Integration Model: Services for HIV Infected Women and their Infants

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Workshop Objectives

- Introduce the *Integration Model* through collaboration
- Identify main components of the *Integration Model*
- Describe key aspects of the *Integration Model* services
- Discuss important facilitators and challenges

Integration Model and its Main Components

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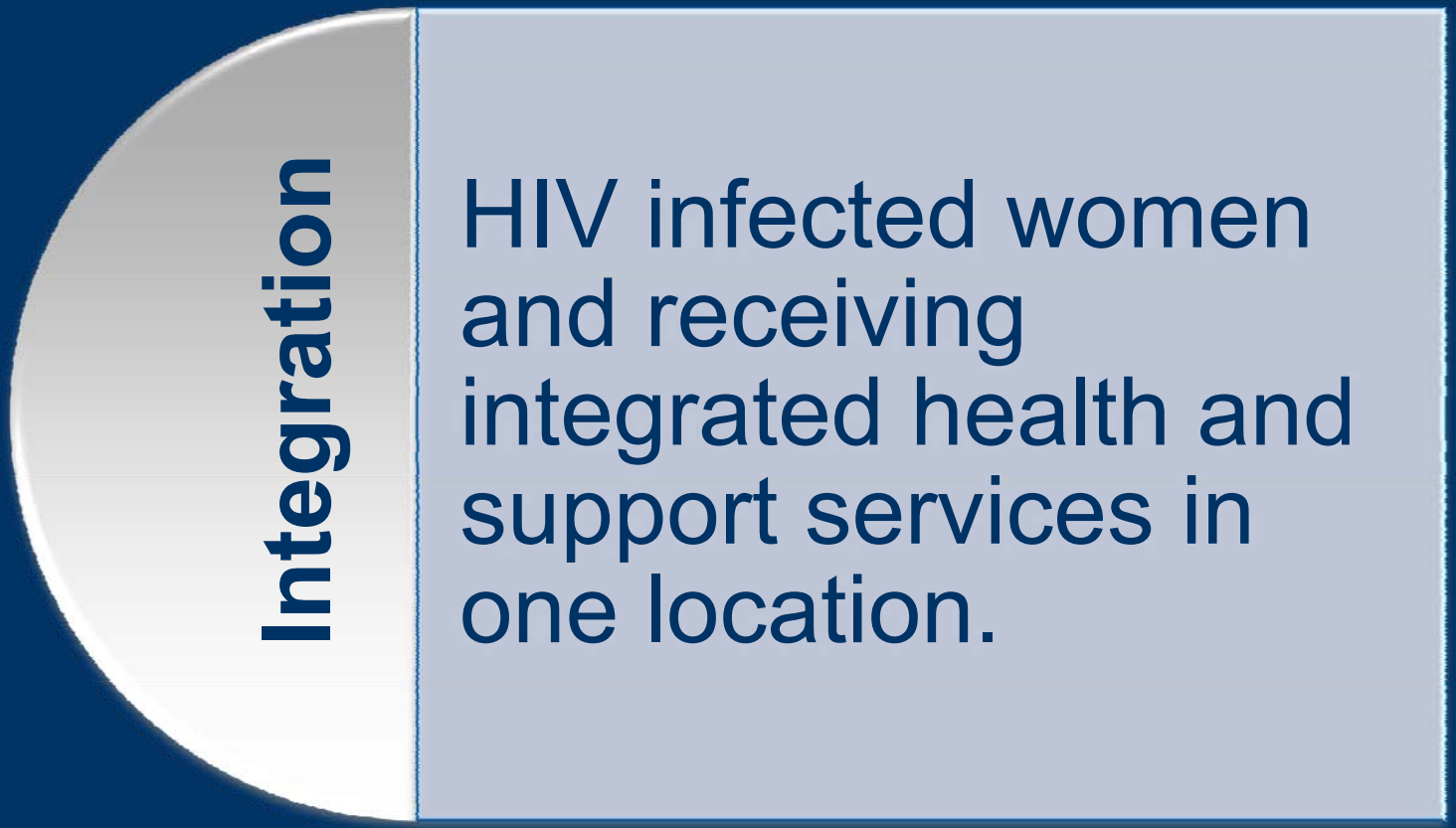
Problem: Fragmentation

