

Agenda Item Number:

**ORANGE COUNTY BOARD OF HEALTH
AGENDA ITEM SUMMARY**

Meeting Date: August 27, 2014

Agenda Item Subject: Anna the Avatar & ROI Calculator

Attachment(s): N/A

Staff or Board Member Reporting: (Guest Speaker) John Graham, PhD – UNC Institute for Public Health

Purpose: ___ Action
 ___ X Information only
 ___ Information with possible action

Summary Information:

Dr. John Graham is an Adjunct Assistant Professor at UNC Gillings School of Global Public Health and a Senior Investigator at the North Carolina Institute for Public Health. He has expertise in management consulting services including organizational assessment and design, strategic planning, project administration/management and health information technology adoption, operations, planning, and evaluation.

Dr. Graham will present about his work with 1) “Anna” the Health Education Avatar and 2) calculating Return on Investment (ROI) in public health.

Anna the Health Education Avatar is a bilingual, automated health education avatar who engages patients in “conversation” to learn about their health needs and keep them engaged. She can provide resources and ask participants questions to check their understanding of the information provided. Anna was initially piloted in Cabarrus County with WIC participants, but also focuses on family planning and community-based prevention interventions.

Recommended Action: ___ Approve
 ___ Approve & forward to Board of Commissioners for action
 ___ Approve & forward to _____
 ___ X Accept as information
 ___ Revise & schedule for future action
 ___ Other (detail):



New Tools for a the Changing World of Healthcare and Public Health

Changing World of Healthcare

- Most insurers and providers anticipate value-based payment models, including bundled payment and accountable care, will account for about two-thirds of payment by 2020, while fee-for-service pay will dwindle to about one-third of payments, according to a survey from McKesson Corp. “We're no longer at a stage where it's just idle talk,”

Proposed Medicaid Plan Goals

- “The Governor’s and the General Assembly’s shared vision of a reformed Medicaid program for North Carolina has remained consistent from the outset.”
- Goals
 - Patient-centeredness
 - Cost predictability and sustainability
 - Whole-person care

Reform Plan Elements

- DHHS intends to work with accountable care organizations (ACOs) for the coordination of physical health services for Medicaid beneficiaries.
 - “ACOs go beyond medical homes, though, by linking primary care providers with specialty care practitioners and hospitals to address the full continuum of care and by adding financial incentives for meeting quality and cost-savings goals.”
 - “ACOs must also contribute to fulfilling the aim of whole-person care. ACOs are well positioned to provide comprehensive primary care services, including coordination with dental services, attention to social and environmental needs, and mental health and substance abuse screening, brief intervention, brief treatment, and referral when specialty care is needed. They will attain better patient outcomes, and presumably savings, by paying attention to the behavioral health and lifestyle needs of their population.”
 - DHHS intends to solicit applications from ACOs by late 2014 and to make ACOs effective at the beginning of the 2015-16 fiscal year in July 2015

Shared Characteristics of ACOs

- The “healthcare continuum” extends beyond acute clinical care to include prevention, preventive health care, and disease management
- Care requires a team of partners who collaborate to provide the range of services included in the expanded continuum of healthcare
- Risks and savings are shared among the partners
- Data collection and analysis are essential to evaluate performance
- Both individual patients and the population of patients are the targets of care.

New Tools for LHDs

- ROI Guidebook: Economic Evaluation of Population Health Interventions
- Anna: An Automated, Interactive Learning Platform

ROI Guidebook

Designed to assist local health department staff assess the value of their contributions, with a particular focus on population-based prevention interventions as a partner/contractor with their community's ACO's

ROI Steps

- 1) Engaging key stakeholders in the process
- 2) Specifying the intervention
- 3) Planning the evaluation project
- 4) Identifying and measuring costs and benefits
- 5) Calculating the return on investment (ROI)
- 6) Presenting findings.

Engaging key stakeholders in the process

- Key ACO partners will determine whether the ROI measure is credible and meaningful
- Early engagement promotes evaluation transparency, enables necessary involvement, and enhances credibility of the economic evaluation

Specifying the intervention

- The intervention itself will have a material impact on every aspect of the intervention's evaluation
- LHDs are, or should be, the first-to-mind community resource with regard to the identification and selection of evidence-based strategies (EBS.)

