

# 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

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

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:

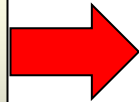
- From the clinical organization perspective:
  - Clinical providers (including pediatricians), referral managers, community health workers, Massachusetts League of CHCs
- From the community-based perspective:
  - Programs from other state agencies and DPH (Asthma Prevention & Control Program, Early 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

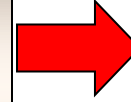
Health care provider screens Barbara for falls and finds her to be at-risk. Barbara gives consent for a SS Elder Services to do a home falls assessment.



## Outbound Transaction Transmission from EHR (through the HL7way 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

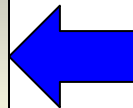
Barbara is contacted by SS Elder Services and sets up a home assessment. Trained staff completes a home assessment and any necessary modifications.



## Clinical Setting

### Manet CHC

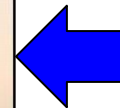
Feedback report from SS Elder Services added to EHR. At next appointment, health care provider sees the update and works with Barbara to identify additional risk reduction referrals.



## Inbound Transaction Transmission to EHR (through the HL7way or directly to e-Referral software)

### Progress report from community resources to provider (Standardized HL7 Formatted Transaction)

Feedback report including action steps taken in the home, request for additional referrals sent back to provider.



## Community Resource

### SS Elder Services

SS Elder Services completes the home assessment and prepares a feedback report for 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

