Challenges and opportunities facing digital health innovation for vulnerable populations

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Major challenges and opportunities

1. Too much focus on doctors and hospitals
2. Moving target of reimbursement
3. Evidence gap for emerging innovations

What We Do

Care at Hand

Smart surveys that accurately predict hospitalizations using observations of non-clinical workers

Survey library

Expert-informed,
Psychometrically validated,
Field tested

Risk prediction algorithms

Evidence-based,
Statistically significant,
Inputs: non-clinical observations

Analytics

Must-have data with most granular leading indicators in the market

1. Savings are in the community not in the hospitals

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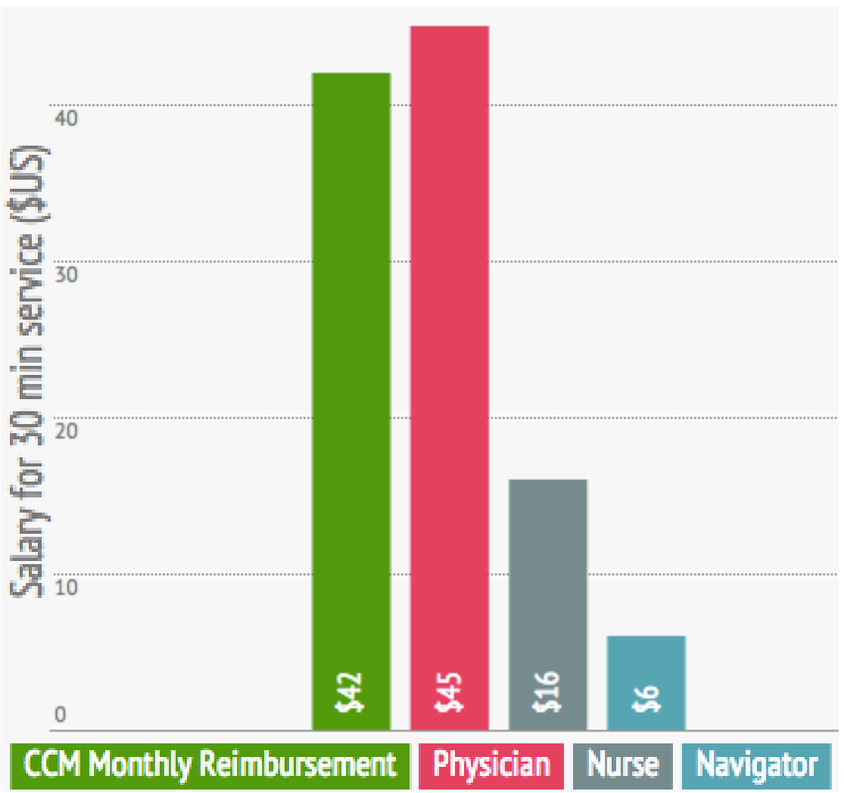
Clinician-staffed approaches to reduce admissions are **not sustainable**



Example: Reimbursement & salaries for 30 min of chronic care management (CCM)

Trends contributing to lack of sustainability

Current risk prediction tools leave blind spot between doctor visits

Inability to target interventions to a specific patient

Quality measurement only limited to quarterly reporting

Physician and nursing workforce shortage

A Huge Missed Opportunity

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Customers pay for and underutilize **5 million** non-clinical workers in attempting to reduce **$250 BILLION** in avoidable costs

Current communication process:

Non-clinical worker helps with activites of daily living, education, and/or care coordination

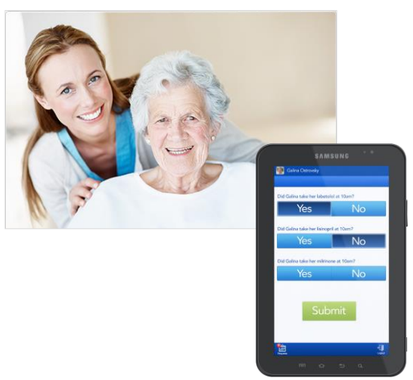
Nurse Care Manager is informed too late or not at all

- Emergency Dept/ Admission — $ $ $ $ $ (Cost to Payer)
- Primary Care Provider Visit — $ $ $ $ (Cost to Payer)
- Home Visit by Nurse — $ $ $ (Cost to Payer)
- Call into Home by Care Coordinator — $ (Cost to Payer)

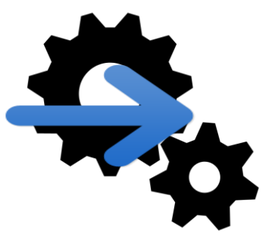
Our Solution

Digitizing the “hunch” of non-clinical workers to detect early decline

Care at Hand communication process:



Non-clinical worker completes survey



Nurse Care Manager receives alerts

Emergency Dept/ Admission	$ $ $ $ $ (Cost to Payer)
Primary Care Provider Visit	$ $ $ $ (Cost to Payer)
Home Visit by Nurse	$ $ $ (Cost to Payer)
Call into Home by Care Coordinator	$ (Cost to Payer)

2. Using QI to hit the moving target of reimbursement

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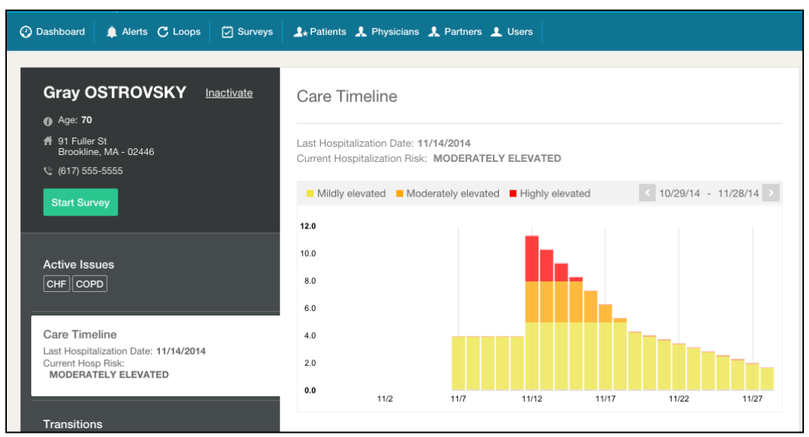
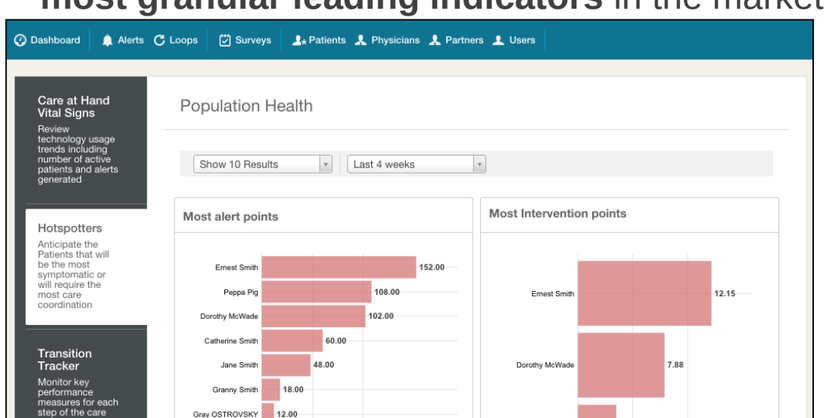
Analytics beyond the smart surveys to support QI

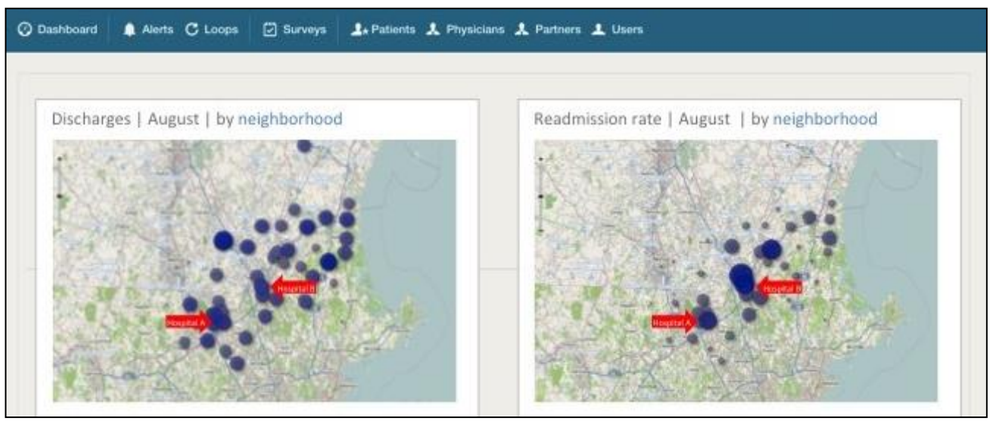
1 Continuous Risk Prediction **sheds light on admissions** in blind spot between doctor visits



