

"They think it's like Star Trek": Set up and initial patient outcomes in the innovative Alabama ehealth telemedicine program.

KRITI M. JAIN, MSPH, PHD(C)

KJAIN@JHSPH.EDU

FEBRUARY 28, 2018

Learning Objectives

- Describe the steps in setting up a telemedicine program.
- Describe the associated barriers and their solutions; describe facilitating or necessary factors for the telemedicine program.
- Explore initial patient health outcomes.

Abbreviations

EMR: electronic medical record

MoU: memorandum of understanding

Outline

Brief introduction

Evaluation set-up and methods

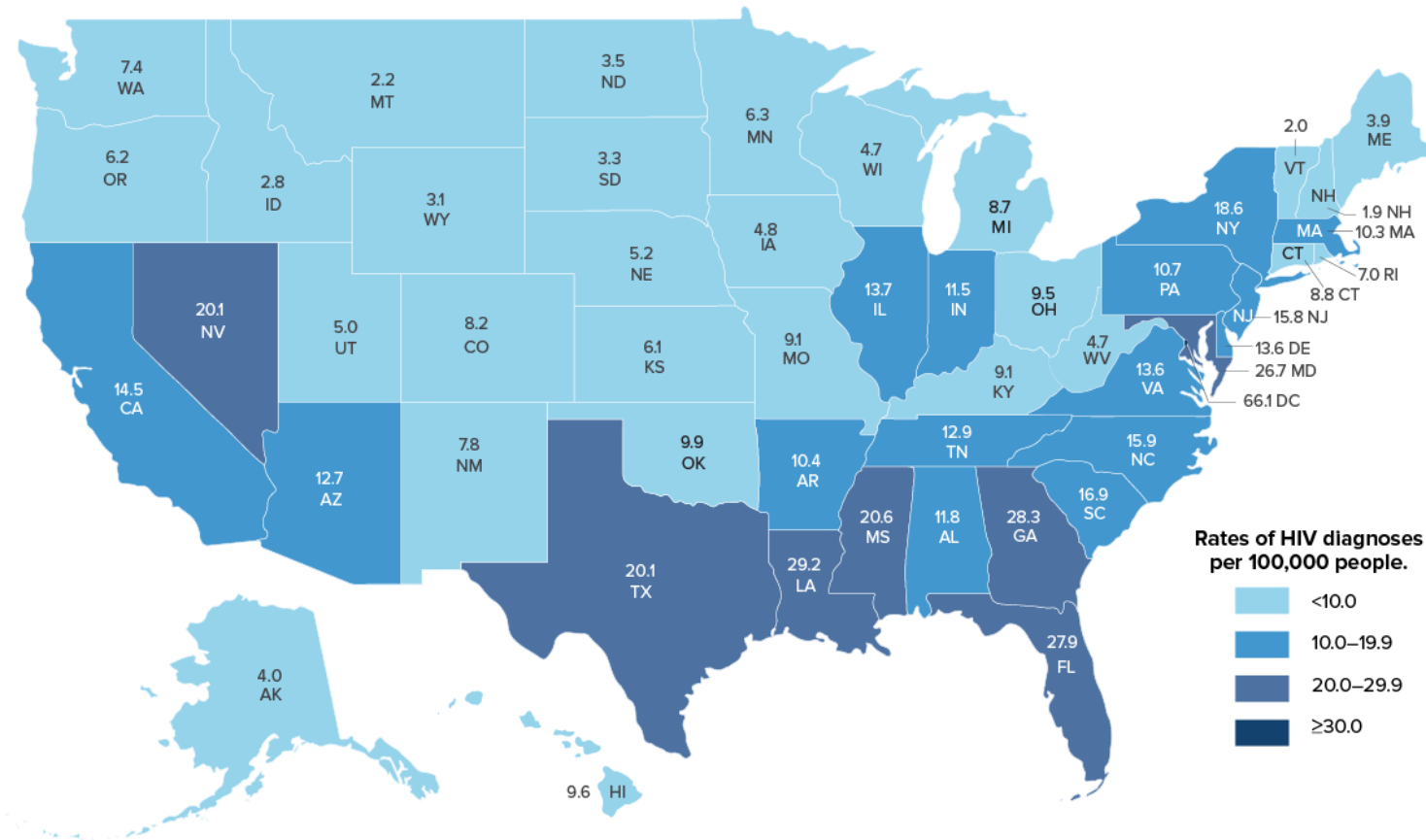
Steps to setting up the Alabama eHealth telemedicine program