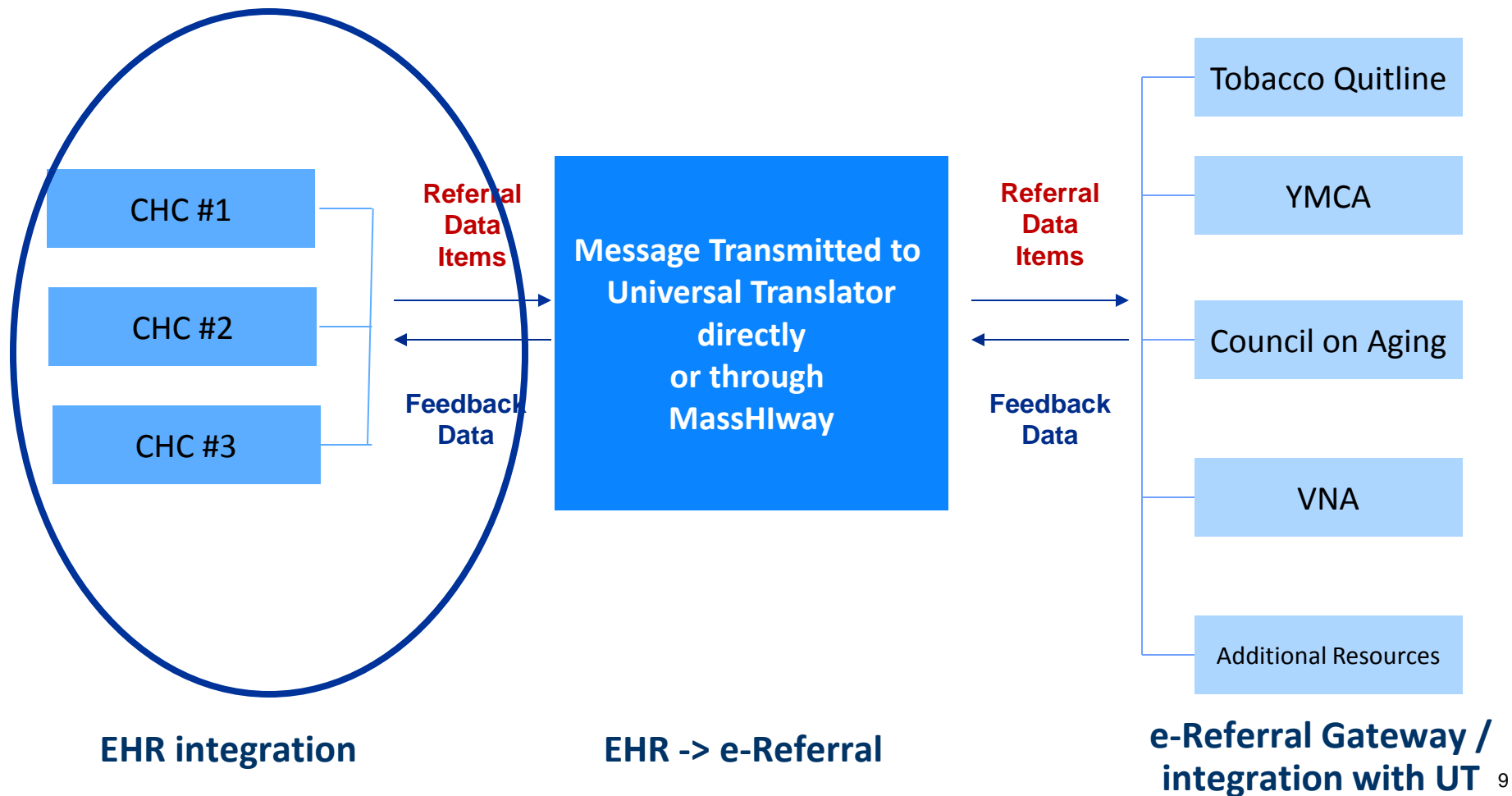
## **Manet Community Health Center**

- Partnered with South Shore Elder Services, Inc.  
Referrals: Meals on Wheels and Falls Risk Assessment





# e-Referral Connections



## 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

HH83 Referrals Order

Assessments | My Plan | A/P Details | Labs | Diagnostics | **Referrals** | Office Procedures | Cosign Orders

Insurance name: Medicare Assigned      Policy #: 123456789Q

To: **1** Specialty/specialist name/site

**2** Specialty:      **3** Provider name: Address Detail      Location:       Internal referral

Therapies  
 DME

Authorization required:  No  Yes

**Diagnosis:**

Description:

1.

2.

**Services requested:**

Consult     Evaluate and treat     Follow up

**Clinical indications:**

Reason for referral:

**Clinical information/Comments:**

**Instructions:**

Patient referral/instructions given

**Attachments:**

Continuity of Care Document/Record sent

Referrals ordered this encounter:

Code	Diagnosis	Order	Order Comments	Comments

**Ngkbn Dbp Speciality**

Description

- Allergy and Immunology
- Anesthesiology
- Blood Banking/Transfusion Medicine
- Burn Treatment Center
- Cardiac Surgery
- Cardiology - Pediatric
- Cardiothoracic Surgery
- Chiropractic Medicine
- Clinical Biochemical Genetics
- Clinical Cytogenetics
- Clinical Genetics (MD)
- Clinical Molecular Genetics
- Clinical Neurophysiology
- Clinical Psychology
- Clinical Developmental Pediatrics

Code:

Details

Add

Refresh      OK      Cancel

Edit

Save & Close      Cancel

# Initiating a referral in NextGen

Specialty:  Provider name: [Address Detail](#) Location:   Internal referral

Authorization required:  No  Yes

Code:	Description:
<input type="text" value="250.00"/>	3. <input type="text"/>
<input type="text"/>	4. <input type="text"/>

Follow-up and treat  Assume care  Surgery  Diagnostic testing

Time limit:  Timeframe:

Referral location X

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

Close

# Initiating a referral in NextGen

Specialty:  Provider name: [Address Detail](#) Location:   Internal referral

Authorization required:  No  Yes

Code:	Description:
<input type="text" value="250.00"/>	3. <input type="text"/>
<input type="text"/>	4. <input type="text"/>

Follow-up and treat  Assume care  Surgery  Diagnostic testing

Time limit:  Timeframe:

