Formalizing Community-Clinical Linkages: Massachusetts DPH e-Referral Project

September 18, 2014

Massachusetts Department of Public Health
I. Overview of MA SIM e-Referral project

II. Update on MA SIM e-Referral Project
   • Progress & Early Implementation:
     EHR integration, MassHiway e-Referral node, onboarding process
   • (Early) Lessons Learned

III. Alignment of e-Referral with other MA DPH, state, and federal initiatives

IV. Questions
MA State Innovation Model Award

What is our goal?

The Triple Aim: Better population health, better experience of care, lower costs

How do we do it?

Payment Reform

Delivery system transformation

Cost and quality accountability

How does SIM help us get there?

- Medicaid’s Primary Care Payment Reform Initiative
- The Group Insurance Commission’s value based purchasing strategy

- Provider portal on the APCD
- Adoption of the Health Information Exchange
- Data infrastructure for LTSS Providers
- **Electronic referrals to community resources**
- Access to pediatric behavioral health consultation
- Linkages between primary care and LTSS
- Technical assistance to primary care providers
- HIE functionality for quality reporting
- Statewide quality measurement and reporting
- Payer and provider focused learning collaboratives
- Rigorous evaluation
MA SIM e-Referral Program

In early 2013, Massachusetts was awarded the SIM Testing Award. Part of this award was to create an open-source, bi-directional referral system to formalize community-clinical linkages

- 4 specific types of community-based organizations were named in the application
  - YMCAs, Councils on Aging/Senior Centers, VNAs, and Tobacco Quitline

- Partnership with the Massachusetts League of Community Health Centers
  - EHR integration work, legal advice, and evaluation
  - Will provide encounter-level medical records through CHIA DRVS system

- Includes roll-out plan to make software available state-wide resulting in more providers using e-Referrals across additional types of community resources
  - PWTF awardees will be implementing e-Referrals
  - Additional pilot sites to start onboarding in January
Early use-case development

The first several months of the project were spent developing exploring potential use cases.

MA DPH and the Massachusetts League of Community Health Centers engaged:

• From the clinical organization perspective:
  Clinical providers (including pediatricians), referral managers, community health workers, Massachusetts League of CHCs

• From the community-based perspective:
  Programs from other state agencies and DPH (Asthma Prevention & Control Program, Early Intervention, Healthy Living Center for Excellence), Alliance of MA YMCAs and different YMCAs, elder services organizations, VNAs, mobile health vans, school nurses, community health workers
Example of bi-directional referral

Clinical Setting

Manet CHC
Health care provider screens Barbara for falls and finds her to be at-risk. Barbara gives consent for a SS Elder Services to do a home falls assessment.

Outbound Transaction
Transmission from EHR
(through the Hiway or directly to e-Referral software)

e-Referrals from Provider to South Shore Elder Services
Contact Information: Address, Phone
Referral-specific information:
(1) At risk for falls
(2) Guardian information

Community Resource
SS Elder Services
Barbara is contacted by SS Elder Services and sets up a home assessment. Trained staff completes a home assessment and any necessary modifications.

Inbound Transaction
Transmission to EHR
(through the Hiway or directly to e-Referral software)

Clinical Setting

Manet CHC
Feedback report from SS Elder Services added to EHR. At next appointment, health care provider sees the update and works with Barbara to identify additional risk reduction referrals.

Community Resource
SS Elder Services
SS Elder Services completes the home assessment and prepares a feedback report for provider.

Progress report from community resources to provider
(Standardized HL7 Formatted Transaction)
Feedback report including action steps to taken in the home, request for additional referrals sent back to provider.
Update on Pilot Program
3 Pilot Community Health Centers

Brockton Neighborhood Health Center
- Partnered with the Brockton VNA
  Referrals: Diabetes Education

Harbor Health Services, Inc.
- Partnered with Multicultural Home Care
  Referrals: Diabetes Education
- Partnered with YMCA of Cape Cod
  Referrals: Nutrition Counseling, Fitness Counseling, and Fitness and Nutrition Counseling combined

Manet Community Health Center
- Partnered with South Shore Elder Services, Inc.
  Referrals: Meals on Wheels and Falls Risk Assessment
e-Referral Connections

CHC #1
CHC #2
CHC #3

Message Transmitted to Universal Translator directly or through MassHIway

Feedback Data

Referral Data Items

Tobacco Quitline
YMCA
Council on Aging
VNA
Additional Resources

EHR integration
EHR -> e-Referral
e-Referral Gateway / integration with UT
Integration with 2 unique EHRs:

Worked directly with the EHR vendor for athenahealth integration

- Using an existing HL7 export/import function for sending referral and receiving feedback reports

Worked with E-Medapps for integration with NextGen v 8.3:

- Using their interface engine that is also used to connect to HIEs, SevaExchange
- Sending referrals and receiving feedback reports via CCD