Initial patient outcomes

Discussion

Q&A

HIV in the U.S. Southeast

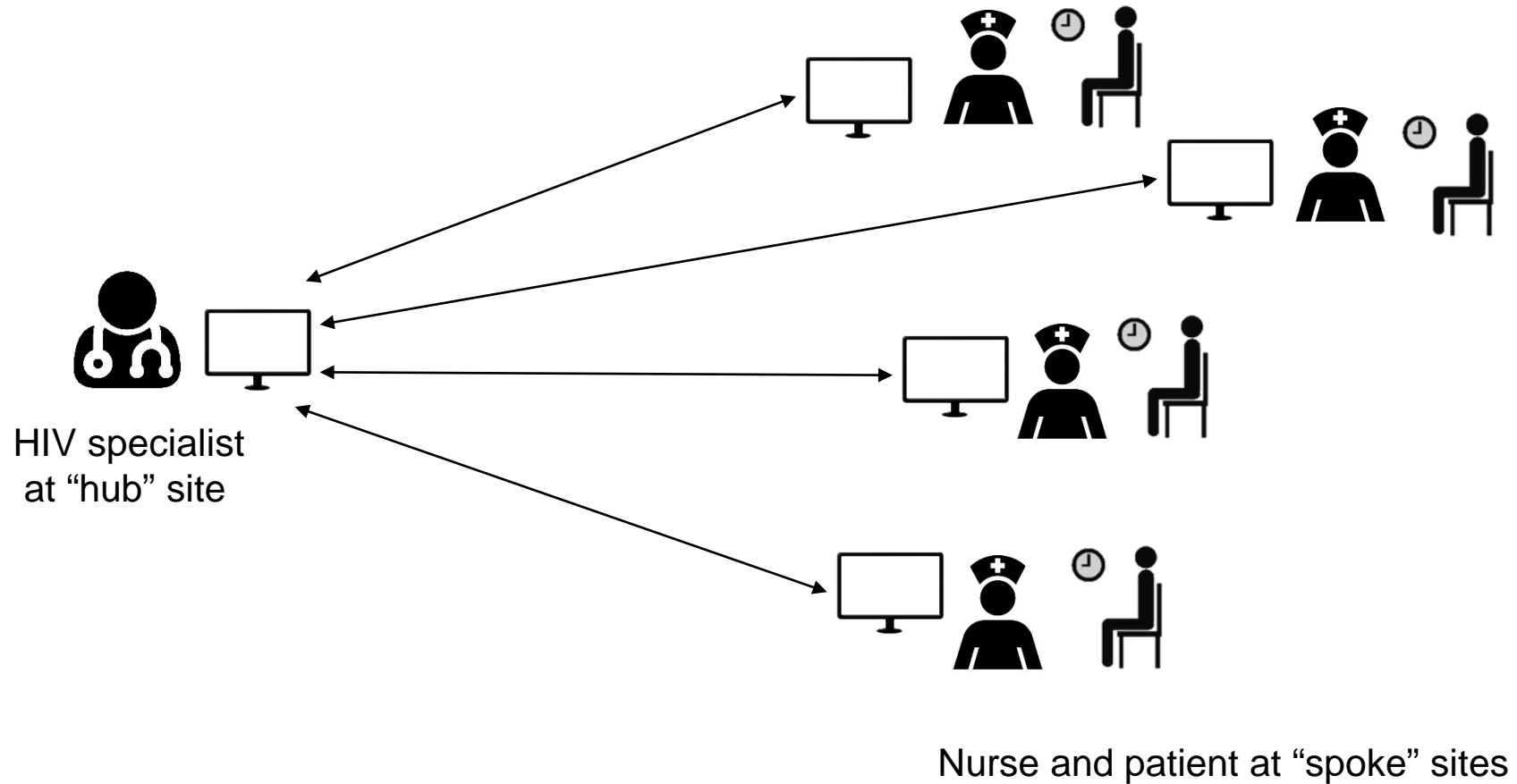




Barriers to care in rural areas

- Few medical providers
- Little to no public transportation
- Long distances to providers' offices
- Lack of confidentiality
- High HIV-related stigma

Alabama eHealth program





Previous research on telemedicine



Outline

Brief introduction

Evaluation set-up and methods

Steps to setting up the Alabama eHealth telemedicine program

Initial patient outcomes

Discussion

Q&A

Methods

- In-depth interviews
 - Client-facing role
 - Strategic or supervisory role
- Recorded and transcribed
- Analyzed using directed content analysis