Referral location X

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

Close

# Initiating a referral in athenahealth

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

### Diagnoses and Orders Detail

#### 1. Headache


ICD-9: 784.0: Headache

Add Orders

MEALS ON WHEELS Schedule Within: provider's discretion Send To: SOUTH SHORE ELDER SERVICES INC Note to Provider: Test Internal Note: Test

#### FALL RISK ASSESSMENT

Alarm: 28 days Schedule Within: provider's discretion Send To: SOUTH SHORE ELDER SERVICES INC

 [Print](#) Assigned to nobody [CLOSED] as [task #1873847](#)

# Initiating a referral in athenahealth

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

<a href="#">view</a>	794247	PROCESSED	08/05/2014 14:40:02	OUT	001	EREFERRAL::DPH	PROCESSED: 08/05/2014 14:41:32 ▶ <a href="#">Audit Notes</a>
<a href="#">view</a>	803560	PROCESSED	08/11/2014 13:30:20	OUT	001	EREFERRAL::DPH	PROCESSED: 08/11/2014 13:32:21 ▶ <a href="#">Audit Notes</a>

Raw Message -- Webpage Dialog

**View Message #794006 (PROCESSED)**

```

MSH|^~\&|ATHENANET|4368^MA - Manet Community Health Centers|EREFERRAL::DPH|11792616^SOUTH SHORE ELDER SERVICES
PID||7|7|██████████^|19800101|F||941^Patient Declined|4 MAIN STREET^^BRIGHTON^MA^02135^UNITED STATES|| (555) 555-5555
PD1||||^|
PV1||0|6^^QUINCY MEDICAL|||^|1356319065^██████████^|566506CE4368|
IN1|1|0^^SELF PAY*|0^^SELF PAY*|^SELF PAY*|^|1|
GT1|1|██████████^|4 MAIN STREET^^BRIGHTON^MA^02135|(555) 555-5555||19800101||Self|
ORC|NW|1874371H4368|1874371H4368|||^R||20140805132256|██████████^14^Y
OBR|1|1874371H4368||MOW^Meals On Wheels^L^^|^YUNG^LILY^|^20140805132256^^R|
NTE|1|P|Test|GI
DG1|1||783.6^POLYPHAGIA^I9||20140805000000|F|
  