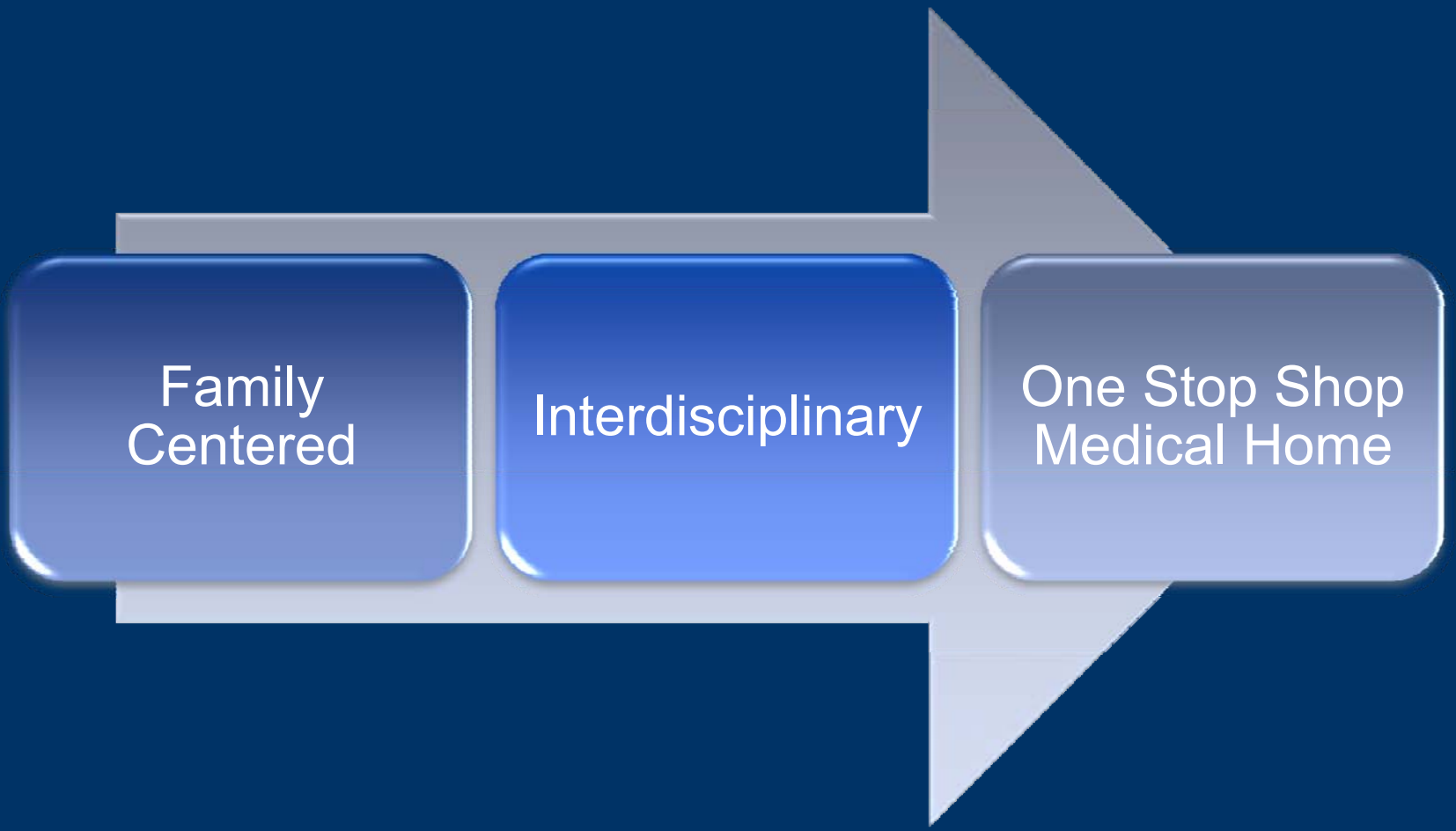
Fragmentation

HIV infected women and their infants had to navigate multiple systems in various locations for health and support services.