Outline

Brief introduction

Evaluation set-up and methods

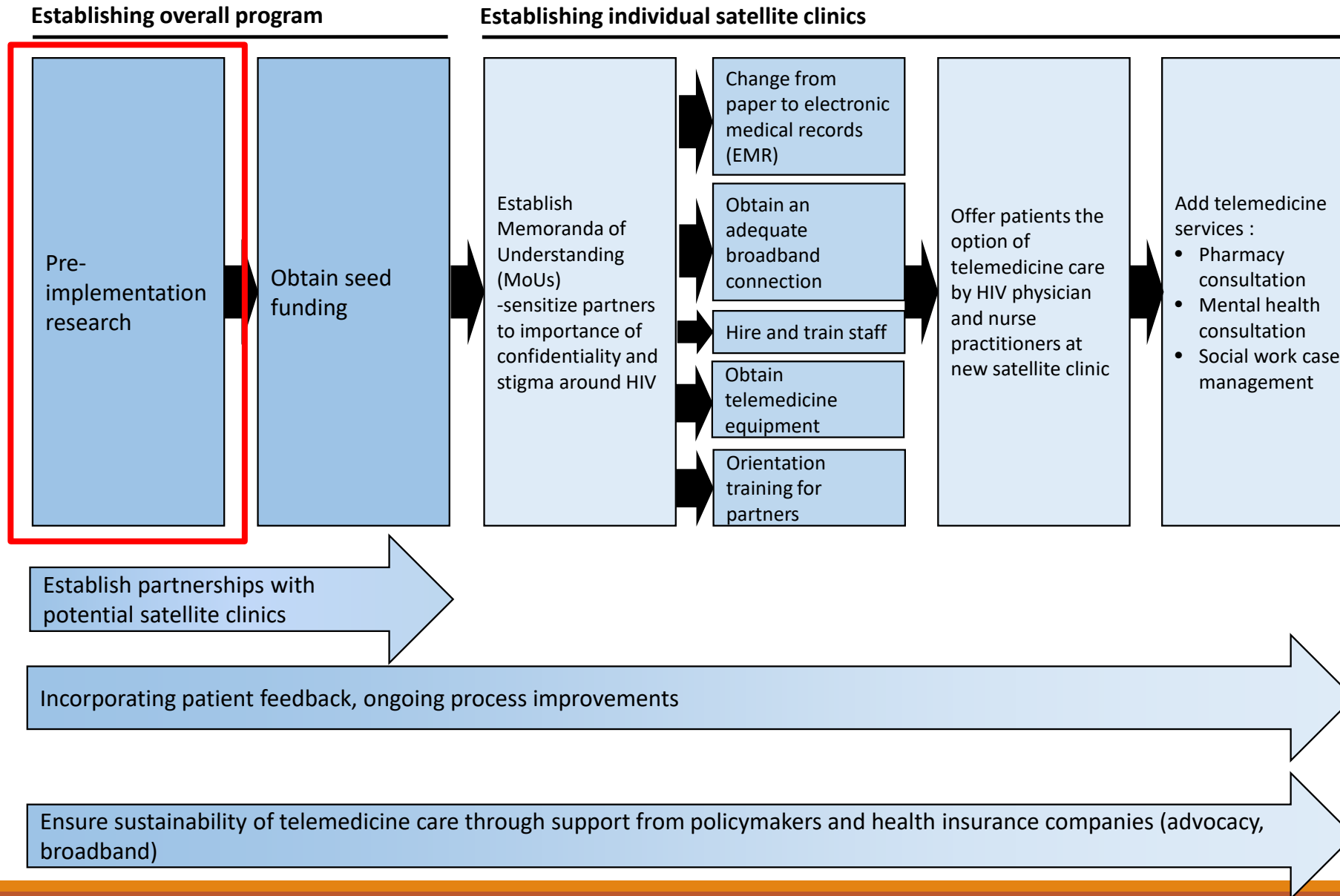
Steps to setting up the Alabama eHealth telemedicine program