```

# Receiving a feedback report in athenahealth

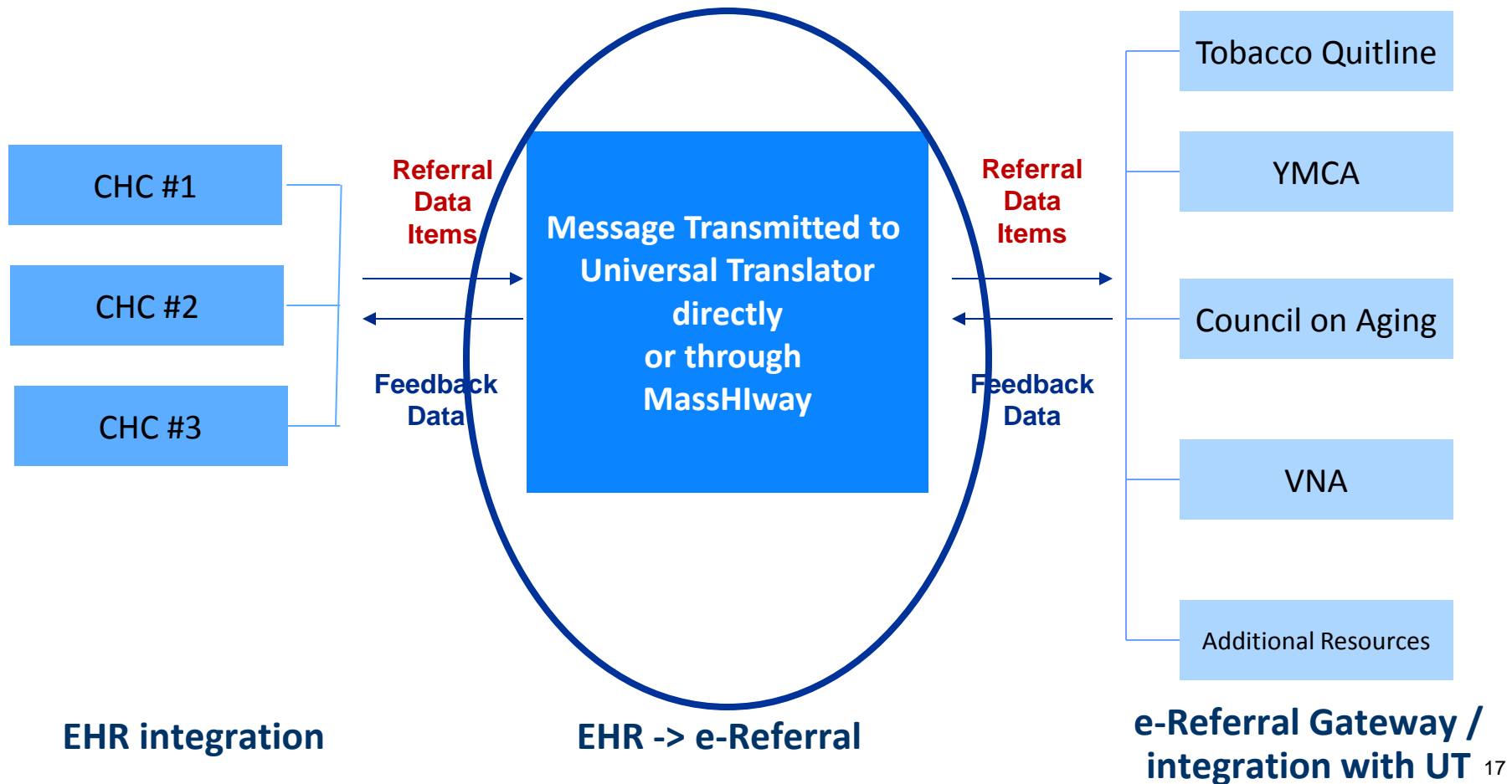
**MEALS ON WHEELS in CLOSED to nobody (created 07/25/14 3:20 PM)**

▷ [Inbound Message](#)

