



Using EHRs to Improve Cascades in Primary Care Settings

Benjamin Young, MD PhD

International Association of Providers of AIDS Care, Washington DC
Josef Korbel School of International Studies, University of Denver

OVERVIEW



- “ Cascades
- “ Electronic Health Records and HIV
- “ Overview of the Alliance of Chicago
- “ HIV EHRs
- “ Preview of future HER plans

CASCADES





ON
RE

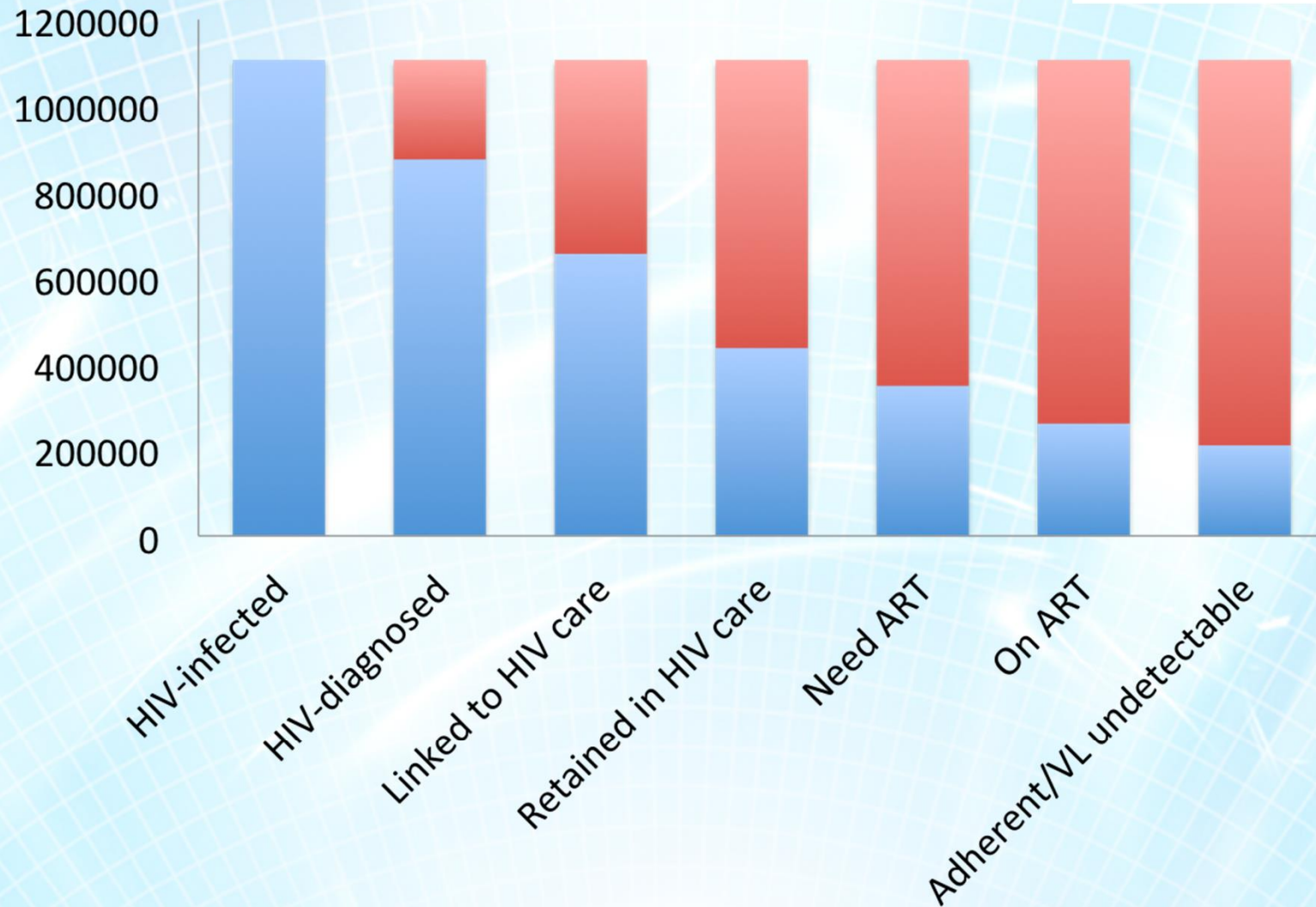


IAFAC
INTERNATIONAL ASSOCIATION
OF PROVIDERS OF AIDS CARE

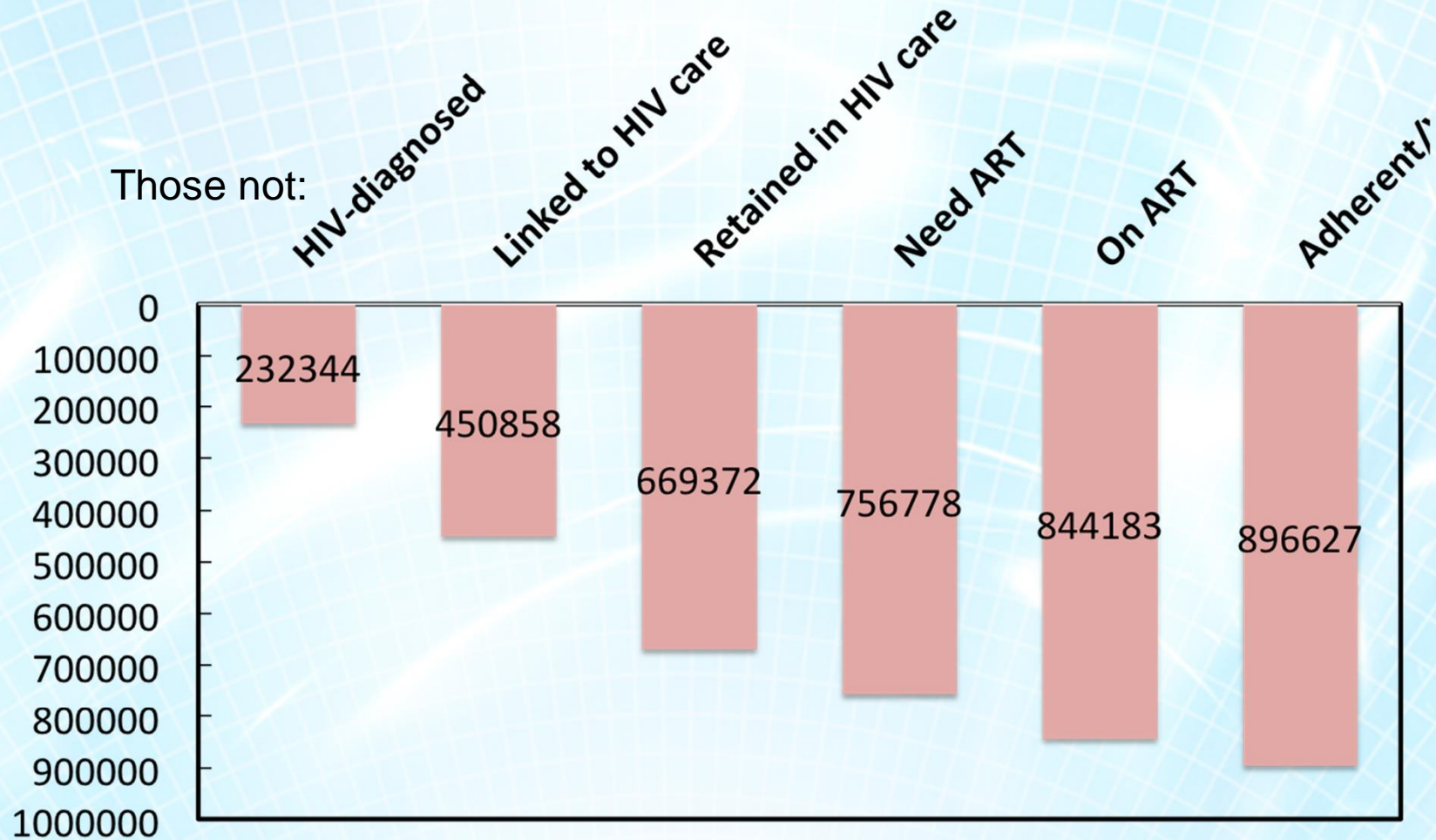


CASCADES: ENGAGEMENT IN CARE

Engagement in HIV Care and Treatment :USA



Refocusing Engagement in Care and Treatment



ELECTRONIC HEALTH RECORDS AND HIV CARE

RECOMMENDATIONS FOR ADVANCING ENGAGEMENT IN CARE



Table 1. Recommendations for Advancing the Science and Practice of Engagement in care by Patients Infected with Human Immunodeficiency Virus (HIV)

Domain	Recommendation(s)
Surveillance/evaluation	Develop integrated health informatics systems to collect real-time, actionable, patient-level surveillance of HIV testing and engagement in care activities at both local and national levels. Standardize national quality benchmarks for linkage and retention in care and hold agencies that provide HIV testing, prevention, treatment, and supportive service accountable for meeting minimum standards.
Information/education	Deploy educational and social marketing campaigns aimed at emphasizing the importance of
Res	Allocation of federal HIV funds for dissemination and implementation of cost-effective, integrated TLC+ programs.
TLC+ service delivery	Coordinate activities from funding agencies and service delivery organizations that provide HIV testing, prevention, medical and supportive services to facilitate integrated TLC+ programs. Develop additional evidence-based individual- and systems-level interventions to improve linkage and retention in HIV care. Cost-effectiveness, dissemination, and implementation studies are notably lacking and are imperative to inform policy and practice decisions.

Develop integrated health informatics systems to collect real-time, actionable, patient-level surveillance of HIV testing and engagement in care activities