Initial patient outcomes

Discussion

Q&A

Steps for establishing Alabama eHealth



Pre- implementation research

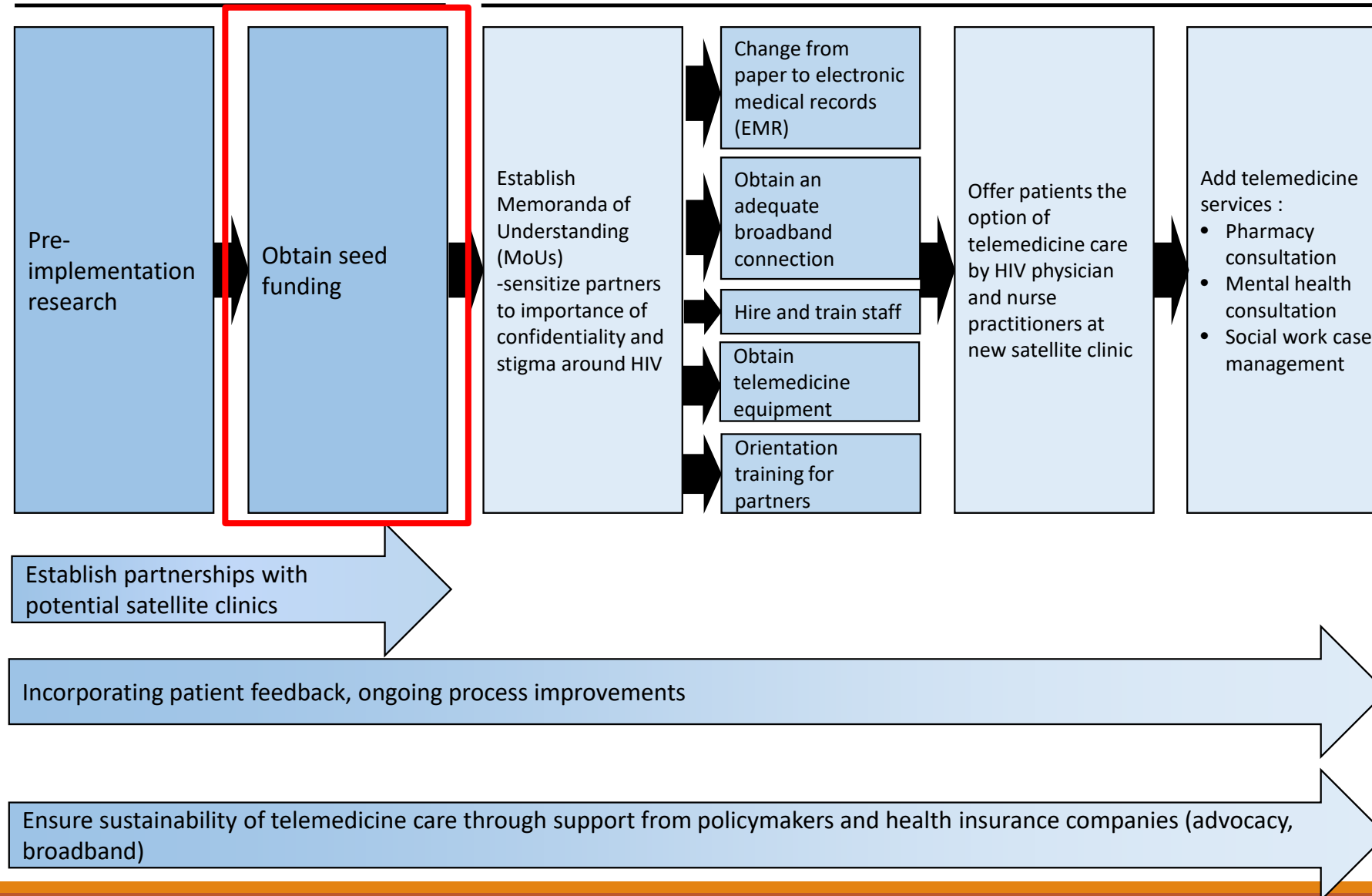
“We look at minute basics, including what should be the background color to what could be the instruments, what should be the voice and sound quality... We used the Emory University’s AIDS Vu map to look at what areas in Alabama have the highest HIV burden and lack of resources.”

- Examined telepsychiatry models
- Reviewed HIV epidemiology in Alabama
- Researched telemedicine technology

Steps for establishing Alabama eHealth

Establishing overall program

Establishing individual satellite clinics



Obtaining seed funding

- AIDS United and the Corporation for National and Community Service's Social Innovation Fund
- Funded telemedicine equipment, electronic medical records, and IT staff support

"We never had an in-house IT support before, and with the grant, we were able to hire an in-house IT manager...we could not have afforded that on our own without the AIDS United SIF grant, and we could not have done the project without it."

"It's very hard for a nonprofit to get the upfront money to put in an EMR, but we did that as part of the [AIDS United-funded] telemed grant."

Steps for establishing Alabama eHealth

Establishing overall program

Pre-implementation research

Obtain seed funding

Establishing individual satellite clinics

Establish Memoranda of Understanding (MoUs)
-sensitize partners to importance of confidentiality and stigma around HIV

Change from paper to electronic medical records (EMR)

Obtain an adequate broadband connection

Hire and train staff

Obtain telemedicine equipment

Orientation training for partners

Offer patients the option of telemedicine care by HIV physician and nurse practitioners at new satellite clinic

Add telemedicine services :

- Pharmacy consultation
- Mental health consultation
- Social work case management