Today both systems are:

- Sending and receiving messages via SFTP
- EMR user forms/templates modified to support multiple referral types to multiple community-based organizations.
Initiating a referral in NextGen

1. Specify/specialist name/site
2. Provider name
3. Address/Detail

EOHHS
## Initiating a referral in NextGen

<table>
<thead>
<tr>
<th>Specialty:</th>
<th>Provider name:</th>
<th>Location:</th>
<th>Code:</th>
<th>Description:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>YMCA, Cape Cod</td>
<td>250.00</td>
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- Assume care
- Surgery
- Diagnostic testing

**Time limit:**

**Timeframe:**
Initiating a referral in NextGen

- YMCA, Cape Cod
- VNA, Brockton
- VNA, Multi Boston

Specialty: 
Provider name: 
Location: YMCA, Cape Cod
Internal referral
Authorization required: No

Code: Description:
250.00

- Assume care - Surgery - Diagnostic testing

Time limit: Timeframe:
Initiating a referral in athenahealth

Generate Order: (MOW and/or Fall Risk Assessment)

<table>
<thead>
<tr>
<th>Diagnoses and Orders Detail</th>
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<tbody>
<tr>
<td><strong>1. Headache</strong></td>
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<tr>
<td>ICD-9: 784.0: Headache</td>
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<table>
<thead>
<tr>
<th>Add Orders</th>
<th>Most Used</th>
<th>Order Set</th>
<th>Medication</th>
<th>Lab</th>
<th>Imaging</th>
<th>Vaccine</th>
<th>DME</th>
<th>Surgery/Px</th>
<th>Referral</th>
<th>Patient Info</th>
<th>Other</th>
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</thead>
<tbody>
<tr>
<td>MEALS ON WHEELS</td>
<td>Schedule Within: provider's discretion</td>
<td>Send To: SOUTH SHORE ELDER SERVICES INC</td>
<td>Note to Provider: Test</td>
<td>Internal Note: Test</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>FALL RISK ASSESSMENT</td>
<td>Alarm: 28 days</td>
<td>Schedule Within: provider's discretion</td>
<td>Send To: SOUTH SHORE ELDER SERVICES INC</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Print</td>
<td>Assigned to nobody [CLOSED] as [task #1873847]</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
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</table>

EOHHS
Initiating a referral in athenahealth

After approve generated Order will transfer through HL7 format file on Interface:

<table>
<thead>
<tr>
<th>view</th>
<th></th>
<th>PROCESSED</th>
<th>OUT</th>
<th></th>
<th>EREFERRAL::DPH</th>
<th></th>
<th>PROCESSED: 08/05/2014 14:41:32</th>
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<td>view</td>
<td>794247</td>
<td>08/05/2014 14:40:02</td>
<td>OUT</td>
<td>O01</td>
<td>EREFERRAL::DPH</td>
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<td>08/11/2014 13:30:20</td>
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<td>O01</td>
<td>EREFERRAL::DPH</td>
<td></td>
<td></td>
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</tbody>
</table>

[HL7 message content]

MSH|~\|ATHENANET|4368^MA - Manet Community Health Centers|EREFERRAL::DPH|11792616^SOUTH SHORE ELDER SERVICES
PID|717|~\|19800101|F|941^Patient Declined|4 MAIN STREET^^BRIGHTON-MA-02135^UNITED STATES
PV1|6^QUINCY MEDICAL
IN1|0^SELF PAY
GT1|14^4 MAIN STREET^^BRIGHTON-MA-02135
ORC|NW|1874371H4368|1874371H4368
OBR|1|1874371H4368
NTE|1|P|Test|GI
DG1|1|783.6^POLYPHAGIA|19|20140805000000|F|
Receiving a feedback report in athenahealth

<table>
<thead>
<tr>
<th>Inbound Message</th>
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<tbody>
<tr>
<td><strong>MEALS ON WHEELS in CLOSED to nobody (created 07/25/14 3:20 PM)</strong></td>
</tr>
<tr>
<td>Tie to Order</td>
</tr>
<tr>
<td>Department</td>
</tr>
<tr>
<td>Internal Note</td>
</tr>
<tr>
<td>Priority</td>
</tr>
</tbody>
</table>

Referral Status: Closed
Patient Activity Status: Patient Contacted
CBO Feedback Notes:
e-Referral Connections

Message Transmitted to Universal Translator directly or through MassHIway

CHC #1
CHC #2
CHC #3

Feedback Data
Referral Data Items
Feedback Data
Referral Data Items

EHR integration
EHR -> e-Referral

Additional Resources
VNA
Council on Aging
YMCA
Tobacco Quitline

e-Referral Gateway / integration with UT
Today, health care organizations have the option of connecting through either the state health information exchange or directly through SFTP. e-Referral users are able to connect through (1) SFTP, (2) file upload/download, or (3) web services/API.