HIV Engagement: System and Policy Factors • CID 2011:52 (Suppl 2) • S243



The NEW ENGLAND JOURNAL of MEDICINE



HOME HOME ARTICLES & MULTIMEDIA ▾ ISSUES ▾ SPECIALTIES & TOPICS ▾ FOR AUTHORS ▾

SPECIAL SPECIAL ARTICLE

Electronic Health Records and Quality of Diabetes Care

Randall D. Cebul, M.D., Thomas E. Love, Ph.D., Anil K. Jain, M.D., and Christopher J. Hebert, M.D.
N Engl J Med 2011; 365:825-833 | September 1, 2011 | DOI: 10.1056/NEJMsa1102519

- “ Estimates of differences between EHR- and paper-based practices for 27,207 adults in 46 clinics.
- “ Composite standards:
 - diabetes care 35.1% higher at EHR sites ($P < 0.001$)
 - Outcomes 15.2% higher at EHR sites ($P < 0.005$)
- “ Use of EHRs may improve quality of care

Implementation of Provider-Based Electronic Medical Records and Improvement of the Quality of Data in a Large HIV Program in Sub-Saharan Africa

Barbara Castelnuovo^{1*}, Agnes Kiragga^{1,2}, Victor Afayo¹, Malisa Ncube¹, Richard Orama¹, Stephen Magero¹, Peter Okwi¹, Yukari C. Manabe^{1,2}, Andrew Kambugu¹

¹ Infectious Diseases Institute, Makerere College of Health Sciences, Kampala, Uganda, ² Division of Infectious Diseases, Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, Maryland, United States of America

- “ Urban HIV outpt facility in Kampala, Uganda, implemented EMR
- “ Compared 2,383 visits (from 100 pts; paper) to 34,957 visits (from 10,920 pts, EMR)
- “ Decreased proportion of reporting errors from:
 - “ OIs 66% to 2%
 - “ ART toxicity 52% to 3.5%
 - “ Reasons for ART interruption 83% to 12.5%
 - “ Reasons for ART switch 94% to 0.9%
- “ EMR well accepted by providers

EMR AND HIV HEALTH CARE



- “ Meta-analysis of EMR-clinical decision support
 - . 12 studies (10 SSA, 2 Carribean)
 - “ Improved ordering rates for CD4
 - “ Reductions in data errors, missed appointments
 - “ Reduction in missed CD4 results and patient wait time
 - “ Increased time spent in direct pt care
 - . Barriers: technical infrastructure, power cuts, connectivity, computer literacy
 - . High quality evaluations needed