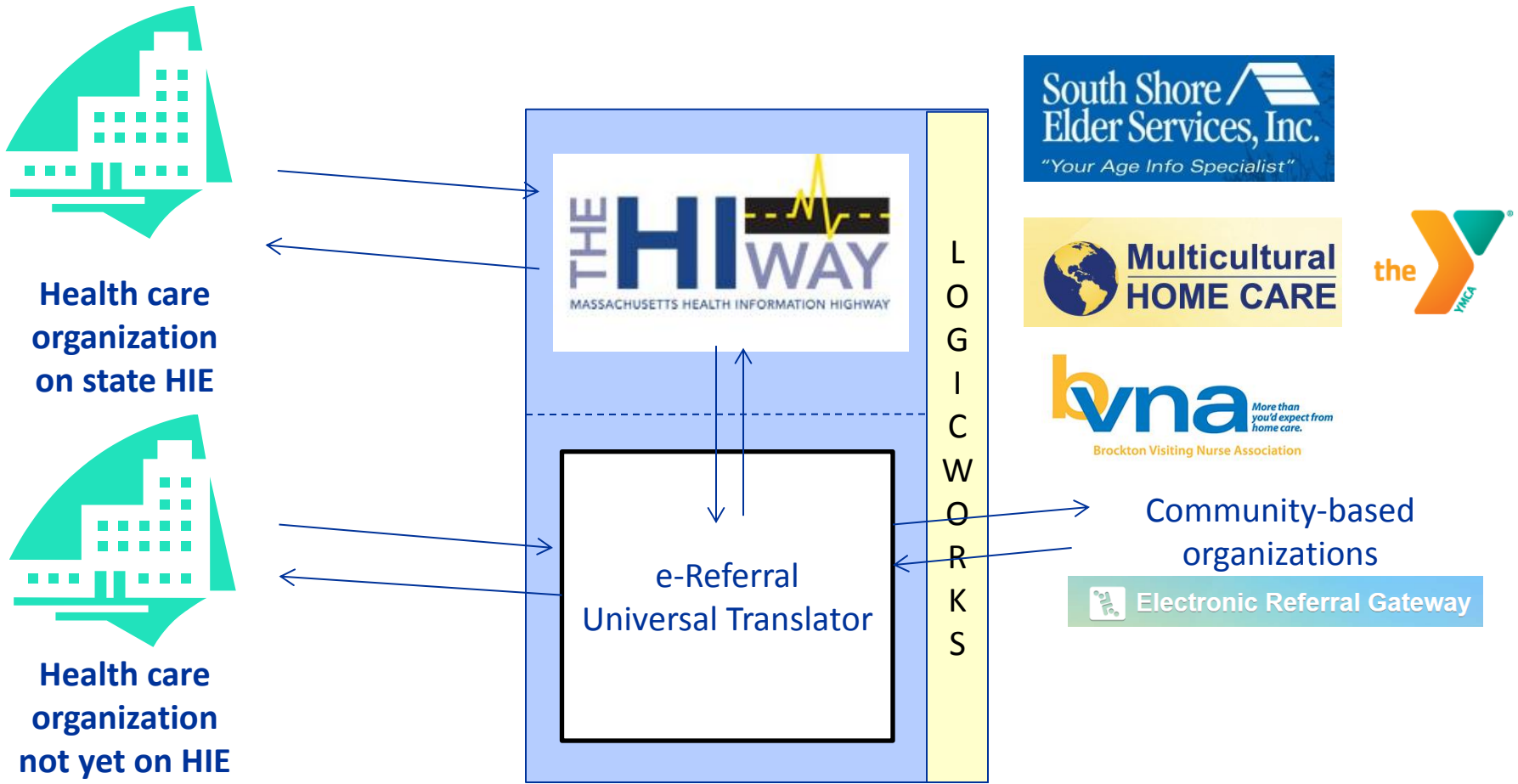
Tie to Order	<a href="#">MEALS ON WHEELS (07/24/14 asoni1 Test not offered by lab) (Tied to order #1846629)</a>
Department	NORTH QUINCY
Internal Note	<input type="text" value="US MEALS ON WHEELS"/>
Priority	<input type="checkbox"/> This task is urgent

Referral Status: Closed  
Patient Activity Status: Patient Contacted  
CBO Feedback Notes:





# Linking EHRs to e-Referral software

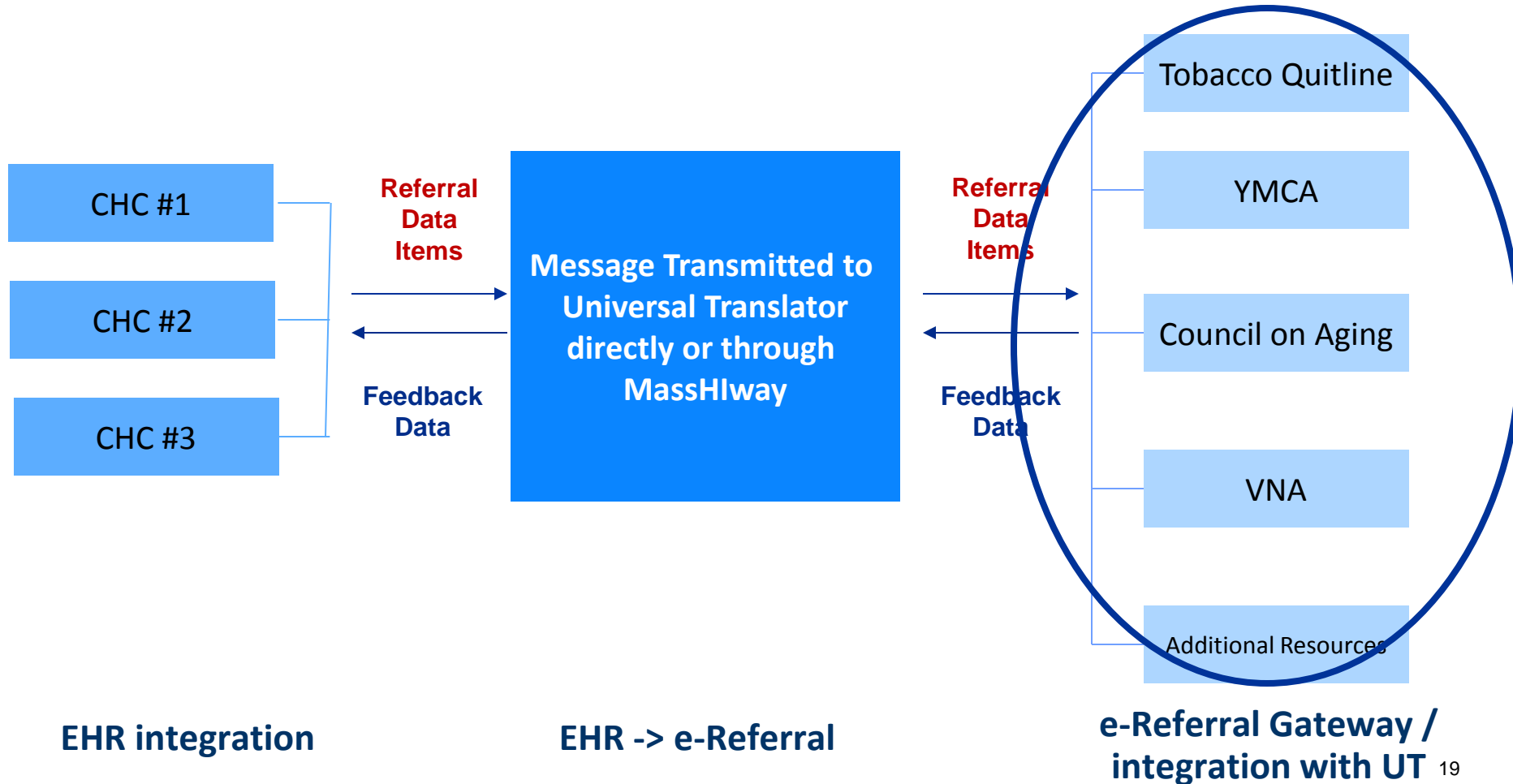


Today, health care organizations have the option of connecting through either the state health information exchange or directly through SFTP. e-Referral users are able to connect through (1) SFTP, (2) file upload/download, or (3) web services/API.

