Increasing health system efficiency: Use of motorcycles for patient outreach in Kisumu, Nyanza Province

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Background: HIV care and treatment challenges

Riders for Health and FACES identified three issues that challenged HIV care and treatment:

1) Outreach health workers had to traverse difficult terrain and long distances to trace HIV-infected patients who defaulted on care.

2) Outreach health workers used public transport, walked, and had infrequent access to motorcycles.

3) Motorcycles were not preventively maintained and were not reliable.
Riders for Health and FACES formed a partnership to address these HIV care and treatment issues.

- **FACES** is a comprehensive HIV prevention, care, & treatment program.
- **Riders for Health** manages motorcycles through preventive maintenance and rider training to increase reliability.
- **Riders’ and FACES’ partnership** was initiated in October 2009. In addition to usual tracing means, nine outreach health workers were trained to use six motorcycles for defaulter tracing at five FACES-supported health facilities in Kisumu District.
Objective and methods

Objective:
Study examined whether mobilising outreach workers using accessible motorcycles maintained preventively/routinely affected patient tracing and return rates.

Methods:
– Retrospective study conducted at 5 health facilities in Kisumu District
– Aggregated program data on monthly patient defaulter tracing rates to the facility were utilized.
– Baseline data (Jan.-Sept. 2009) were compared to data from the same time period in 2010 and 2011 following implementation using paired Student's t-tests.

This study examined whether or not mobilizing outreach workers using accessible motorcycles that received routine, preventive maintenance affected patient tracing and return rates.
Methods

A retrospective study was conducted at five health facilities in Kisumu District.

✧ Aggregated program data on monthly patient defaulter tracing rates to the facility were utilized.

✧ Baseline data were abstracted and compared at three periods:
  • Baseline: Jan – Sep 2009
  • Follow-up 1: Jan – Sep 2010
  • Follow-up 2: Jan – Sep 2011

✧ Analysis was conducted using Student’s t-test.
Results across 2009 - 2011

- 10,334 patients defaulted between 2009-2011.
- 63.9% (n=6,603) were traced, among which 55.6% (n=3,669) returned.

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Number of defaulters

<table>
<thead>
<tr>
<th>Total defaulted</th>
<th>Total traced</th>
<th>Total returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,000</td>
<td>63.9% of defaulters</td>
<td>55.6% of those traced</td>
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</table>
Result #1: Tracing rates

The average monthly percentage of defaulters who were traced increased significantly (2009-2011).

* Indicates significant change from previous period (p=.0001)
** Indicates slightly insignificant change from previous period (p=.055)
Result #2: Return rates

The average monthly percentage of traced defaulters who returned increased significantly (2009-2011).

* Indicates significant change from previous period (p=.0216)
** Indicates significant change from previous period (p=.0393)
Conclusions

♦ Substantial increases in tracing and return rates were found after managed motorcycles were introduced.

♦ Increases could be potentially attributed to:
  – Increase in facility staff numbers
  – Use of phone tracing and other tracing means
  – Motorcycle functionality

♦ Providing outreach workers with managed motorcycles may be a viable approach to increase tracing and other outreach services in Kenya.
Acknowledgements

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♦ For more information on the programme, please contact partnerships@riders.org or visit www.riders.org

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