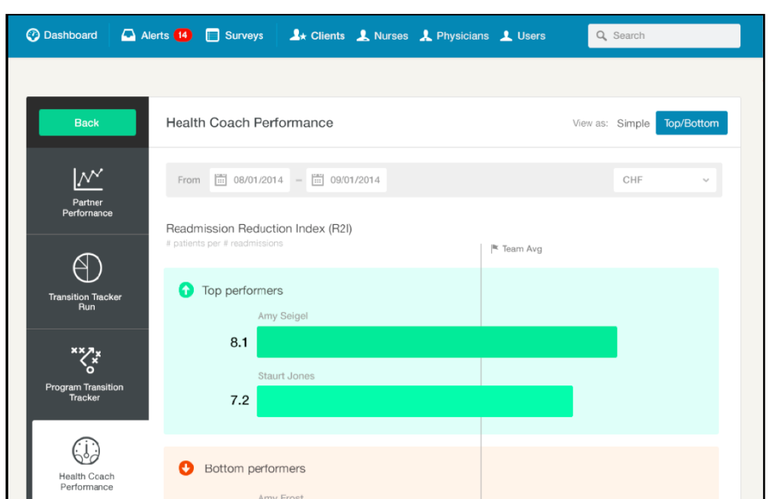
3 Quality measurement data offers must-have, **most granular leading indicators** in the market



2 Hotspotting enables **precisely targeted, more cost-effective**, patient-centered interventions



4 Workforce measurement and motivation **eliminates high turnover rates**



US Patent Serial No. 61/936459

3. Closing evidence-gap for emerging innovations

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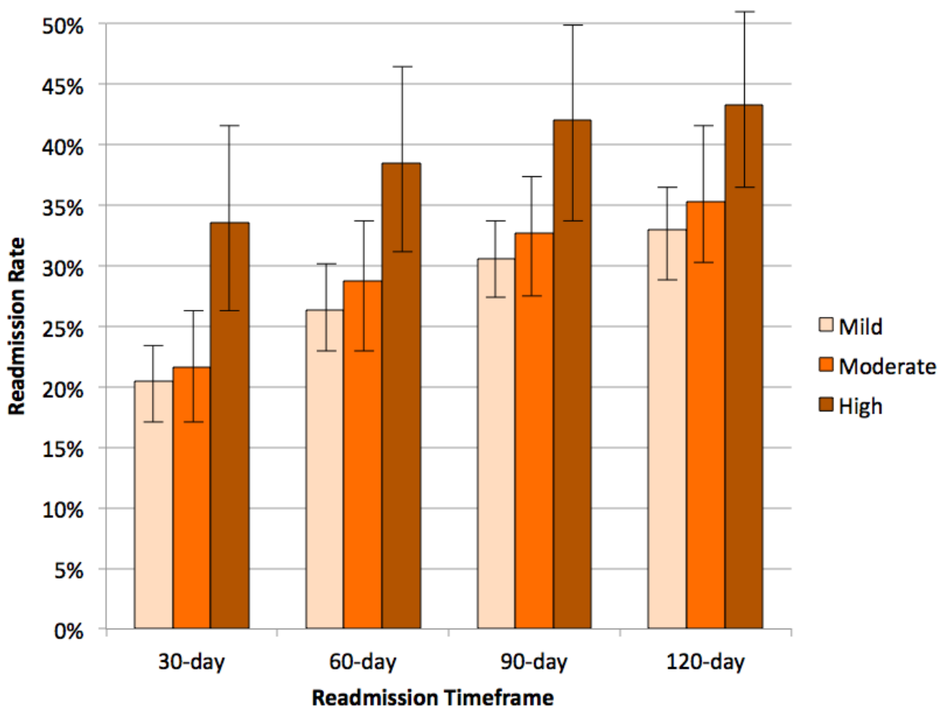
Once rapid-cycle testing show traction, explore generalizability through research

Demonstrating new models



Showing results

▼ 39.6%

30 day readmissions among at-risk patients eligible for health coach

▼ $109

savings per member per month

AHRQ. Community-based Health Coaches and Care Coordinators Reduce Readmissions Using Information Technology to Identify and Support at-risk Medicare Patients After Discharge. Agency for Healthcare Research and Quality Healthcare Innovations Exchange. Rockville, MD. 2014

Ostrovsky A. Improving Community-Based Care Transitions with Technology – Decreasing cost and improving outcomes. *HIMSS.* Orlando, Fl. 2014.

Ostrovsky A, O'Connor L, Handrus M et al. Predicting 30, 60, 90, and 120-day readmission risk among Medicare FFS patients using non-clinical workers and mobile technology. 2014. *In review.*

Ostrovsky A, Stacom R, Handrus M. Early detection of hospital admissions among a dually eligible populations with COPD and pressure ulcers using mobile technology. United Hospital Fund. 2014. *In review.*

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Analytics to make aging more human and less health care

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