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



# e-Referral Connections



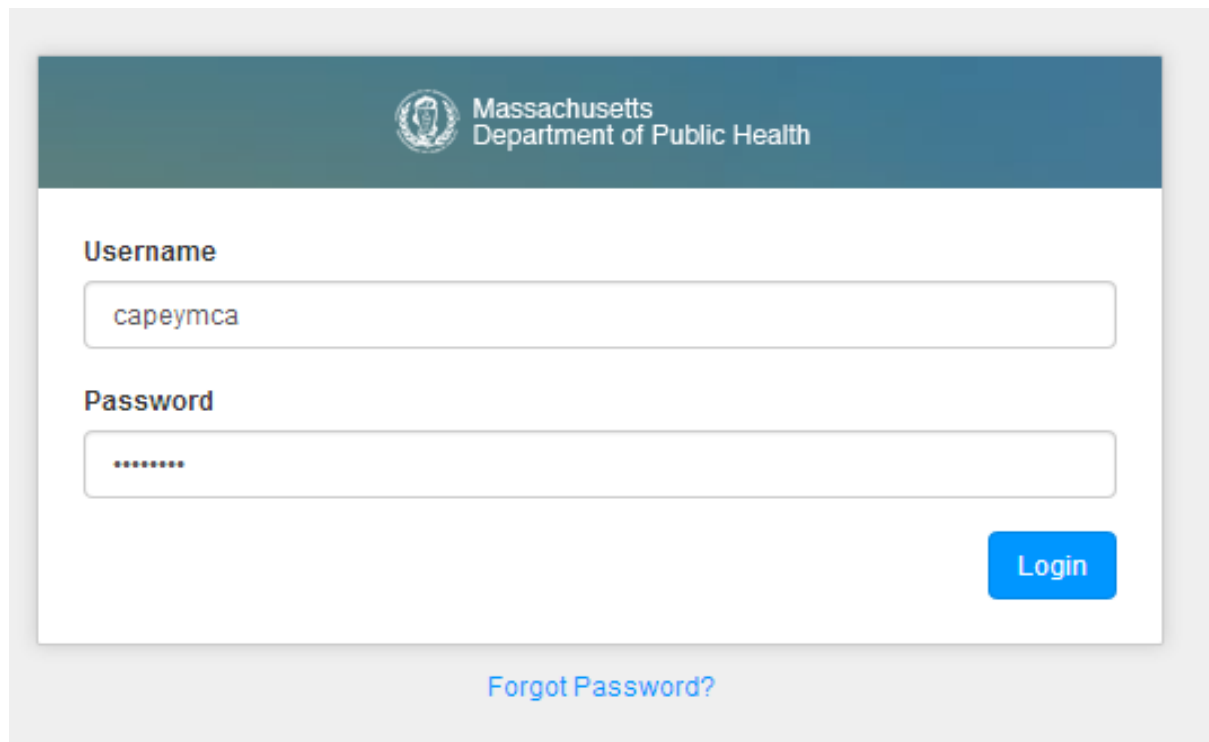
EHR integration

EHR -> e-Referral

e-Referral Gateway /  
integration with UT 19

# e-Referral Gateway

As part of e-Referral onboarding, each person managing referrals at a community-based organization will get a unique log-on and training:



The screenshot shows a login interface for the Massachusetts Department of Public Health. At the top, there is a dark teal header with the state seal and the text "Massachusetts Department of Public Health". Below the header, the form contains two input fields: "Username" with the value "capeymca" and "Password" with masked characters "\*\*\*\*\*". A blue "Login" button is positioned to the right of the password field. At the bottom of the form, there is a blue link that says "Forgot Password?".



# e-Referral Gateway Inbox



Massachusetts Department of Public Health

About Contact My Account ▾

**Electronic Referral Gateway**

Inbox (19) Sent Pending History Create New Message

[My Account](#) / [eRG](#) / [Inbox](#)

10 Records ▾  Jun 01, 2014 - Jun 30, 2014 ▾

Batch Name	Total Transactions	System Status	Sent By	Date Received	
51720140602185500	1	SDC ?	Harbor Community Health Center 735 Attucks Lane Hyannis MA,02601 (User: Karen Smith)	6/02/2014 6:55:00 PM	<a href="#">View</a>
51720140602190000	1	SDC ?	Harbor Community Health Center 735 Attucks Lane Hyannis MA,02601 (User: Karen Smith)	6/02/2014 7:00:00 PM	<a href="#">View</a>
51720140602190000	1	TBC ?	Harbor Community Health Center 735 Attucks Lane Hyannis MA,02601 (User: Karen Smith)	6/02/2014 7:00:00 PM	<a href="#">View</a>
51720140602190500	1	TBC ?	Harbor Community Health Center 735 Attucks Lane Hyannis MA,02601 (User: Karen Smith)	6/02/2014 7:05:00 PM	<a href="#">View</a>

# e-Referral Gateway Referral Detail

Massachusetts Department of Public Health Electronic Referral Gateway

About Contact My Account ▾

Inbox 3 Sent Pending 1 History Create New Referral

## Fitness Referral Transaction

**Date Submitted:** June 12, 2014 10:17:11 AM EDT  
**Batch ID:** 51720140612102000  
**Transaction Type:** Original Message  
**System Status:** SSR ?