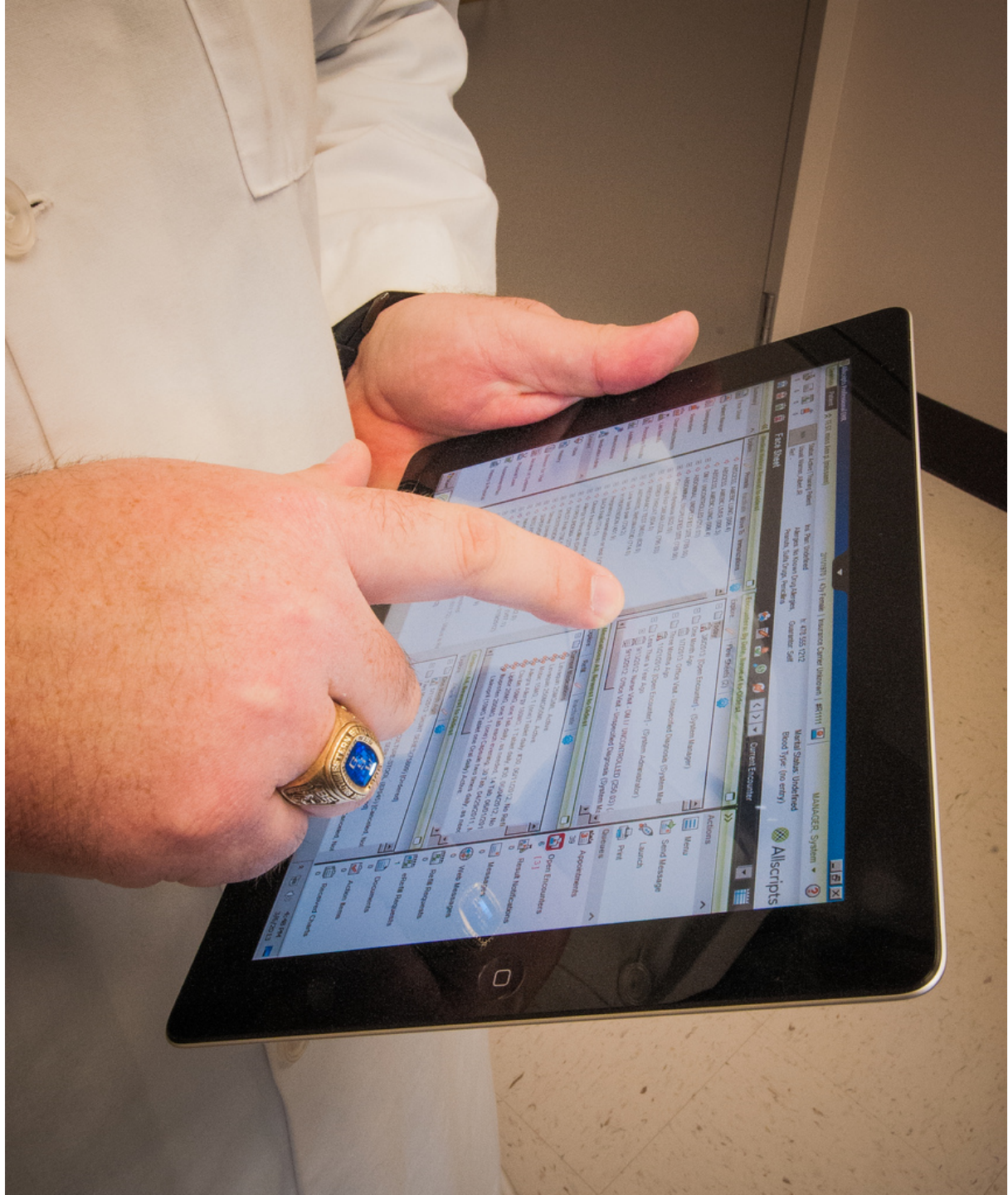
Establish partnerships with potential satellite clinics