Solution: Integration



Main Integration Model Components



Family Centered Component

- Respect patients' values, preferences and needs
- Coordinate and integrate care across boundaries of the system
- Provide the information, communication, and education that patients need and want
- Guarantee physical comfort, emotional support, and the involvement of family

Interdisciplinary Component

- HIV Specialist - Woman
- HIV Specialist - Pediatric
- OB/GYN Provider
- Case Manager - LMSW
- Client Advocate
- Peer

One Stop Shop Component

Targeted Women and Infants

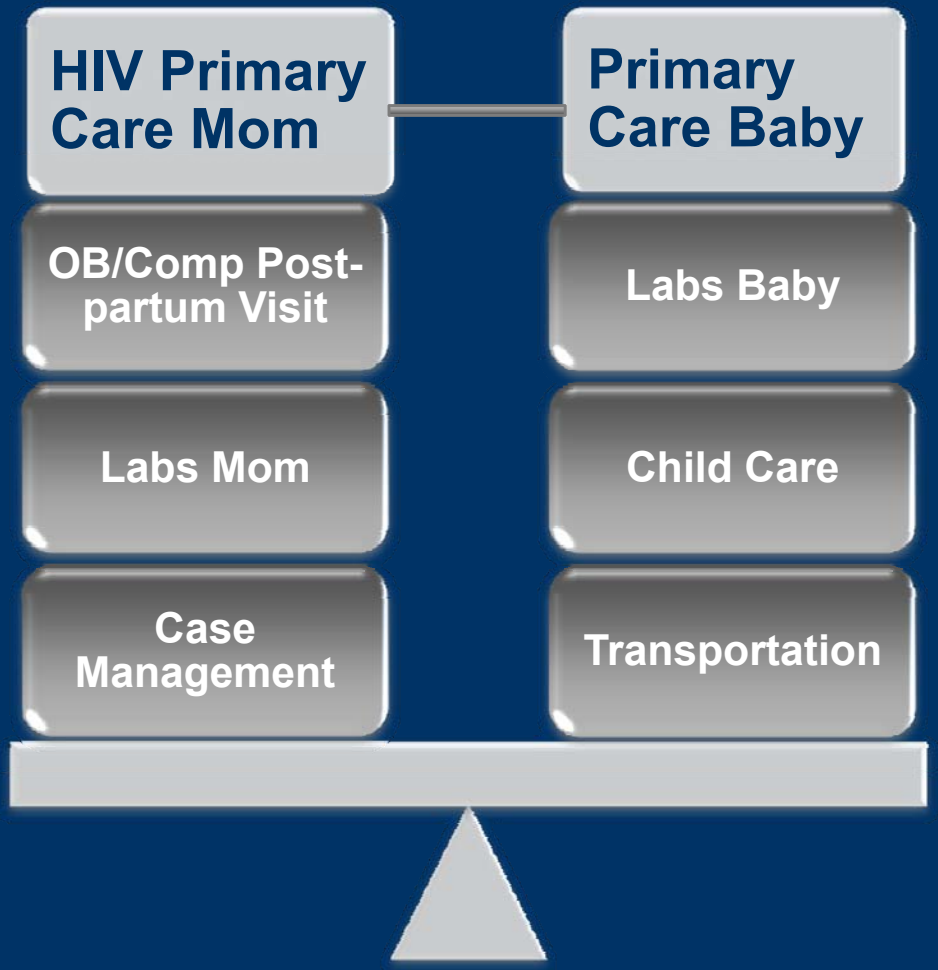
Pregnant HIV infected Women in care at Parkland Hospital