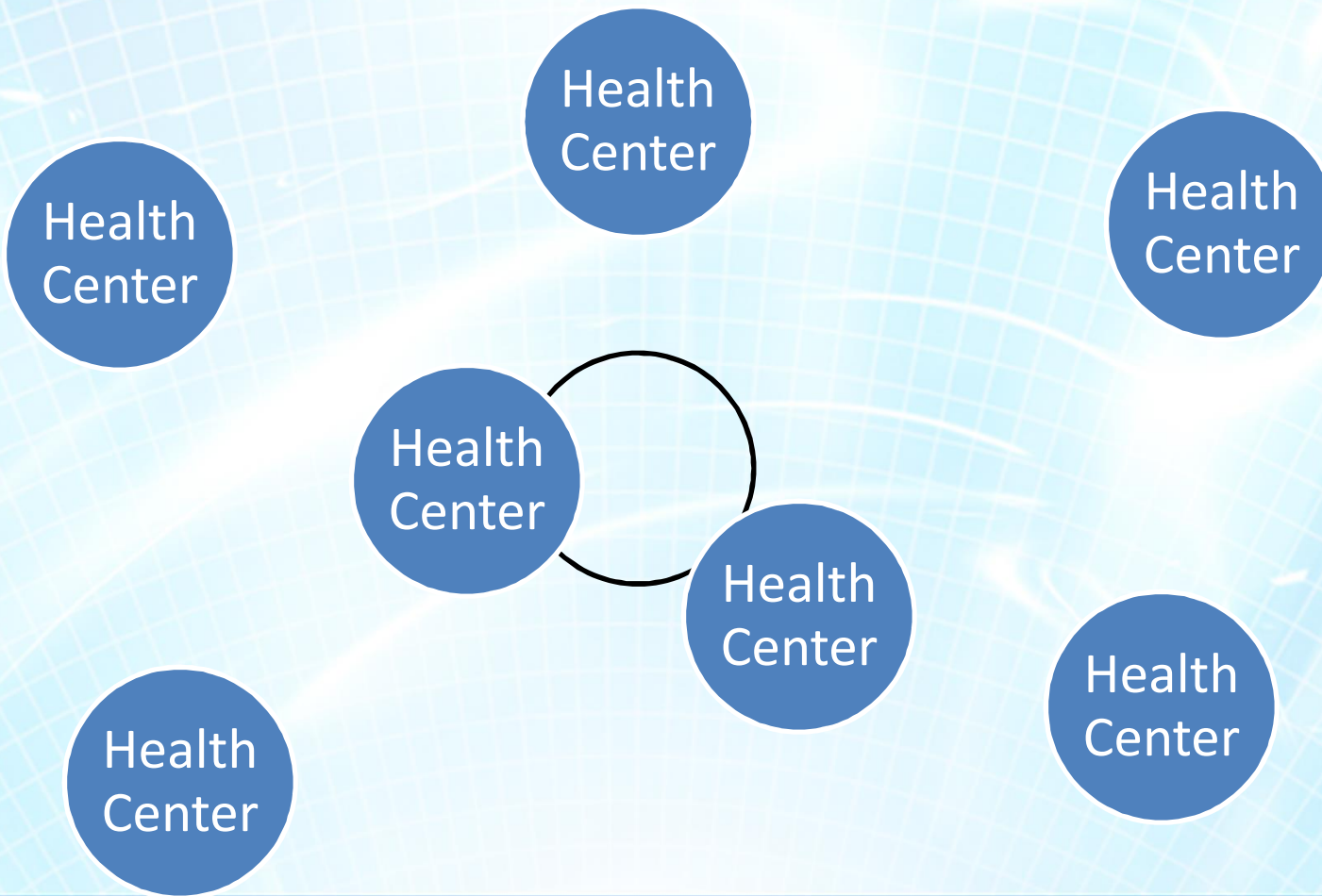
PARTNERSHIPS



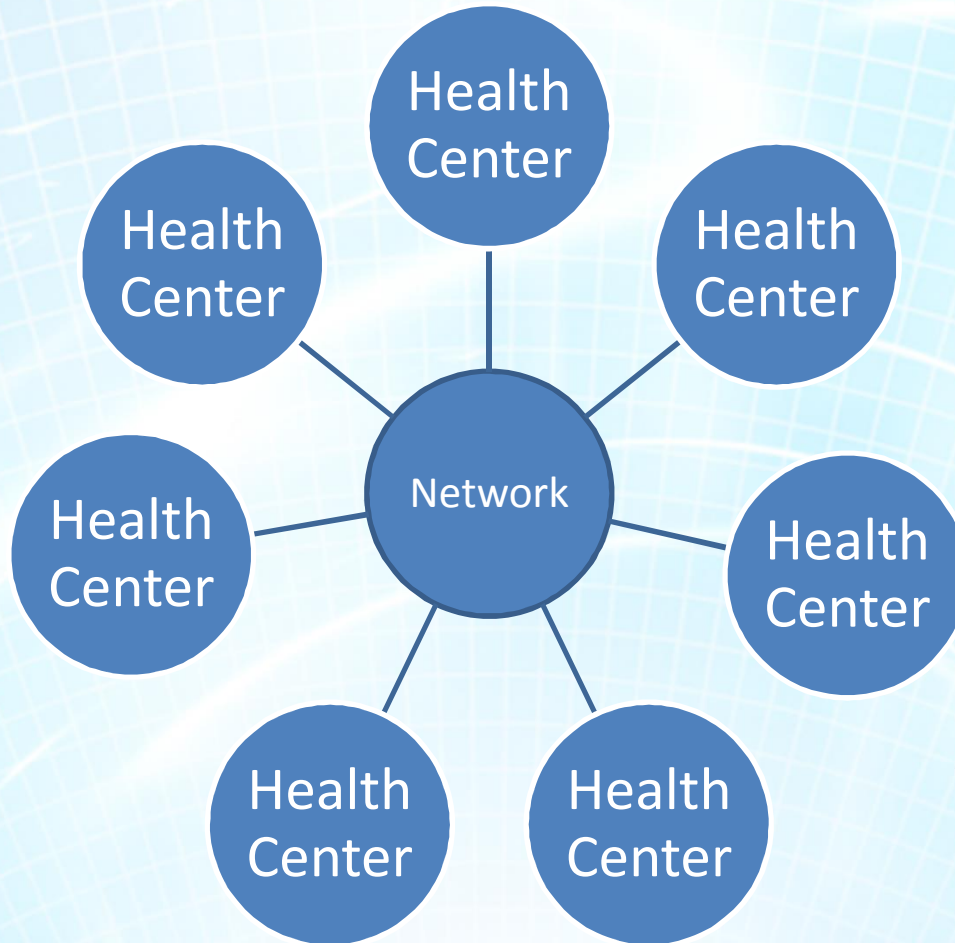
HISTORY AND MISSION OF COMMUNITY HEALTH CENTERS

- “ First funded by the Federal Government as part of the War on Poverty in the mid-1960s.
- “ Designed to provide accessible, affordable personal health care services for people living in medically underserved communities
- “ Mission encompasses quality, access, and responsiveness to particular needs of the community served.
- “ Typical services include primary care (Including Pediatrics, Internal Medicine, OB/GYN, and Family Practice), dental, behavioral health, nutrition, case management and health education.