Community-based organizations will be primarily using the e-Referral Gateway to manage their referrals.
e-Referral Connections

CHC #1

CHC #2

CHC #3

Message Transmitted to
Universal Translator
directly or through MassHiway

Feedback Data

Referral Data Items

EHR integration

EHR -> e-Referral

Tobacco Quitline

YMCA

Council on Aging

VNA

Additional Resources

e-Referral Gateway / integration with UT
As part of e-Referral onboarding, each person managing referrals at a community-based organization will get a unique log-on and training:
# e-Referral Gateway Inbox

![e-Referral Gateway](image)

<table>
<thead>
<tr>
<th>Batch Name</th>
<th>Total Transactions</th>
<th>System Status</th>
<th>Sent By</th>
<th>Date Received</th>
<th>View</th>
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<tbody>
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<td>51720149602185500</td>
<td>1</td>
<td>SDC</td>
<td>Harbor Community Health Center 735 Attucks Lane</td>
<td>6/2/2014 6:55:00 PM</td>
<td><img src="image" alt="View" /></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Hyannis MA 02601 (User: Karen Smith)</td>
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<td>51720149602190000</td>
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<td>TBC</td>
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<td>Hyannis MA 02601 (User: Karen Smith)</td>
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</tbody>
</table>
e-Referral Gateway Referral Detail

Fitness Referral Transaction

Date Submitted: June 12, 2014 10:17:11 AM EDT
Batch ID: 5127214610120000
Transaction Type: Original Message
System Status: SSR

Patient Refused Service

Originating Organization:
Harbor Community Health Center
735 Attucks Lane
Hyannis MA. 02601
phone: 508-778-0300
tax: 508-778-0374

Originating Organization Provider:
Dr. Gabrielle Smith
ID: 123456
735 Attucks Lane
Hyannis MA. 02601
phone: 508-778-0300

Recipient Organization:
YMCA Cape Cod
2245 Lyannough Rd
West Barnstable MA, 02668
phone: 774-515-5101
fax: 508-362-5379

[Options: Print, Save As, View Feedback Reports, Create Feedback Report]
• **Initial Planning** – Getting the right people together to define the plan, roles and responsibilities. Review e-Referral Gateway for high level context.

• **e-Referral Workflow** – What is the e-Referral process in the clinical setting? What referral types? What information must be provided to support the workflow?

• **System Enhancements/Configuration** – Technical team ensures that all technology requirements are met (EMR, network, eRG, MassHiWay).

• **Implementation** – Staff are trained, e-Referrals begin, processing is monitored, outcomes are evaluated.
(Early) Lessons Learned

• Don’t underestimate the importance of workflow:
  • Overall workflow and developing business rules
    \[ \text{CHC} \to \text{CBO, CBO} \to \text{CHC} \]
  • Promotion and workflow within clinical setting
  • Workflow in community-based organizations, ensuring capacity

• Ensure organizational buy-in as early as possible, make sure the right stakeholders are at the table

• Start small (expand later!)

• Simplify, simplify, simplify
e-Referral timeline, implementation targets, & evaluation

**Accountability Targets**

<table>
<thead>
<tr>
<th>2014</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-Referral software launch</td>
<td>Testing</td>
<td>Pilot launch</td>
<td>50 referrals transmitted</td>
<td>9 e-Referral sites</td>
</tr>
</tbody>
</table>

**Evaluation**

**Process Measures**

# referrals, # feedback reports, # unique EHRs, # unique CHCs/CBOs

**Short-term Outcomes**

decreased BMI, increased HTN control, decreased A1C

**Long-term Outcomes**

reduced sick and ED visits, improved population health metrics

**Referrals made using e-Referral software**

**Integration with state HIE**

**Awarded 3 CHCs contracts for e-Referral pilot**

**3 additional CHCs pilot plus additional CBOs**

**3 additional CHCs pilot plus additional CBOs**

**Evaluation examining impact of e-Referral on health outcomes**

Quarterly QI reports to increase referrals
Aligned e-Referral with many other state and federal initiatives—

- large focus on community-clinical linkages
- linking community-based interventions to health outcomes

- Prevention & Wellness Trust Fund
- Asthma Prevention & Control Program (linkages to schools)
- State Public Health Actions to Prevent & Control Diabetes, Heart Disease, Obesity and Associate Risk Factors
- Exploring use for advanced directives, transitions of care
Thank you!

CMMI for making the development of the e-Referral software possible through the MA State Innovation Model Testing Award
Contact

Tom Land
Thomas.Land@state.ma.us

Laura Nasuti
Laura.Nasuti@state.ma.us

Michael Stelmach
Michael.Stelmach@state.ma.us
Questions?