Supporting Community Health Workers in India with Personalized Feedback

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Community Health Workers (ASHAs) provide essential health services to vulnerable populations.

ASHA programs have been shown to improve health outcomes.
ASHAs collect essential data from target populations using mobile devices
Successful community health programs are challenging to run

Supervision is expensive
ASHAs do not receive feedback
ASHAs feel isolated
Performance declines over time
Can we motivate ASHAs by providing personalized feedback?
Design Constraints

- Low literacy
- Limited education
- Unreliable connectivity
- Feature phones
- Limited supervision
Kaushambi District, Uttar Pradesh, India
Iterative Design and Fieldwork
Context is important
The ASHA Self-Tracking System (ASTA)

Reshma Devi

Everyone's performance

Calendar

Past 5 months performance
The ASHA Self-Tracking System (ASTA)

Everyone's Performance

0 visits

More visits

Other ASHAs and me

#:15 Of 22, 15 pregnant clients were visited
The ASHA Self-Tracking System (ASTA)

Everyone's Performance

1/11/2014 - 1/11/2014

0 visits

Of 17, 0 pregnant clients were visited
The ASHA Self-Tracking System (ASTA)

A Parallel Voice-Based System

“Hello Meena Yadav. Please listen to your CommCare home visit report carefully. In February, among 15 clients, you have visited 12 and three visits remain. Among 10 ASHAs you are in third place. Thank you.”
Field evaluation in Uttar Pradesh

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Control</th>
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<tbody>
<tr>
<td>71 ASHAs</td>
<td>71 ASHAs</td>
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Field evaluation in Uttar Pradesh

How does the system impact ASHA performance?

How do the ASHAs feel about receiving feedback?

How do the ASHAs use the different parts of the system?
How did feedback affect performance?

Average monthly visits 21.5% higher with ASTA
How did ASHAs feel about the feedback?

“I felt motivated . . . like I completed eight home visits so by seeing this it motivated me to do more work. It also motivated me to add new pregnant women in my lists because then I can do more home visits.”

“I feel bad when I cannot do much work. When I go to the home visits many people are not available because of harvesting which is why my work is less.”

“When my ranking position was low then I felt badly... but I didn’t have any new beneficiary that I could register...”
How did ASHAs use the different systems?

The diagram shows the ASTA modality usage by ASHA. The x-axis represents the ASHA ID, and the y-axis represents the access count during the study. The bars are color-coded: teal for web use and light blue for voice use. The majority of ASHAs used the system primarily through voice, indicated by the light blue bars. A section on the right indicates majority web use.
How did ASHAs use the visualizations?
Key Takeaways

It is essential to pay attention to the context.

Metrics are challenging.

Providing multiple interaction modalities helps.

Interventions do not exist in isolation.

Comparative feedback was effective, but not without challenges.
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