HEALTH CENTERS WORKING INDEPENDENTLY



A LEARNING COMMUNITY

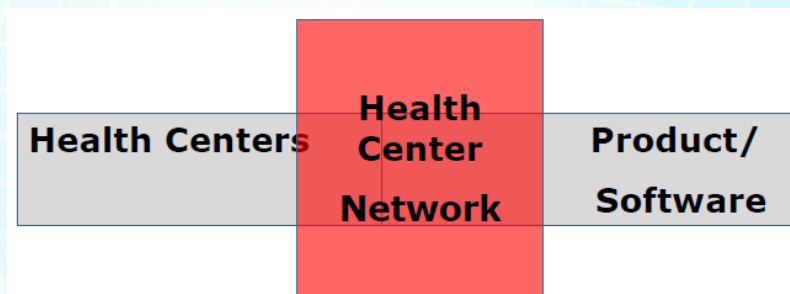


CHC HEALTH INFORMATION NETWORKS



- ” Consortia of multiple health centers supported by HRSA
- ” Collaborate, share, and/or integrate key functions core operations such as clinical, fiscal, IT, managed care, and administration

UNIQUE ROLE OF HEALTH CENTER NETWORKS



- “ Improve health outcomes and support quality care through:
 - Development and adoption of electronic health record systems
 - Track quality measurement
- “ Integrate clinical decision making and performance measures into a commercial EMR
- “ Research and evaluation

INTEGRATION OF HIV CARE INTO PRIMARY CARE SETTINGS: LESSONS LEARNED

- “ Enables health system to test more, initiate more ART, reduce loss-to-follow-up and achieve greater geographic coverage.
 - . Pfeiffer, et al., JAIDS, 2010 (Mozambique)
- “ May improve treatment outcomes by integrating evidence-based interventions for co-morbid mental health, substance use and neurocognitive disorders.
 - . Eustache, et al., PLOS Medicine, 2013

HIV MONITORING



Prev Care 1	Prev Care 2	Info	Geno Pheno	Meds Mgmt	Ols	History	Ed / Retention
HIV Management - Preventive Care Review						<i>high risk for loss to care</i>	add all to note
Type of Screening	Last Screening	Protocol	Recommendation	Today/Excl	add		
CD4 Count	CD4: 506 /UL (01/11/2012)	Every 4 months	Due	Add CD4	<input type="checkbox"/>		
CD4 Percentile	CD4 %ile: 31.6 (01/11/2012)	Every 4 months	Due	Add CD4 %ile	<input type="checkbox"/>		
Viral Load	VL: <75 copies/mL (01/11/2012)	Every 4 months	Due	Add Viral Load	<input type="checkbox"/>		
CBC with Differential	WBC: 4.7 X10E3/UL (01/11/2012) Hgb: 14.2 (01/11/2012) Hct: 40.4 (01/11/2012) Plt: 234 X10E3/UL (01/11/2012)	Every 4 months	Due	Add CBC	<input type="checkbox"/>		
Comprehensive Metabolic Panel	Na: 139 (01/11/2012) K: 3.7 (01/11/2012) BUN: 14 (01/11/2012) Creat: 0.87 (01/11/2012)	Every 4 months	Due	Add CMP	<input type="checkbox"/>		
Lipid Panel	Chol: 222 (01/11/2012) HDL: 45 (01/11/2012) LDL: 129 (01/11/2012) Trig: 241 (01/11/2012)	Yearly	Protocol Satisfied	Add Lipid Panel	<input type="checkbox"/>		
Tuberculosis Screening	PPD Ind: 0 mm (06/08/2009) PPD Int: Negative (06/08/2009) TB Quant: Negative (10/19/2011)	PPD result yearly OR TB Quantitative yearly	Protocol Satisfied	Add PPD Add TB Quant	<input type="checkbox"/>		
Gonorrhea	Gon: Negative (08/27/2011 9:10:00 AM)	Yearly	Due	Add Gonorrhea	<input type="checkbox"/>		
Chlamydia	Chlam: Negative (08/27/2011 9:10:00 AM)	Yearly	Due	Add Chlamydia	<input type="checkbox"/>		
Syphilis (RPR)	Syp: Non Reactive (08/27/2011 9:10:00 AM)	Yearly	Due	Add Syphilis	<input type="checkbox"/>		
References: DHHS Guidelines - Adults/Adol DHHS Guidelines - Peds hivguidelines.org (NY Dept of Health): Primary Care Approach							
v3.00 - version date: 07/30/2012				Alliance of Chicago Community Health Services, L3C			

MONITORING (CONTINUED)



Prev Care 1	Prev Care 2	Info	Geno Pheno	Meds Mgmt	Ols	History	Ed / Retention	
HIV Management - Preventive Care Review		<i>high risk for loss to care</i>					add all to note	
Type of Screening	Last Screening	Protocol	Recommendation	Today/Excl	add			
Pneumococcal Vaccine	#1: 05/21/2007 B: Excl:	Two doses (#1 & booster) OR exclusion yearly	Due	<input type="text"/> Add Pneumovax	<input type="checkbox"/>			
Influenza Vaccine	#1: given (11/30/2010) #2: given (10/19/2011) Excl:	Vaccine yearly OR exclusion yearly	Protocol Satisfied	<input type="text"/> Add Influenza	<input type="checkbox"/>			
Hepatitis A	Ab: Positive (07/28/2010) #1: #2: Excl:	Hep A total antibody once OR Hep A vaccine #1 & #2 OR exclusion yearly	Protocol Satisfied	<input type="text"/> Add Hep A Ab Add Hep A Vacc	<input type="checkbox"/>			
Hepatitis B	Ab: 9.95 (07/28/2010) #1: #2: #3: Excl:	Hep B antibody yearly OR Hep B vaccine #1, #2, & #3 OR exclusion yearly	Due	<input type="text"/> Add Hep B Ab Add Hep B Vacc	<input type="checkbox"/>			
Hepatitis C	HCAb: Negative (02/09/2007) Excl:	Hep C antibody yearly OR exclusion yearly	Due	<input type="text"/> Add Hep C Ab	<input type="checkbox"/>			
Toxoplasmosis	Toxo IgG: Negative (02/09/2007 9:17:44 AM)	Once	Protocol Satisfied	<input type="text"/> Add Toxo IgG	<input type="checkbox"/>			
Anal Pap Smear	Anal Pap:	Yearly	Due	<input type="text"/> Add Anal Pap	<input type="checkbox"/>			
Cervical Pap Smear	Cerv Pap:	Yearly for females age 21+	Protocol does not apply to patient.	<input type="text"/> Add Cerv Pap	<input type="checkbox"/>			
Ophthalmologic Exam	Exam Date:	Yearly	Due	Date: <input type="text"/>	<input type="checkbox"/>			
Dental Exam	Exam Date: 04/10/2012 (04/26/2012 7:17:42)	Yearly	Protocol Satisfied	Date: <input type="text"/>	<input type="checkbox"/>			
References: DHHS Guidelines - Adults/Adol DHHS Guidelines - Peds hivguidelines.org (NY Dept of Health): Primary Care Approach								

EDUCATION & RETENTION



Prev Care 1	Prev Care 2	Info	Geno Pheno	Meds Mgmt	Ols	History	Ed / Retention
-------------	-------------	------	------------	-----------	-----	---------	-----------------------

HIV Management - Education, Retention, & Goals

Retention

high risk for loss to care

financial issues, relocation (10/06/2011 6:42:09 AM)

lost job as construction worker, trying to find work as handyman,

high risk for loss to care

Risk Factors:

behavioral health issues financial issues housing issues

incarceration relocation substance abuse

Comments:

Education

all education done today

HAART education

General HIV education

STI Prevention education

HAART medication adherence education

Nutrition/Diet education

Self Management Goals

Goal #1: Diet *Last updated: 08/30/2012*

Goal Description: eat foods that don't induce heartburn

Goal #2: Exercise *Last updated: 08/30/2012*

Goal Description: walk 3x/week for 20-30min

Goal #3:

Goal Description:

Goal #4:

Goal Description:

Goal #5:

Goal Description:

Comments:

R

IMPLEMENTING PERFORMANCE IMPROVEMENT

POINT OF CARE REMINDER



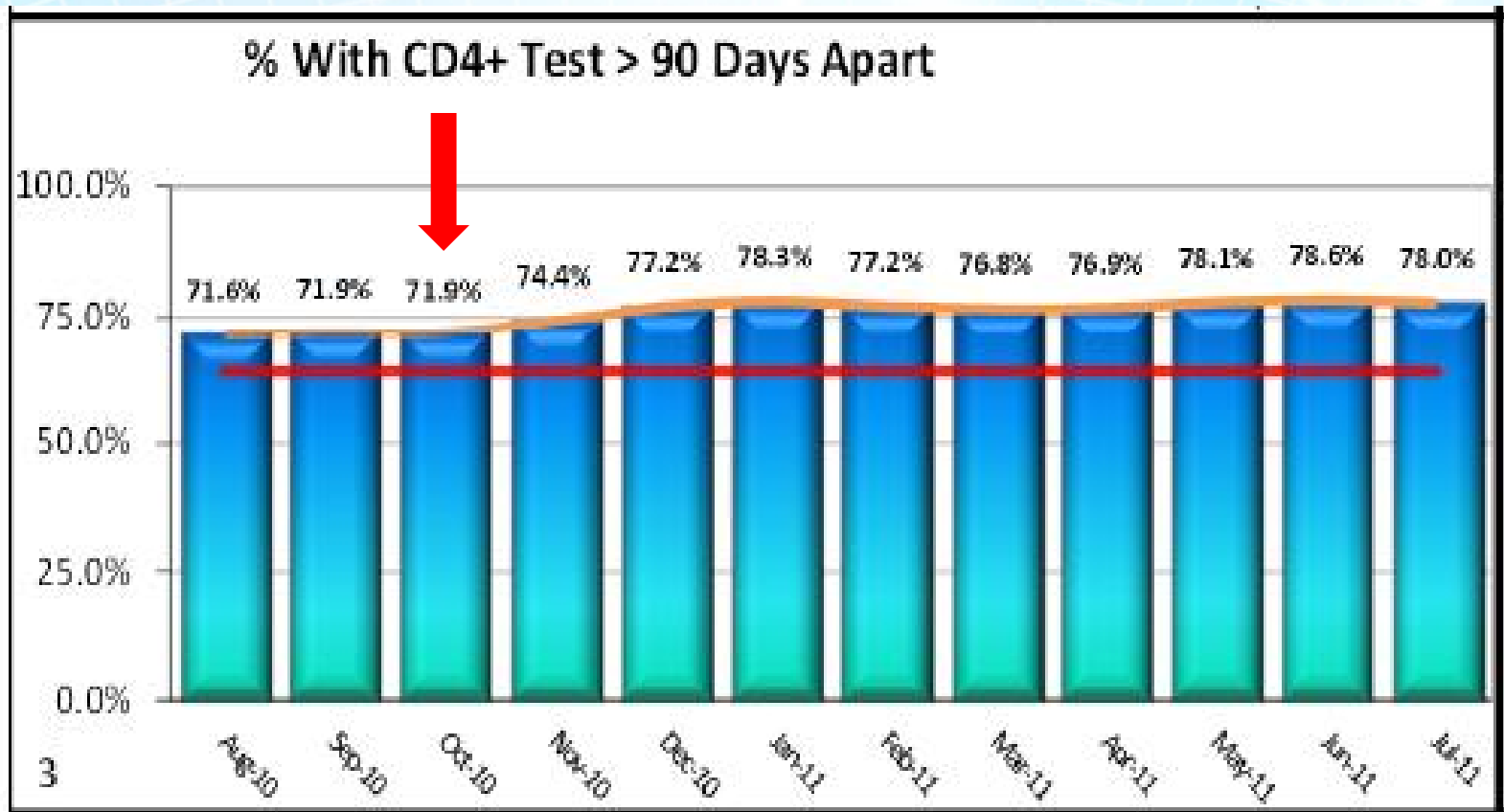
HIV Preventive | **HIV Labs** | HIV Medications | HIV Education

HIV Management - Labs Reviewed All

TEST	PROTOCOL	LAST TEST	RECOMMENDATION
CD4 Count	Every 3 Months	<input type="text"/>	CD4 Count Due Today
Viral Load	Every 3 Months	<input type="text"/>	Viral Load Due Today
HDL	Yearly	60 (11/22/2004)	HDL Due Today
Triglycerides	Yearly	210 (11/22/2004)	Triglyceride Due Today

Prev Form (Ctrl+PgUp) | Next Form (Ctrl+PgDn)

RESULTS



SHOW PATIENT LIST



DOQ-IT Diabetes Mellitus

[More Info](#) | [Show Details](#)

Measure	Status
<input type="checkbox"/> DM-1: HbA1c Management	✓
<input type="checkbox"/> DM-4: Lipid Measurement	!
<input type="checkbox"/> DM-7: Eye exam	!
<input type="checkbox"/> DM-3: Blood Pressure Management	✓
<input type="checkbox"/> DM-5: LDL Cholesterol Level	✓
<input checked="" type="checkbox"/> DM-2: HbA1c Management Control	!
<input type="checkbox"/> DM-8: Foot exam	✓
<input type="checkbox"/> DM-6: Urine protein testing	✓

Data as of 30-Jun-2011 Patient Count = 7

Select measures from the list, then click button to show patient list.

[Show Patient List](#)

Patient List For Selected Measures

[Go to Chart](#) | [Convert To Inquiry](#)

This lists your patients who failed to meet all selected thresholds.

Name	Date Of Birth	Address	Status
<input type="checkbox"/> Lisa W. Chavez	15 Feb 1988	1704 N. Kaydine ... 61628	Active
<input type="checkbox"/> Michael Calhoun	21 Feb 1972	5523 North. Kammers Ave Apt 25 ... 61641	Active

0 selected

Page 1 of 1 (Total 2 patients)

CONTACT PATIENTS



Patient List For Selected Measures

Go to Chart **Convert To Inquiry**

This lists your patients who failed to meet all selected thresholds. You can create an inquiry that contains selected patients from this list.