Planning the ROI evaluation project

- Conduct a readiness assessment
- Determine scope & assumptions
- Identify project deliverables
- Identify and assign roles
- Determine the project timeline

Identifying and measuring costs

- The costs included in an ROI calculation should include any costs required to implement and pursue/manage the intervention.
- Collaborate with key partners to identify costs (e.g. direct costs, indirect costs, and intangible costs) associated with the intervention
- Develop a systematic method to collect cost-related data

Identifying and measuring benefits

- Benefits are the monetary values associated with positive outcomes of a population-based prevention intervention
- The identification/selection of benefits should draw on the intervention's logic model and the purpose statement of the ROI evaluation, which in turn are based on the interests of key stakeholders
- For the purposes of this guidebook, measures that reflect medical savings are the most likely candidates.

Calculating the return on investment (ROI)

- Tabulate costs and monetized benefits across the evaluation timeline.
- Calculate the real value of these net benefits.
- Discount the net benefits accounting for the “value of money.”
- Calculate the return on investment.

Presenting findings

- The presentation of the findings from the analysis should be made with the interests of key stakeholders in mind
- Typically, the findings are presented in the form of a “value proposition.” A value proposition is a short statement that describes the tangible results/value a decision maker can expect from implementing the intervention

Anna: Interactive Health Educator

Motivation for Developing Anna

- Health education is central to most public health clinical and outreach services
- Resources available for health education are frequently limited and grants-based
- With Pay-for-Performance, the value of prevention and health education becomes increasingly apparent to healthcare providers and policy-makers

Project History

- Develop system requirements iteratively
- Develop and test version one
- Conduct acceptability evaluation
- Make revisions & draft plans for future revisions subject to budget/time
- Develop additional applications (i.e. breastfeeding & family planning)

Benefits of Anna

- Anna is a Virtual Character that acts as a mentor for WIC participants
- Interacting with the system only requires a 4th-5th grade reading level.
- She has a personality and can teach patients by sharing her perspective

