Gyan Jyoti: Empowering Community Health Workers with ‘The Light Of Knowledge’

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Objective

- Introduction to Gyan Jyoti application
- Findings from proof of concept study
- Discuss challenges experienced
- Future opportunities for mHealth initiatives
Project Ujjwal
Reproductive Health Project (2013-2015)
Reaching Bihar

- Despite India’s TFR at 2.7, Bihar is still struggling with 3.4 TFR (source: NFHS-3 / NFHS-4)
- Skew towards female sterilisation (20.7%) puts the burden of FP on woman (source: NFHS-4)
- Social taboos, incorrect information coupled with myths, fears and concerns regarding side effects, negative word of mouth adversely affect acceptance
- Frontline Health Workers or ASHAs in India need adequate support in order to motivate young and low parity couples to adopt modern contraceptives
mHealth Game Changer: $40 Smartphones

- In the next 2 years, whether subsidized or not, most health workers will own smartphones.
- Even disconnected from the Internet, these phones are basically small computers with entertainment systems.
- Need to plan and design mHealth solutions around this trend.
- Exploit growing community networks based on smart phone digital transfers.

[Bar chart showing internet access points in Rural India, with CSC/Cybe Café having the highest usage of 49%.]
Gyan Jyoti: A Powerful SBCC Tool

Self-Learning Tool:
Easy access to technical content

Counselling Tool:
Decision support tool, offering need-specific counseling using AV content that is standardized, motivational, and persuasive

Monitoring Tool:
Provides usage statistics; client-specific counselling sessions tracked
360° communication materials for family planning

Doctor Speaks

Role Model Film

My name is Nishu and he’s my husband, Jitendra Kumar.

TV Spot

Soap Opera based Film

Mother–father! With your blessings, I am now handing over the
Pairing Individual Counselling and Persuasive Audio-Visual Communication

**Personal Counseling by ASHAs**
- Flexibility to seek clarifications
- Human Intervention makes it personal and relatable

**Persuasive SBCC Films**
- Audio-visual format engages audience
- Message delivery is entertaining and easy to understand

**Doubts and Queries Addressed by a Trusted person at source**
ASHA selects the client to be counseled which opens the case profile.

Virtual Tour

Counselling materials accessible by contraceptive method

4 kinds of films available by method by information need – Doctors films, Role Model films, Entertaining films and TV PSAs

Watching persuasive films

Frequently asked questions by contraceptive method
Key Features

• **Built for Sustainability:**
  – Developed as part of an evolving global Digital Content Delivery System that supports creation, curation, localization, packaging and distribution of health content (India, Ethiopia, Nigeria and Pakistan)

• **Ease of Content Management:**
  – Integrated with Moodle most common open source Learning Management System allowing for low cost development and deployment of content

• **Analytics:**
  – Usage statistics collected by the app and uploaded to the admin server whenever there is a connection. Statistics reflect what resource was used and when and for how long.

• **Works Offline:**
  – No internet connection necessary to run the app once it is fully registered and media loaded

• **Open Source:**
  – No licensing requirements
  – Code and functionality can be freely shared

• **Easy Access:**
  – Available for download from Google Play

• **Adaptable To Many Languages:**
  – Gyan Jyoti available in Hindi and English
  – Adaptable to any language for an Android based device
Proof of Concept Study

Objective: To provide proof of concept for Gyan Jyoti App

- Post Only: 2 arms; Gyan Jyoti & SD Cards
- Focused on FP acceptors and current users in the past one year
- Sample drawn from married women (18-49 years) including those sterilized in the past year
- Study conducted during May-June 2015
Current Use of Modern FP Methods

Percentage of Women using Modern FP Methods


- Samastipur Modern Method
- Darbhanga Modern Method

Percentage of Women using Modern FP Methods:
- Oct 2014: 18.5%
- May 2015: 13.1%
Family Planning Method Mix

Darbhanga SD card

- Female sterilization: 35.4%
- Injectables: 20.35%
- Condom: 17.7%
- Pill: 8.85%
- LAM: 5.31%
- Withdrawal: 1.77%
- IUD: 4.425%
- Std days method: 4.425%
- Rhythm method: 3.409%

Samistipur Gyan Jyoti

- Female sterilization: 34.09%
- Injectables: 11.36%
- Condom: 12.5%
- Pill: 9.091%
- LAM: 9.091%
- Withdrawal: 14.77%
- IUD: 3.409%
- Std days method: 2.273%
- Rhythm method: 3.409%

Darbhanga N = 357
Samistipur N = 339
Current Modern Contraceptive Use by District

Darbhanga SD card
- No: 12.89%
- Yes: 87.11%

Samistipur Gyan Jyoti
- No: 78.47%
- Yes: 21.53%

P < .01
Darbhanga N = 357
Samistipur N = 339
Exposure to ASHA Home Visit & Gyan Jyoti Films

N= 406

*** P < 0.0001

JOHNS HOPKINS
Center for Communication Programs

BLOOMBERG SCHOOL
of PUBLIC HEALTH
## Logistic Regression: Current Use of Modern FP in 2 districts in Bihar

### Independent Variables

<table>
<thead>
<tr>
<th>Exposure to Gyan Jyoti Intervention</th>
<th>Odds Ratios (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No exposure</td>
<td>1</td>
</tr>
<tr>
<td>ASHA home visit</td>
<td>1.9** (1.2 -3.2)</td>
</tr>
<tr>
<td>ASHA home visit + films on mobile phone</td>
<td>4.5*** (2.4-8.5)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>District</th>
<th>Odds Ratios (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD Card District</td>
<td>1</td>
</tr>
<tr>
<td>Gyan Jyoti District</td>
<td>1.5* (0.98-2.4)</td>
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### Media Exposure: TV, radio, magazine or newspaper

<table>
<thead>
<tr>
<th>Media Exposure</th>
<th>Odds Ratios (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Exposure (0 Media)</td>
<td>1</td>
</tr>
<tr>
<td>Low Exposure (1 Media)</td>
<td>.80 (.39-1.6)</td>
</tr>
<tr>
<td>High Exposure (2+ Media)</td>
<td>2.5*(.80-8.1)</td>
</tr>
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### Has trust in family planning

<table>
<thead>
<tr>
<th>Trust</th>
<th>Odds Ratios (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>1</td>
</tr>
<tr>
<td>High</td>
<td>1.7* (1.0-2.7)</td>
</tr>
</tbody>
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Adjusted for age, education & SES

* P <.05   **P < .01   *** P < .001

+ Excludes currently pregnant women

Pseudo R² 0.082
Implementation Challenges

- Implementation period was shorter than anticipated
- Gyan Jyoti deleted from the phones by family and ASHAs
- Low mobile literacy of a few ASHAs
- Routine technical support to ASHAs for troubleshooting for phone and app related problems
Conclusion

• Gyan Jyoti helped bridge the knowledge gap by providing ready access to correct and credible information
• Increased ASHAs credibility in her community, empowered her to confidently promote modern contraceptives
• Enabled informed decision making by the clients
Way Forward

• Convergence with other health behaviors across the RMNCH+A spectrum
• Integration with service delivery platforms to develop an integrated client tracking, counseling and follow-up mechanism