Count Result:
Search Result: Patients found: 14

Asst. Pym
Cadoux, Michael
Chavez, Lisa M
Johnson, Betty
King, William E
Kron, John H
Lawson, Victor B
McCarter, Christine Mary
Neuhart, Mary
Redmond, Linda B
Rosenfeld, Kathryn A
Sampson, Judith
Sandman, Rene J
Schein, Adam K

Patient Insurance Contacts

Patient ID: 80-TEST011 Status: Active PracticeMgr: MR-000-002

Last Name: Bassett Social Security No: 543-34-5621

First Name: Don Middle: C MRN: MR-000-002

Address 1: 12155 SW Broadway Language: English

Address 2: Employment Status: Full-time

City: Chicago State: IL Home Location: E IM

Country: USA Zip: 60640 Resp. Provider: Starr MD, Kelly G.

Birth Date/Time: 06/12/1947 Title: Sensitive Patient **Get Picture...**

Home Phone: 503-629-5541 Suffix: Users denied access to this patient:

Cell Phone: Sex: Male

Work Phone: 503-892-8955 Marital: Married

Fax: 503-892-8956 Race: Caucasian

Pager: Ethnicity: Non Hispanic or

E-Mail: dbassett@aol.com

Contact By: Home/All Phone

Registration Method:
[None]
Home/All Phone
Cell Phone
Work Phone
Letter
E-Mail
Nursing Home
Durable Power of Attorney
Paper
Pager
Fax
Other

Print... **Bulk Alerts/Flags**



Phone



Letter



Email



SMS/Text

HCV MODULE DEVELOPMENT

PROJECT OVERVIEW



- “ Pilot Program to implement a shared Clinical Decision Support (CDS) Tool at clinics in two US cities (Chicago, IL and Huston, TX) that participate in the Alliance Network/Learning Community
- “ Focus of CDS was to support both screening and treatment of HCV
- “ Baseline data compiled related to screening and testing of HCV
- “ Capture data on use of CDS and impact of screening and treatment post CDS Implementation

FOCUS GROUP



- “ Members – clinicians from CHCs with high incidence of people living with HCV
- “ Models of care – integrated, vertical, referral
- “ Expense of treatment
- “ Need for policy and funding similar to RWCA
- “ Need for decision making tools to support
 - . HCV screening
 - . HCV treatment





CLINICAL CONTENT DEVELOPMENT PROCESS

- “ **Partnership**: IAPAC and The Alliance
- “ Key areas of clinical **need** identified and prioritized
- “ Subject Matter Experts (SMEs) are assigned to work with the Alliance Informatics Team to **design and build** the clinical templates
- “ Built templates are **tested** for usability and accuracy
- “ Approves content to **put into use** based on testing
- “ Alliance Informatics team creates necessary **training** material to support use

Test Sites – Chicago and Houston



	Unique Patients seen in 2012	Percent
Diagnosis of HCV	2314	8.3%
Screened for HCV	1506	5.4%

Sex	Patients
Female	745
Male	1568
Other	1

Age	Patients
13-18	6
19-29	105
30-39	249
40-49	765
50+	1179



INTERNATIONAL ASSOCIATION
PROVIDERS OF AIDS CARE

Hepatitis C Screening DOB: 09/10/1946 Patient Age: 66 Years Old

Hepatitis C Status on Problem List ?
No diagnosis of Hepatitis C on his/her Problem List.

Hepatitis C Results *add below results to note* **Add Results to Chart**
Ab: positive (11/30/2012)
Viral Load: 675,000 (12/17/2012)

Risk Alert
Born between 1945 and 1965 **HIV/AIDS on Problem List** **Liver Disease on Problem List**

Risk Assessment
Yes (01/29/2013)
No (01/29/2013)
No (01/29/2013)
Yes (01/29/2013)
No (01/29/2013)
Yes (01/29/2013)
No (01/29/2013)
Unsure (01/29/2013)
No (01/29/2013)
No (01/29/2013)

Have you ever injected an illegal drug? Yes No Unsure
Did you receive any blood/organ/tissue transplants before 1993? Yes No Unsure
Did you receive any blood clotting products before 1987? Yes No Unsure
Are you HIV-positive? Yes No Unsure
Have you ever been on hemodialysis? Yes No Unsure
Have you ever had signs or symptoms of liver disease? Yes No Unsure
When you were born, was your mother infected with Hepatitis C? Yes No Unsure
Have you ever been exposed to Hepatitis C at work? Yes No Unsure
Have you ever had any other exposure to Hepatitis C? Yes No Unsure
Comments:

Patient Education
Disease Process *Harm Reduction*
01/29/2013 general Hepatitis C info 01/29/2013 decreasing alcohol intake handwashing & infection control
01/29/2013 impact of liver disease 01/29/2013 maintaining a healthy weight proper needle use & disposal
 Hepatitis A vaccine Hepatitis B vaccine

Follow-Up Instructions
 return to clinic in day(s) week(s) month(s) schedule an appointment for reviewing lab results
 clinic to call the patient with lab results and instructions other instructions (please specify in Comments)
Comments:

Problems

Orders

Prev Care 1

Prev Care 2

Add Results

SEs / Skin Rash

Treatment

Pt Engagement

Hepatitis C Management - Preventive Care Review

DOB: 09/10/1946

Patient Age: 66 Years Old

ASSOCIATION
OF AIDS CARE

high risk for loss to care

Type	Last Screening	Protocol	Recommendation	Add Info	add all to note
Hepatitis C Antibody	Ab: positive (11/30/2012)	Once	Protocol Satisfied	Add Antibody	<input type="checkbox"/>
Hepatitis C Viral Load	RNA: 675,000 (12/17/2012)	Once	Protocol Satisfied	Add Viral Load	<input type="checkbox"/>
Hepatitis C Genotype	Genotype: 1b (12/17/2012)	Once	Protocol Satisfied	Add Genotype	<input type="checkbox"/>
Liver Panel	AST: 41.4 (12/17/2012) ALT: 57.4 (12/17/2012) Bili: 1.1 (12/17/2012) Alk Phos: 112 (12/17/2012)	Once	Protocol Satisfied	Add Liver Panel	<input type="checkbox"/>
Liver Biopsy	Bx: portal fibrosis found in left lower section (01/08/2013)	Once	Protocol Satisfied	Add Liver Biopsy	<input type="checkbox"/>
Liver Ultrasound	U/S:	Once	Due	Add Liver Ultrasound	<input type="checkbox"/>
Alpha - Fetoprotein	AFP: 9.4 (01/08/2013)	Once	Protocol Satisfied	Add AFP	<input type="checkbox"/>
eGFR	eGFR: 32 (12/18/2012)	Once	Protocol Satisfied	Add eGFR	<input type="checkbox"/>

Reference:

AASLD Hepatitis C Guidelines

Prev Care 1

Prev Care 2

Add Results

SEs / Skin Rash

Treatment

Pt Engagement

Hepatitis C Management - Patient Engagement

DOB: 09/10/1946

Patient Age: 66 Years Old

Retention

high risk for loss to care

behavioral health issues, financial issues (11/18/2012 12:51:07 PM)

high risk for loss to care

Risk Factors:

- behavioral health issues financial issues housing issues
 incarceration relocation substance abuse

Comments:

Patient Education

Disease Process

01/29/2013 general Hepatitis C info

01/29/2013 impact of liver disease

Harm Reduction

01/29/2013 decreasing alcohol intake

01/29/2013 maintaining a healthy weight

Hepatitis A vaccine

handwashing & infection control

proper needle use & disposal

Hepatitis B vaccine

Treatment

risk/benefit assessment

side effects

self-injection training

treatment options

treatment adherence

return-demonstration of self-injection performed by patient

likelihood/benefits of cure

cost of treatment

Self Management Goals

Goal #1: Disease-Specific Goal *Last updated: 02/26/2013*

Goal Description: take Hepatitis C medications as prescribed

Goal #2: Exercise *Last updated: 02/26/2013*

Goal Description: walk in the park at least 3x/week for 30 minutes

Goal #3: Diet *Last updated: 02/26/2013*

Goal Description: eat more vegetables and drink more water, instead of snack foods and soda

Goal #4:

Goal Description:

Goal #5:

Goal Description:

Comments:

Care Management Plan

INATION
CARE

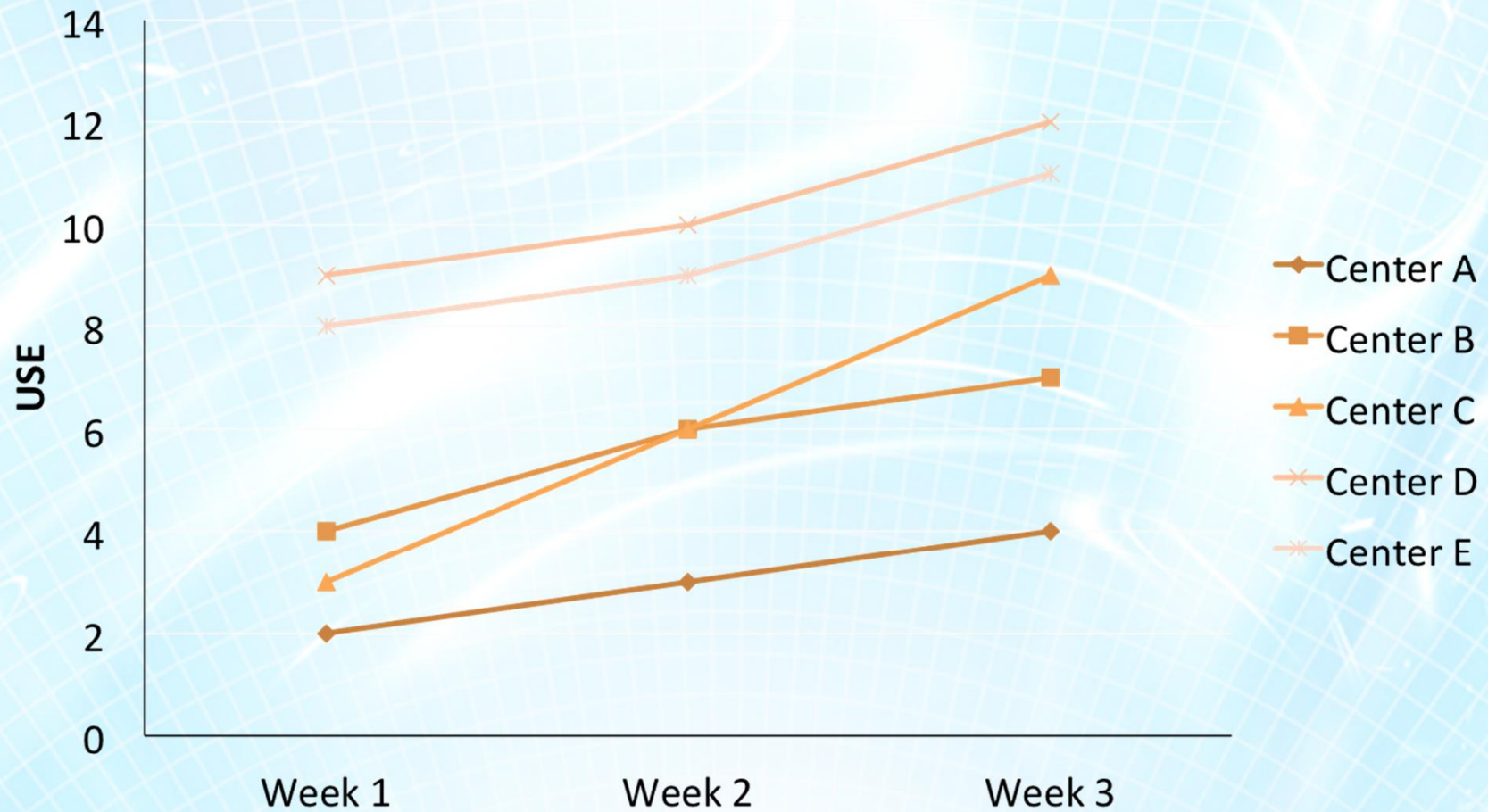
CONTENT ROLLOUT



- “ Provided access to real-time and recorded webinar style trainings
- “ Issued a one page FAQ
- “ Offered on-site/live training
- “ Go-live was scheduled for March 1, 2013

PRELIMINARY RESULTS

USE OF CDS BY SITES BY WEEK



**NEXT STEPS:
HIV ENGAGEMENT IN CARE
MODULE DEVELOPMENT**

IMPROVING LINKAGE TO TESTING



SCREENING FOR HIV CLINICAL SUMMARY OF U.S. PREVENTIVE SERVICES TASK FORCE RECOMMENDATION

Population	Adolescents and adults aged 15 to 65 years, younger adolescents and older adults at increased risk for infection, and pregnant women
Recommendation	Screen for HIV infection. Grade: A

Entry/Retention/Adherence Guidelines



- Entry and retention in HIV care
- Monitoring ART adherence
- Interventions to improve ART Adherence
- Adherence tools for patients
- Education and counseling interventions
- Health system and service delivery interventions
- Special populations