Anna Demo

Provider Experience

WIC Administration Portal x

test.engineeredcare.com/WIC/EducationSession/List

WIC Administration Portal EngineeredCare

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All Encounters

Find an Encounter

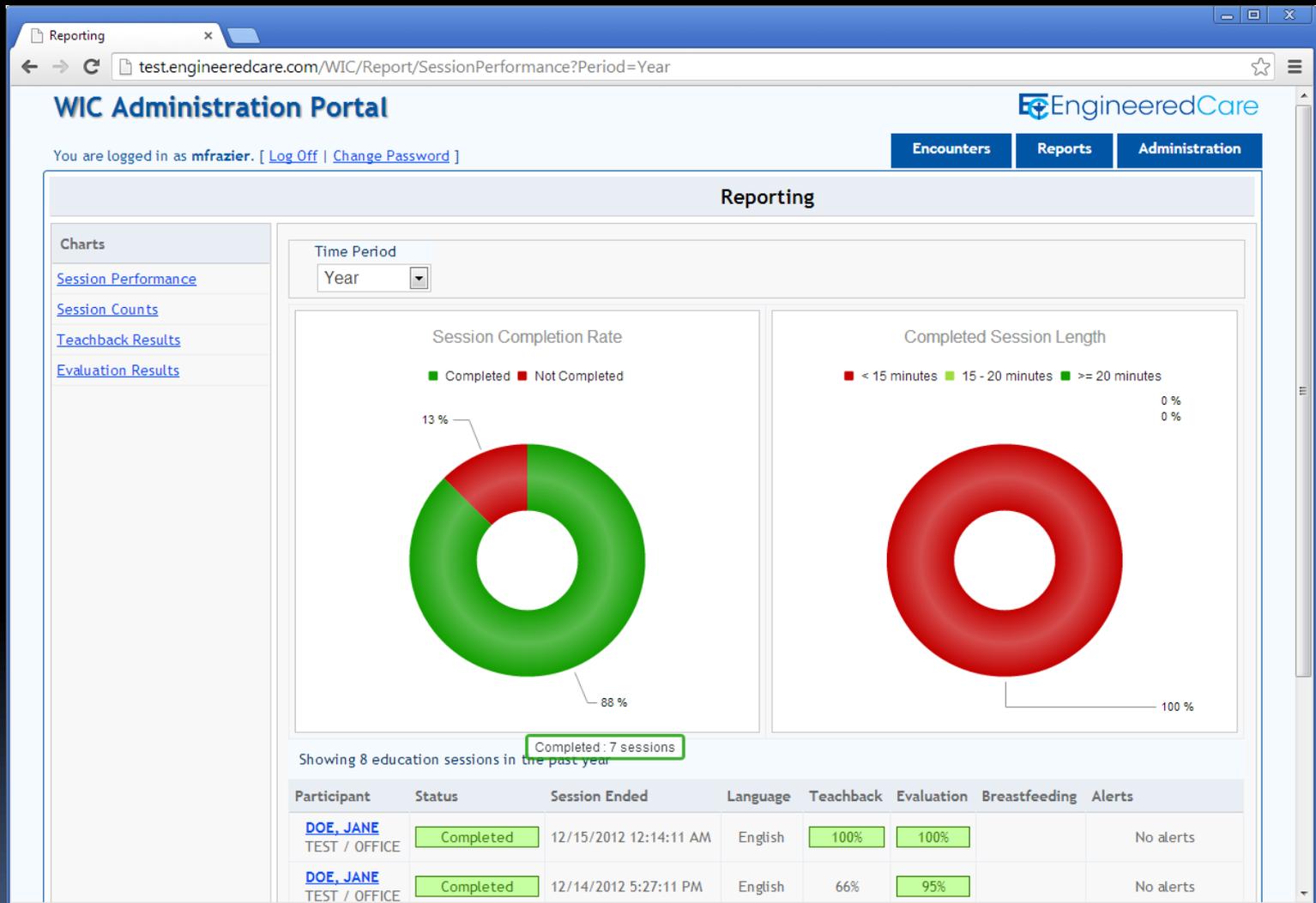
Location: Machine: Status: Alerts:

Enter Participant Name, ID, or SS:

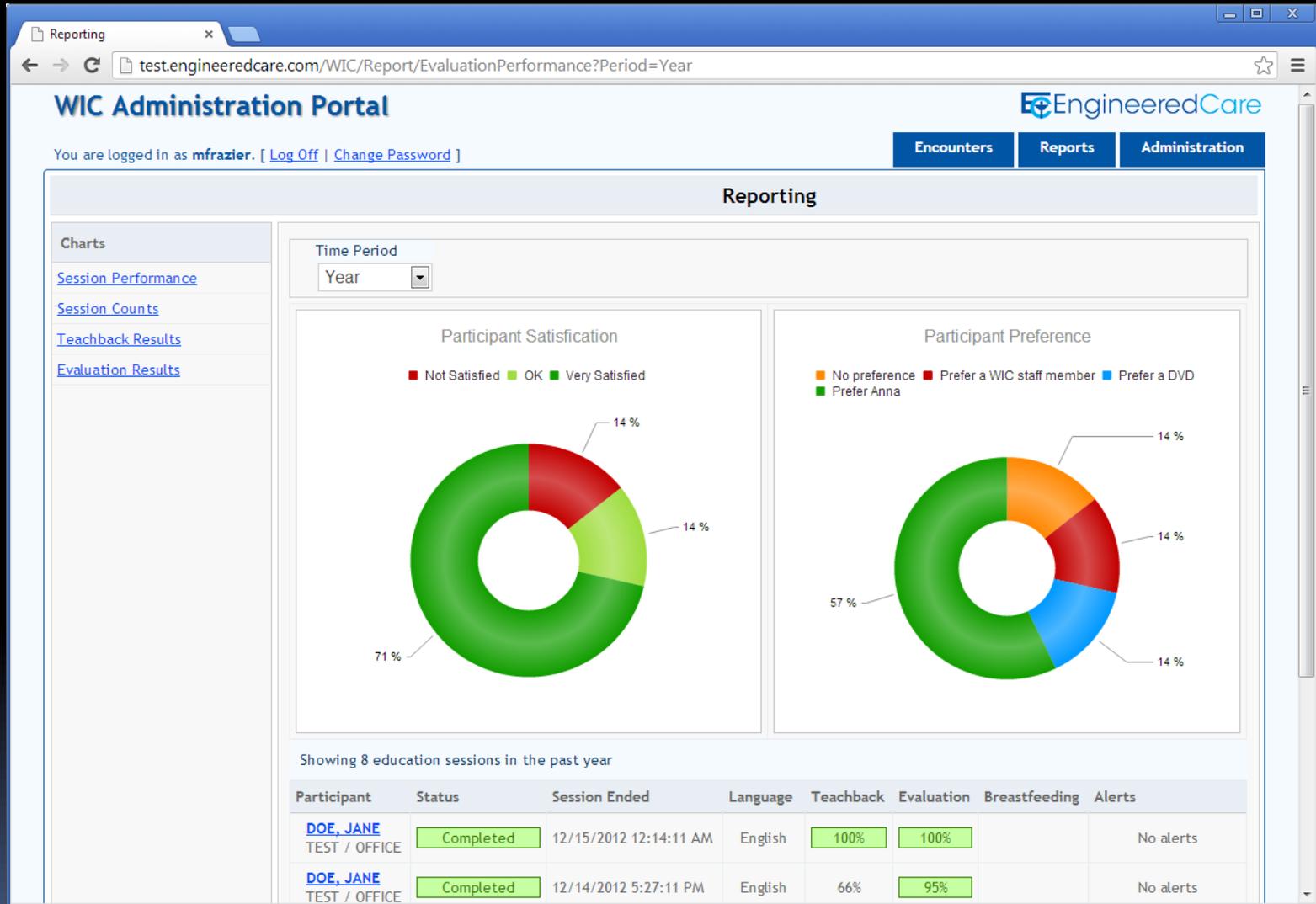
Participant	Status	Session Ended	Language	Teachback	Evaluation	Breastfeeding	Alerts
DOE, JANE TEST / OFFICE	Completed	12/15/2012 12:14:11 AM	English	100%	100%		No alerts
DOE, JANE TEST / OFFICE	Completed	12/14/2012 5:27:11 PM	English	66%	95%		No alerts
DOE, JANE TEST / OFFICE	Completed	12/14/2012 4:57:21 PM	Spanish	66%	65%	Partially	Resolved alerts (2)
DOE, JANE TEST / OFFICE	Not Completed	12/14/2012 4:55:05 PM	Spanish	100%			No alerts
DOE, JANE TEST / OFFICE	Completed	12/14/2012 4:54:42 PM	English	80%	95%	Yes	No alerts

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Provider Experience



Provider Experience



Provider Experience

WIC Administration Portal EngineeredCare

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DOE, JANE

TEST OFFICE 12/15/2012 12:14:11 AM Duration: 1 min English **Completed**

Participant

- [Identification](#)
- [Summary](#)
- [Alerts](#)
- [Information](#)
- **Teachback**
- [Responses](#)

Education Session

Session Teachback Results

Question	Response	Result	Idle
Food instrument expiration date?	July 21	CORRECT	1 sec
WIC provides all of your food?	False	CORRECT	4 sec
Food instrument lists specific foods, cash value coucher gives dollar amount.	True	CORRECT	3 sec
All stores accept WIC.	False	CORRECT	1 sec
Where can you find the foods you can shop for?	Both A and B	CORRECT	2 sec
Who should you call when you have questions?	The WIC Office	CORRECT	2 sec

Anna Evaluation Comments

- “This was better than face-to-face cause I have a tendency to zone out when someone talks to me.”
- “I liked how she went through the grocery list and food instrument and there was a picture of it on the screen.”
- “Was better than a DVD.”
- “That was cool.”
- “Thank you for making this.”

Anna Sustainability

- Leverage cost-effective platform
- Enhance LHD staff productivity
- Coordinate with NC WIC Office
- Initiate a possible subscription service at LHD or State level