Incorporating patient feedback, ongoing process improvements

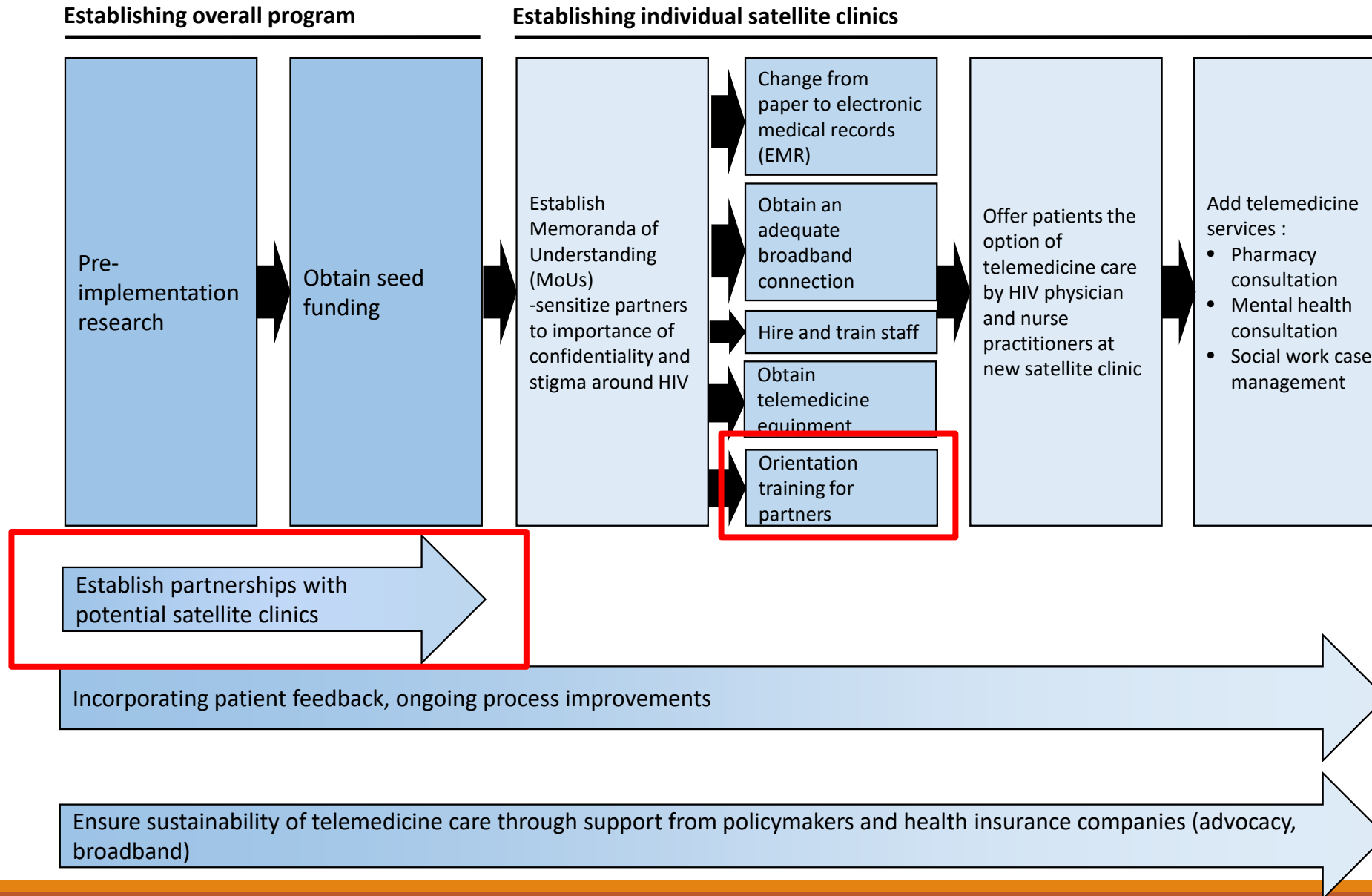
Ensure sustainability of telemedicine care through support from policymakers and health insurance companies (advocacy, broadband)

Moving to web-based electronic medical records

“The [EMR] learning curve is horrific and time consuming and therefore costly. We've had it for at least two years now. We are not as efficient now in terms of provider time and visits as we were on paper [records].”



Steps for establishing Alabama eHealth



Partnerships

"We already had very good working relationships with partners in our area."

Organization name	Location(s)	Date telemedicine started	Organization type	Role in Alabama eHealth
Medical Advocacy and Outreach	Montgomery	2012	Community-based organization (CBO)	Lead organization in Alabama eHealth. Main office location where HIV physician is located. Pharmacist, case management, Spanish translator, and food pantry are available here.
Medical Advocacy Outreach	Dothan	2012	CBO	MAO satellite office; main mental health care provider location. Case management, transportation (van).
Thrive Alabama	Huntsville	2012	CBO	Main office location Main HIV physician location.

Steps for establishing Alabama eHealth

Establishing overall program

Pre-implementation research

Obtain seed funding

Establishing individual satellite clinics

Establish Memoranda of Understanding (MoUs)
-sensitize partners to importance of confidentiality and stigma around HIV

Change from paper to electronic medical records (EMR)

Obtain an adequate broadband connection

Hire and train staff

Obtain telemedicine equipment

Orientation training for partners

Offer patients the option of telemedicine care by HIV physician and nurse practitioners at new satellite clinic

Add telemedicine services :

- Pharmacy consultation
- Mental health consultation
- Social work case management

Establish partnerships with potential satellite clinics

Incorporating patient feedback, ongoing process improvements

Ensure sustainability of telemedicine care through support from policymakers and health insurance companies (advocacy, broadband)

Obtaining broadband

- Strong broadband necessary for telemedicine program
- Difficult to obtain sufficient broadband in rural areas
- Partnership with Alabama Department of Public Health

“There was a cap on the amount of bandwidth they [internet companies] could provide to that town...and so until someone cancelled service, we wouldn't be able to get as much bandwidth as we were requesting.”

