Dimagi and CommCare for Mental Health

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Dimagi, Inc.
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• Socially conscious software company created in 2002 out of Harvard and MIT

• Experience implementing hundreds of projects in 60+ countries

• Team of 120+ engineers, scientists, public health experts, physicians and field consultants
  • Offices in the United States (HQ), Senegal, India, & South Africa

• Makers of CommCare (www.commcarehq.org), a leading open source mobile platform for the last mile
- A leading, open source platform that enables anyone to design and launch mobile apps.
- Most widely used, evidence-based mobile platform used by frontline workers (FLWs)
CommCare is an open source, cloud-based mobile and web platform designed for non-programmers to design, deploy and use mobile applications for free.
Used across numerous sectors, from health to agriculture to WASH.
Designed for multiple use cases, & across multiple types of users.

CommCare

Data Collection

Client Counselling

Checklists & Protocols

SMS & Training Reinforcement

Real-time data

Monitoring & Evaluation
Active in 60+ countries, across hundreds of projects.
Case Study: UW-Spirit Application
Impact area: Mental health disorders are a major contributor to the global burden of disease. WHO estimates that over 300 million people around the world suffer from depression and it is the leading cause of disability worldwide.

Location: (USA) Dimagi worked with the University of Washington to launch an application in rural communities throughout 3 states where access to mental health care providers is extraordinarily low: Washington, Arkansas, & Michigan

America’s health care safety net: 9,000 Community Health Centers (CHCs) providing services to 21 million Americans

- Almost half (49%) of CHC patients live in rural areas
- 93% live at or below the Federal Poverty Level
- 547% increase in CHC patients with a MH diagnosis between 2001 and 2012
- Over 1 million patients diagnosed with a MH disorder in 2013 alone
- In 2012, there was 1 psychiatrist per 49,764 CHC patients and 1 psychologist per 43,505 CHC patients

CommCare: Patient app integrated with community clinics’ EMR system for both patient self-management and coordination directly with their care team.
What does the App do?

- **Self-monitor symptoms** for depression, bipolar, and/or PTSD
- **Communicate with their mental health care providers** on their care plans, medication adherence, and symptoms
  - providers can view patients’ weekly symptom score in their patient registry EMR system to prioritize who needs a check in or additional support
- **Manage a support plan and safety contacts** (with the ability to call out to registered support contacts, including family, friends, and supportive services)
- **Learn more** about different mental health conditions, treatment options, medications and side effects
- Set up and manage **personal SMS reminders** for symptom check ins, medications, visits etc...
APP DEMO
Once the CommCare SPIRIT app is on the patient’s phone she can log in with her unique username and password. She then clicks “Enter” to enter the app.
She chooses **First Time Set Up** to personalize her app.
She **sets up** her support contacts.
She **sets up:**

- Daily text message reminders to take her medication
- Weekly text message reminders to complete her check ins
App Demo

She sets up:

- The time of day she would like to receive the message

- The message text:

  Example: “Please complete your daily check-in”

  “Remember to take your medication”
Once a week, the patient logs into her app to check-in with her care manager.
She selects what she would like to check-in on, based on her care plan:

- Depression symptoms
- Medication adherence
- PTSD symptoms
- Mania symptoms
App Demo - Check in

She answers a series of questions based on how she’s felt over the past week.
At the end of each assessment, she sees her score.

She’s also provided with feedback, based on the results.

(This is the message if her score is GREEN.)
App Demo - Check in

She will see this message if her score is **YELLOW**.
She will see this message if her score is **RED**.
Then, the patient can submit her scores to the care manager over her phone.
At anytime, she can log in to the SPIRIT app, and view her progress.
App Demo - View Progress

Her weekly scores are shown on a graph.
Impact to Providers (Hypothesis)

- Patient data on medication adherence and symptoms scales can inform Care Manager **coaching to improve medication adherence**
- **Help identify which patients' medications aren't working** based on their symptom scales over time; can pivot treatment model, and refine and individualize interventions and care plan
- Care providers can **see alerts** if any patient responded > 0 to suicide ideation scale (0-3) and direct immediate care
- Care providers can **identify manic or depressive symptoms / trends** with better real time data to refine diagnosis on whether a patient has depression or BD
Impact to Patients (Hypothesis)

- **Improved understanding** of side effects / mitigation strategies via the Learn More section
- **Improved access to support**
- **Improved awareness and mitigation strategies** for symptom triggers & coping strategies
- **Improved med adherence** via SMS reminders (can also set up any weekly / daily sms reminder patients want to support other behavioral activation therapy)
UW Impact Metrics

1. **Health related quality of life** – The primary outcome measure (measured with the Short Form 12 Mental Health Composite summary scores)

2. **Patient self-reported symptoms** with disorder-specific assessments (standard is PTSD= PCL, depression= PHQ-9, Bipolar = Mania)

3. **Side Effects** – the number and severity of patient-reported medication side effects

4. **Recovery outcomes**: Measured using the Recovery Assessment Scale covering five domains: confidence and hope, willingness to ask for help, goal and success orientation, reliance on others, and no domination by symptoms.
Thank you!
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For more information on Dimagi, please visit www.dimagi.com
For more information on CommCare, please visit www.commcarehq.org
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