VistA Customization, Configuration and Content: A Collaborative Approach

Stephen L. Oxley, MD Chief Medical Officer Central Regional Hospital Butner, NC

VistA Community Meeting UC Davis Sacramento, CA Jan.17, 2015

#### The Golden Pair

"A VISTA project requires the Golden Pair to succeed - so decisions about direction are made by programmers and the medical professionals who will use the software, working together as a team to explore what's possible and useful." Rick Marshall

#### Medscape Physician Survey

	1 = Poor	5 = Excellent	
Amazing Charts	4.22	Centricity	3.20
Practice Fusion	4.04	Cerner	3.15
VA-CPRS	3.89	Greenway	3.04
Medent	3.65	Allscripts	3.00
e-MDs	3.56	MEDITECH	2.94
Epic	3.51	Practice Partner	2.91
athenahealth	3.44	McKesson	2.91
eClinicalWorks	3.36	NextGen	2.81
Sage	3.22		

21,202 respondents across 25 specialties Data collected by Medscape from May 30 to June 15, 2012 The "Golden Pair" concept applies to new program development, but also to any modification of VistA that impacts on the medical professional users experience.

### Customization

VistA program code changes to meet unique needs of an organization

Interfacing VistA to other information systems

# Configuration

#### Does not involve programming

#### Does involve:

setting options

□setting parameters

entering users

entering lab test and drug information

Setting up Notifications

□and more

### Content

#### Documentation templates

Orders and order set parameters

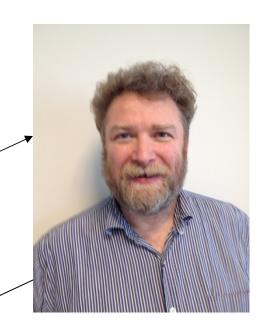
 Clinical decision support, such as Clinical Reminders

### Collaboration

- Customization, configuration and content development all impact the end-user's experience with VistA
- Whenever possible, these changes should be done as a reiterative team effort with key end-users

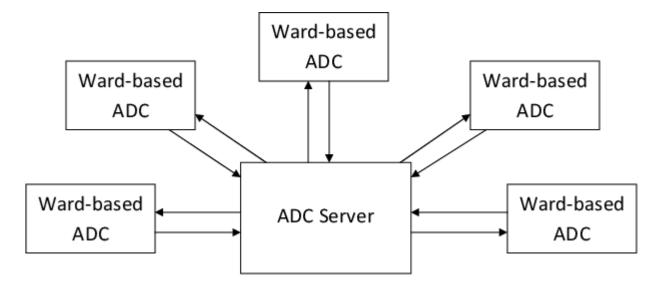
### **Customization Collaboration**

David Whitten has worked intensively with our Pharmacy Informatics group to customize the interface to Pharmacy technology

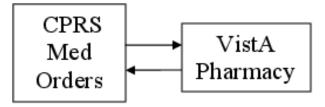


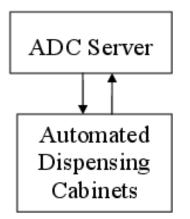


CRH uses <u>A</u>utomated <u>D</u>ispensing <u>C</u>abinets for medication storage and distribution at the hospital ward level



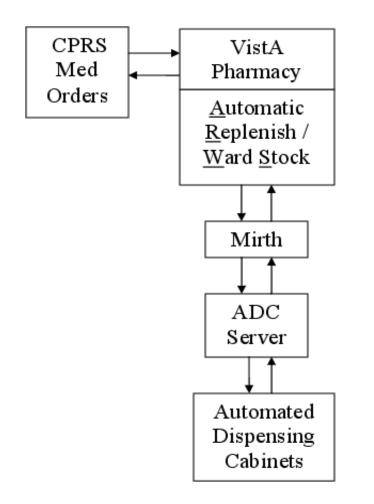
The ADC Server holds each patient's medication profile and also tracks what medications are stocked in which cabinet and which drawer within the cabinet





The Pharmacist processing med orders in VistA Pharmacy needed to know if a medication was stocked in the ADC on the patient's ward.

The ADC Server needed to update a patient's medication profile when an order was entered or discontinued.