“We have had technological challenges...with the network, internet, not enough bandwidth or the internet not working.”

Steps for establishing Alabama eHealth

Establishing overall program

Pre-implementation research

Obtain seed funding

Establishing individual satellite clinics

Establish Memoranda of Understanding (MoUs)
-sensitize partners to importance of confidentiality and stigma around HIV

Change from paper to electronic medical records (EMR)

Obtain an adequate broadband connection

Hire and train staff

Obtain telemedicine equipment

Orientation training for partners

Offer patients the option of telemedicine care by HIV physician and nurse practitioners at new satellite clinic

Add telemedicine services :

- Pharmacy consultation
- Mental health consultation
- Social work case management


Establish partnerships with potential satellite clinics

Incorporating patient feedback, ongoing process improvements

Ensure sustainability of telemedicine care through support from policymakers and health insurance companies (advocacy, broadband)

Challenges with telemedicine equipment

- Learning curve with telemedicine equipment
- Poor audio quality
- Larger screen requested by patients
- Establishing procedures for connecting main and satellite site



"We have gone through two nurses... our second telemedicine nurse was really dedicated to our patients and was a very experienced nurse, but she just could not grasp the technology."

Steps for establishing Alabama eHealth

Establishing overall program

Pre-implementation research

Obtain seed funding

Establishing individual satellite clinics

Establish Memoranda of Understanding (MoUs)
-sensitize partners to importance of confidentiality and stigma around HIV

Change from paper to electronic medical records (EMR)

Obtain an adequate broadband connection

Hire and train staff

Obtain telemedicine equipment

Orientation training for partners

Offer patients the option of telemedicine care by HIV physician and nurse practitioners at new satellite clinic

Add telemedicine services :

- Pharmacy consultation
- Mental health consultation
- Social work case management

Establish partnerships with potential satellite clinics

Incorporating patient feedback, ongoing process improvements

Ensure sustainability of telemedicine care through support from policymakers and health insurance companies (advocacy, broadband)

Additional uses of telemedicine equipment

- Mental health care
- Support groups
- Social work case management
- Clinical pharmacy consultations
- Pre-exposure prophylaxis (PrEP)
- Hepatitis C care and treatment

