with RCTP/FACES</td>
</tr>
<tr>
<td><strong>NEEDS ASSESSMENT</strong></td>
<td>Infrastructure needs assessment with MOH/WB</td>
</tr>
<tr>
<td><strong>INDEX SURVEY</strong></td>
<td>HIV stigma Index survey with NACC</td>
</tr>
<tr>
<td><strong>SITUATION ANALYSIS</strong></td>
<td>NCDs situation analysis with CPH/JICA</td>
</tr>
<tr>
<td><strong>DATA QUALITY ASSESSMENT</strong></td>
<td>Annual DQAs with NASCOP since 2016</td>
</tr>
<tr>
<td><strong>LONGITUDINAL DATA COLLECTION</strong></td>
<td>Tracking a school feeding program with Bright Hope</td>
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</table>
Our Coverage

6 COUNTRIES AND COUNTING

Successfully executed projects in Kenya, Uganda, Tanzania, South Sudan, Somalia and Zambia.

@reallygreatsite #UnderstandingHappiness
What can we do for you?

ENUMERATOR-DRIVEN, FIELD-BASED DATA COLLECTION

- SURVEYS
  Both cross-sectional and longitudinal.

- MONITORING AND EVALUATION
  Routine monitoring and evaluation.

- DATA QUALITY ASSESSMENTS
  Auditing data pipelines.
Questions?

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