Clinical Guidelines

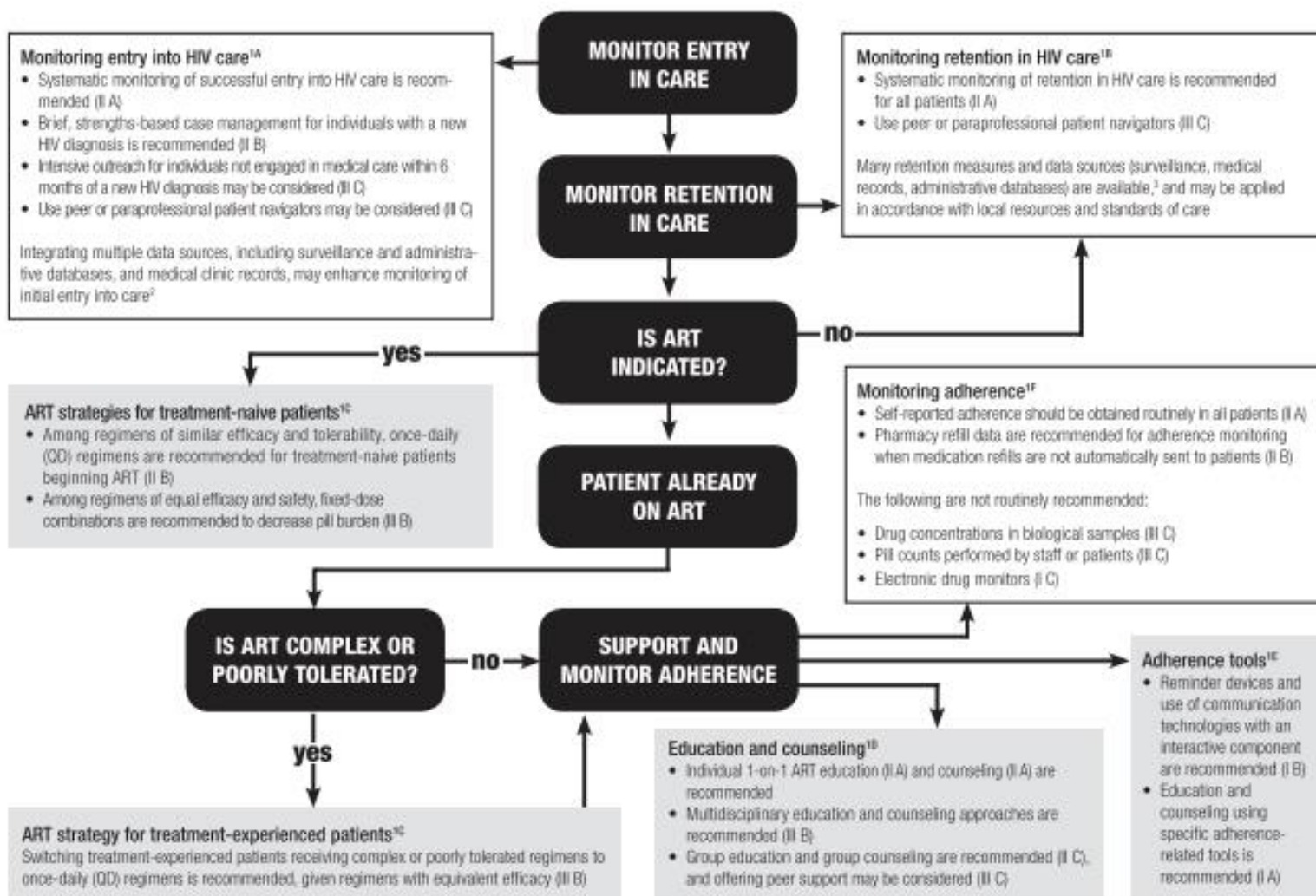
Guidelines for Improving Entry Into and Retention in Care and Antiretroviral Adherence for Persons With HIV: Evidence-Based Recommendations From an International Association of Physicians in AIDS Care Panel

Melanie A. Thompson, MD; Michael J. Mugavero, MD, MHSc; K. Rivet Amico, PhD; Victoria A. Cargill, MD, MSCE; Larry W. Chang, MD, MPH; Robert Gross, MD, MSCE; Catherine Orrell, MBChB, MSc, MMed; Frederick L. Altice, MD; David R. Bangsberg, MD, MPH; John G. Bartlett, MD; Curt G. Beckwith, MD; Nadia Dowshen, MD; Christopher M. Gordon, PhD; Tim Horn, MS; Princy Kumar, MD; James D. Scott, PharmD, MEd; Michael J. Stirratt, PhD; Robert H. Remien, PhD; Jane M. Simoni, PhD; and Jean B. Nachega, MD, PhD, MPH

RECOMMENDATIONS: ENTRY INTO/RETENTION IN CARE

- Systematic monitoring of successful entry into HIV care is recommended for all individuals diagnosed with HIV (**II A**).
- Systematic monitoring of retention in HIV care is recommended for all patients (**II A**).
- Brief, strengths-based case management for individuals with a new HIV diagnosis is recommended (**II B**).
- Intensive outreach for individuals not engaged in medical care within 6 months of a new HIV diagnosis may be considered (**III C**).
- Use of peer or paraprofessional patient navigators may be considered (**III C**).

Improving Entry Into and Retention in Care and Antiretroviral Adherence for Persons with HIV¹



1. Thompson MA, Mugavero MJ, Amico KR, et al. Guidelines for improving entry into and retention in care and antiretroviral adherence for persons with HIV: Evidence-based recommendations from an International Association of Physicians in AIDS Care Panel. *Ann Intern Med.* 2012;156(11):817-833. 1A. Recommendations 1, 3-5; 1B. Recommendations 2,5; 1C. Recommendations 11-13; 1D. Recommendations 16-20; 1E. Recommendations 14-15; 1F. Recommendations 6-10.
 2. Zetula NM, Bernstein K, Alrens K, et al. Using surveillance data to monitor entry into care of newly diagnosed HIV-infected persons: San Francisco, 2006-2007. *BMC Public Health.* 2009;9:17.
 3. Mugavero MJ, Dawila JA, Nevin CR, Giordano TP. From access to engagement: Measuring retention in care in outpatient HIV clinical care. *AIDS Patient Care STDs.* 2010;24(10):607-613.

SUMMARY



- “ EHRs can improve health-related outcomes
- “ Development process should engage stakeholders at all levels
- “ EHR implementation can facilitate CDS use
- “ EHR-CDS modules in development to incorporate normative guidance for engagement in HIV care



IAFAC
INTERNATIONAL ASSOCIATION
OF PROVIDERS OF AIDS CARE



ACKNOWLEDGMENTS



Alliance

“Shannon Pohl

“Andrew Hamilton



IAPAC

“Vincent Congiu

“Imane Sidibé

“José Zuniga

ACKNOWLEDGMENTS



Alliance

"Shannon Pohl

"Andrew Hamilton

IAPAC

"Vincent Congiu

"Imane Sidibé

"José Zuniga





Questions?

Benjamin Young
byoung@iapac.org