We leveraged the ARWS module in VistA to map the cabinets information for VistA Pharmacy.

We employed the opensource HL-7 interface engine, MIRTH, to facilitate the communication between VistA Pharmacy and the ADC Server

### **Customization Collaboration**



Joe Thurber worked with the Nursing Informatics group to customize BCMA



## **BCMA** Customization

- NCID sign-on
- Fractional dose management
- Witness for high risk medications
- Response to routine pain meds
- Patient pictures
- First dose patient education

# **Customization Collaboration**

Joe Thurber collaborated with physicians and social workers in making modifications to CPRS. Marci Keiser served as an intermediary and project manager



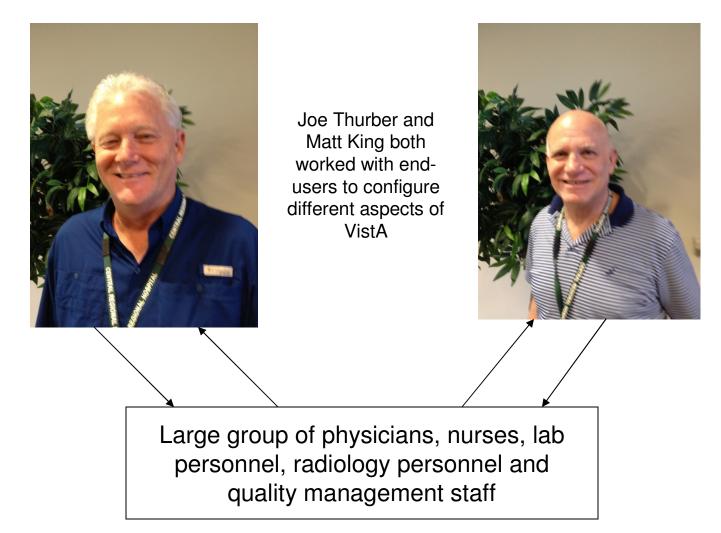
### Added Primary Contact

VistA CPRS in use by: Oxley,Stephen L - e Edit View Tools Help	CRH PRODUCTION ENVIRONMENT				
ZZGERO, MALE (INPATIENT)	ZZT ZZ14-01	Primary Care Team Un	assigned		Posting
	Provider: OXLEY,STEPHEN L	Attending: Thurber, Jos	2	Flag F	Primary Contact 👸 🛛 🗰
		CRH PRODUCTION			
ctive Problems	Allergies / Adverse Reactions			Postings	
Schizophrenia Dysuria (ICD-9-CM 788.1) Risk Or Hx Of Fall Dysphagia Nos Simple Schizophren-Chr Insomnia, Unspecified Dementia Nos	Beta Blockers/Related Shell Fish Penicillin			Allergies B-Alert Advance [	Jan 01,2013 Directive Nov 14,2012
tive Medications	Clinical Remin	ders E	)ue Date		
ozapine Odt Tab,Rapid Disintegrate	AIMS	GRESS NOTE REVIEW P INITIAL ANNUAL cine	Dec 03,13 DUE NOW Nov 16,13 DUE NOW		
ecent Lab Results	Vitals			Appointments/Visits	
o Orders Found.	R 20 Mar	13,2013 11:20	ORAL SPONTANEOUS, SITTING R ARM, SITTING, CUFF, ADULT	Sep 23,2013 12:22 Jul 31,2013 16:09 Jun 25,2012 10:59	Inpatient Stay Zztestward Sau Evaluation/Fea Actio Inpatient Stay Zztestward
1	Notes   Consults   D/C Summ   Labs	s Reports			
Cover Sheet Problems Meds Orders					·