Outline

Brief introduction

Evaluation set-up and methods

Steps to setting up the Alabama eHealth telemedicine program

Initial patient outcomes

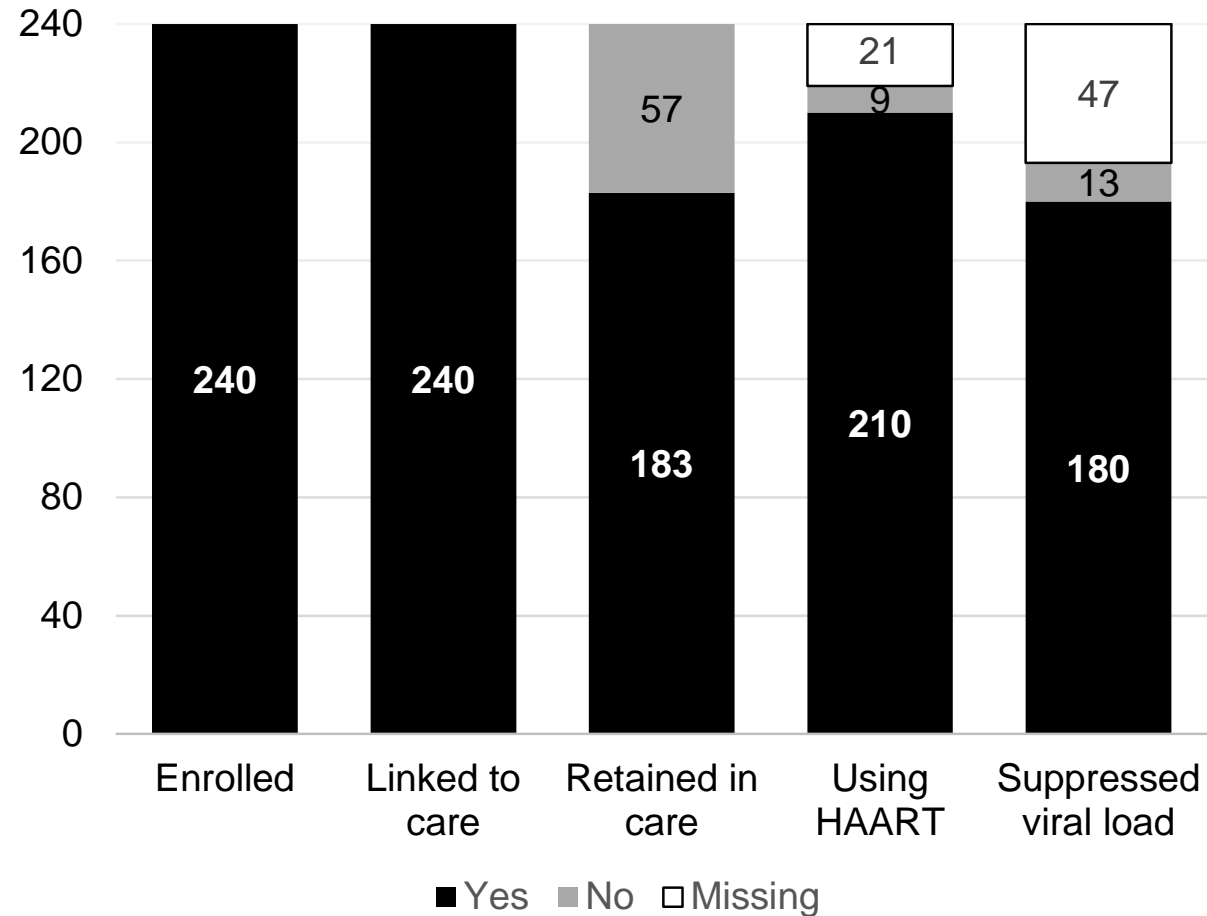
Discussion

Q&A

Evaluation participants

Age range			
	≤19	1	0.4%
	20-24	10	4.2%
	25-29	25	10.4%
	30-39	48	20.0%
	40-49	69	28.8%
	50+	87	36.3%
Race and ethnicity			
	Black/African-American, non-Hispanic	164	68.3%
	White	72	30.0%
	Other*	4	1.7%
Gender			
	Male	181	75.4%
	Female	58	24.2%
	Transgender M to F	1	0.4%

HIV Care Continuum Outcomes



Outline

Brief introduction

Evaluation set-up and methods

Steps to setting up the Alabama eHealth telemedicine program

Initial patient outcomes

Discussion

Q&A

Discussion

- Study describes process of setting up a telemedicine program to provide HIV care
- Highly feasible with startup funding and strategic partnerships
- Good patient HIV care continuum outcomes
- Further research could focus on patient experiences in addition to those of staff, implementation in other contexts, and sustainability of such programs in a rapidly changing healthcare environment

Limitations

- Participants were individuals in care
- Missing data from those who did not make appointments
- No demographic differences between those with and without data

Dissemination

Previous and upcoming plans for sharing this information with other practitioners.

Conference presentations:

Jain KM, Bhat P, Maulsby C, Andersen A, Soto T, Holtgrave D, Riordan M, Werner M, Dill L. Extending access to care across the rural U.S. south: Steps to initiating Alabama eHealth, an innovative telemedicine program. Roundtable presentation at the annual American Public Health Association Conference. Denver, CO.

Andersen A, Jain KM, Bhat P, Maulsby C, Soto T, Holtgrave D, Riordan M, Werner M, Dill L. “They think it's like Star Trek”: Barriers and facilitators to implementing Alabama eHealth, an innovative telemedicine program. Roundtable presentation at the annual American Public Health Association Conference. Denver, CO.

Peer-reviewed publication forthcoming in the Journal of Telemedicine and Telecare.

Outline

Brief introduction

Evaluation set-up and methods

Steps to setting up Alabama eHealth's telemedicine program

Initial patient outcomes

Discussion

Q&A

Thank you!

With gratitude to all those interviewed, the staff at MAO and partners, Dr. Prashanth Bhat, Dr. Cathy Maulsby, Alexandria Andersen, Dr. Tomas Soto, Ashley Tarrant, Dr. David Holtgrave, Erin Nortrup, Melissa Werner, and Dr. Laurie Dill.

- Funded by AIDS United, Social Innovation Fund (SIF), a program of the Corporation for National and Community Service (CNCS).

Please feel free to contact me at kjain@jhsph.edu

Opinions or points of view expressed in this document are those of the authors and do not necessarily reflect the official position of, or a position that is endorsed by, CNCS or the Social Innovation Fund program. The Social Innovation Fund is a program of the Corporation for National and Community Service, a federal agency that engages millions of Americans in service through its AmeriCorps, Senior Corps, Social Innovation Fund, and Volunteer Generation Fund programs, and leads the President's national call to service initiative, United We Serve. For more information, visit NationalService.gov. This project was also supported by the generous contributions of 14 private funders.

Q&A



Appendix: details on administering mental health care through telemedicine