Patient Refused Service ▾

-Select Action- ▾  
Select Action-  
Print / Save As  
View Feedback Reports  
Create Feedback Report

**Originating Organization:**

Harbor Community Health Center  
735 Attucks Lane  
Hyannis MA, 02601  
phone: 5087780300  
fax: 5087788747

**Recipient Organization:**

YMCA Cape Cod  
2245 Lyannough Rd  
West Barnstable MA, 02668  
phone: 774-251-5101  
fax: 508-362-5379

**Originating Organization Provider:**

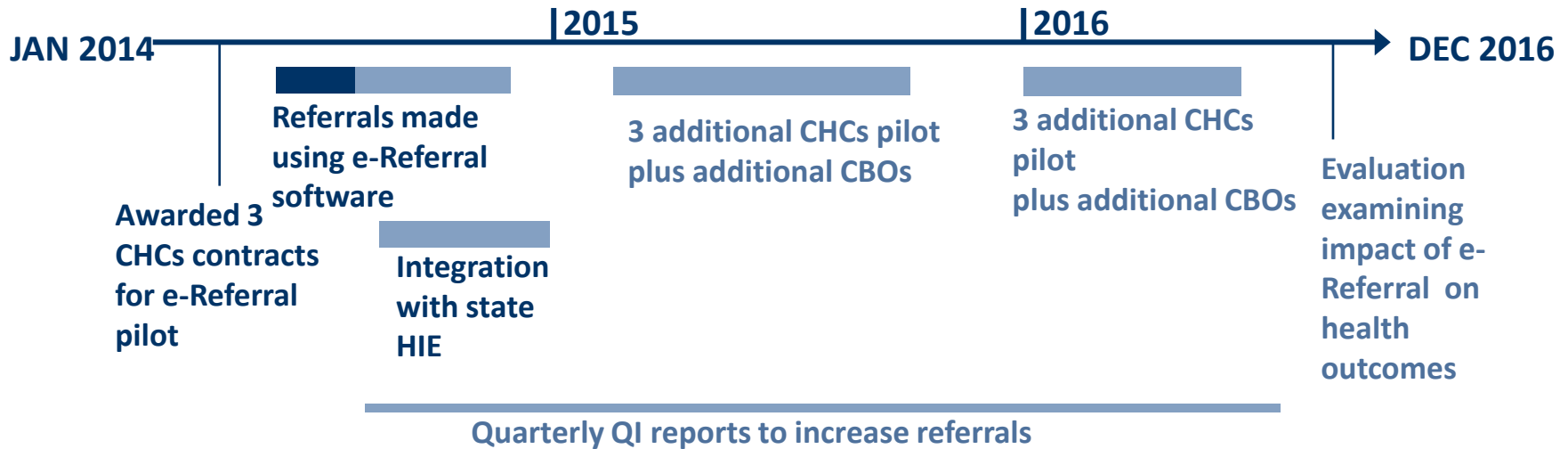
Dr. Gabrielle Smith  
Id: 123456  
735 Attucks Lane  
Hyannis MA, 02601  
phone: 508-778-0300

- **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.

- **Don't underestimate the importance of workflow:**
  - Overall workflow and developing business rules  
**CHC → CBO, CBO → 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	2014	Q2	Q3	Q4	2016
e-Referral software launch		Testing	Pilot launch	50 referrals transmitted	9 e-Referral sites

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

## 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

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Questions?