#### Added Primary Contact

Pile       Edit View Tools Help         ZZGERO,MALE (INPATIENT) 3344132       Nov 18,1932 (81)         Patient Name       ZZGERO,MALE         MRN       3344132         Active Problems       A         Schizophrenia       Patient Unable or Unwilling To Provide Contact Information         Patient Unable or Unwilling To Provide Contact Information       Postings         Active Problems       A         Schizophrenia       Patient Unable or Unwilling To Provide Contact Information         Name       Test, Samuel         Active Archite Main       IS Test Ave         Apprimate Nos       City         Simple Schizophren-Chr       Insomnia, Unspecified         Dementia Nos       City         State       NORTH CAROLINA         State       NORTH CAROLINA
ZZGERO.MALE (INPATIENT)       3344132       Nov 18,1932 (81)       Find Primary Contact       Posting         Active Problems       A       Patient Name       ZZGERO,MALE       MRN       3344132       Find Primary Contact       WAD         Active Problems       A       Patient Unable or Unwilling To Provide Contact Information       Posting       Posting         Name       Test, Samuel       Patient Unable or Unwilling To Provide Contact Information       Posting         Name       Test, Samuel       Altergies       B-Alert       Jan 01,2013         Address Line 1       15 Test Ave       Address Line 2       Nov 14,2012       Nov 14,2012         Active Medications       State       NORTH CAROLINA       Image: State       NORTH CAROLINA       Image: State
Active Problems       A         Schizophrenia       F         Dysuria (ICD-9-CM 788.1)       F         Risk Or Hx Of Fall       Address Line 1         Dysphagia Nos       Address Line 2         Insomnia, Unspecified       City Tville         Active Medications       State         NorTH CAROLINA       State
Clozapine Odt Lab, Hapid Disintegrate Zip 22243 Date Contact Established Mar 25,2013 Home Phone 87878787 Mobile Phone 343433 Second Primary Contact Comments No comment Relationship to Patient Primary Contact Is Also Guardian Voluntary/Involuntary Social Worker
Recent Lab Results       Image: Control of Life Instrument Exists In Paper Chart       Intents/Visits/Admissions         No Orders Found.       Patient County of Responsibility County PITT       3,2013 12:22 2013 16:09       Inpatient Stay Zztestward Sau Evaluation/Fea Action 
Cover Sheet Problems Meds Orders News Cover Sheet Problems Meds Orders

#### **Configuration Collaboration**



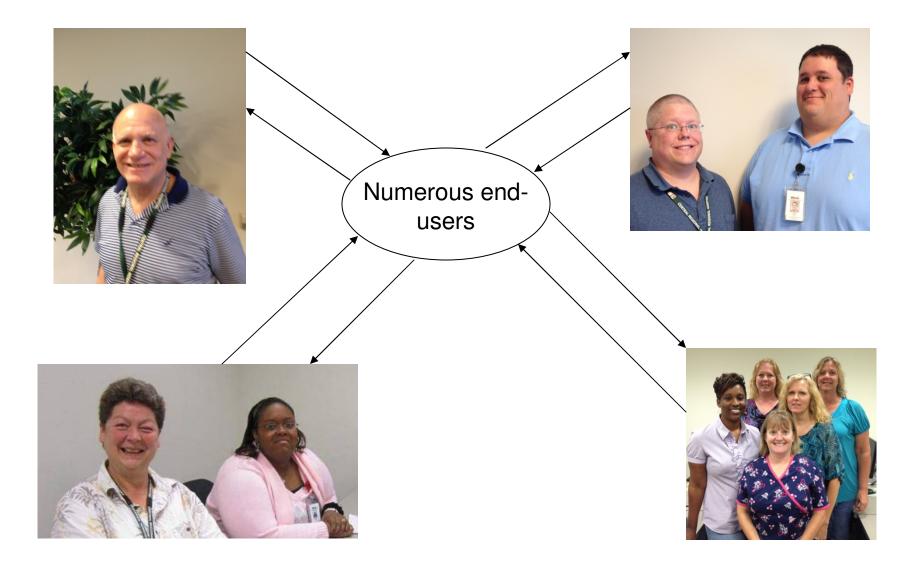
## **Configuration Collaboration**

Notifications
Postings
Order tab options

#### **Content Collaboration**



#### **Content Collaboration**



### **Content Collaboration**

- Documentation templates
- Order sets
- Ordering guidance
- Clinical Reminders
- Transfer summaries
- Discharge Summary format and content

#### Questions?

#### Contact: stephen.oxley@dhhs.nc.gov