No known infant medical problems or abnormalities

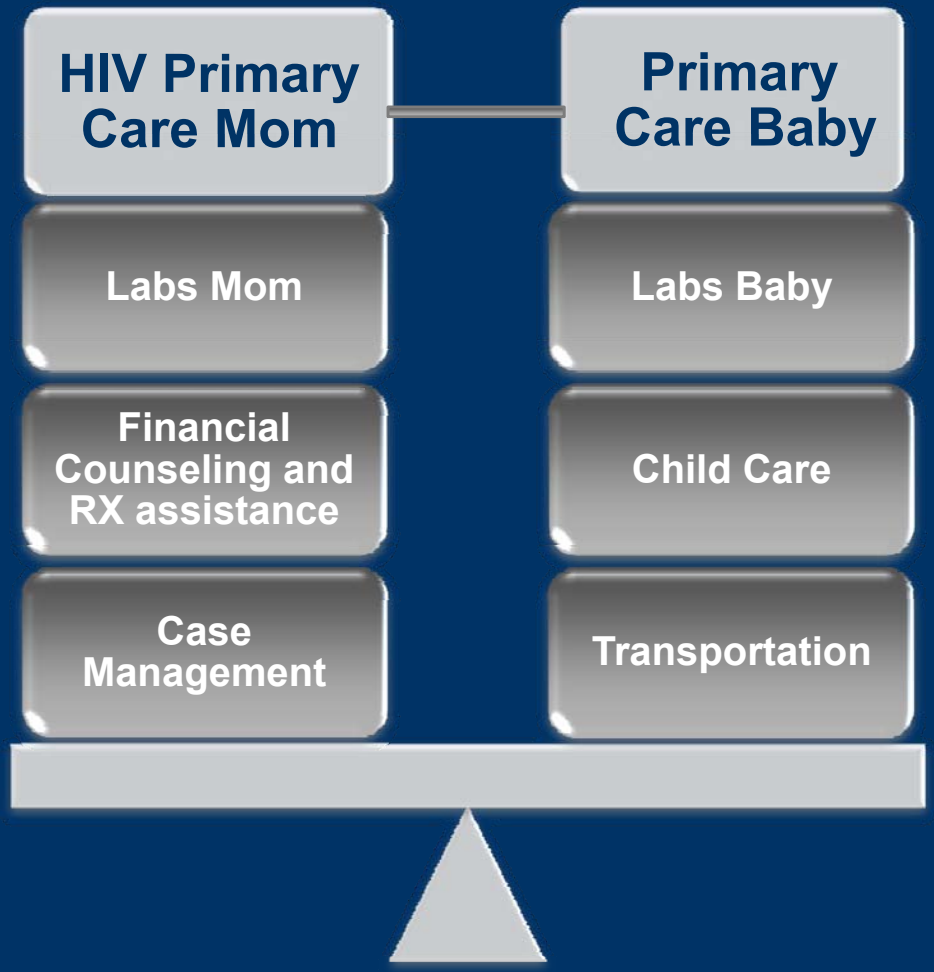
No current concerns regarding substance abuse, previous CPS cases, complicated social situations

Women who choose to receive mother/baby primary care at Parkland Women's Specialty Center (WSC)

First Integration Visit



Subsequent Integration Visits



Key Aspects of the Integration Model: Services for HIV Infected Women

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Patient Centered - Medical Home

"The Patient Centered Medical Home (PC-MH) is an approach providing comprehensive primary care for children, youth and adults. The PC-MH is a healthcare setting that facilitates partnerships between individual patients, and their personal physicians, and when appropriate, the patient's family"

American Academy of Family Physicians

American Academy of Pediatrics

American College of Physicians

American Osteopathic Association

Medical Home for HIV Infected Women

- Medical home for HIV infected Women
  - Primary Care Services
  - HIV specific Services
  - Gynecological Services and reproductive counseling
  - Ancillary Services
    - Case management by LMSW
    - Nutritionist
    - Laboratory and X-Ray
    - Financial counseling and Medication Assistance Specialist
    - Clinical Pharmacist for medication education

PC-MH Principles

- Personal Physician- Trained to provide first contact, continued and comprehensive care
- Physician Directed Medical Practice
- Whole Person orientation
- Integrated and/or coordinated care
- Quality and safety are hallmarks of this model
- Enhanced Access
- Reimbursement

Personal Physician

- HIV Specialist
  - Make decisions regarding cART in the lifespan of the patient
    - Post-partum continuation of cART
    - Pre-conception choices
  - Reproductive recommendations
    - Contraceptive choices
    - Pre-conception counseling (couples)

Physician Directed Medical Practice

- All post-partum patients seen by physician
  - Mid-levels may provide care after integration period under the supervision of the physician
  - Communication with obstetric team is key
  - Post-partum coordination of services

Whole Person Orientation

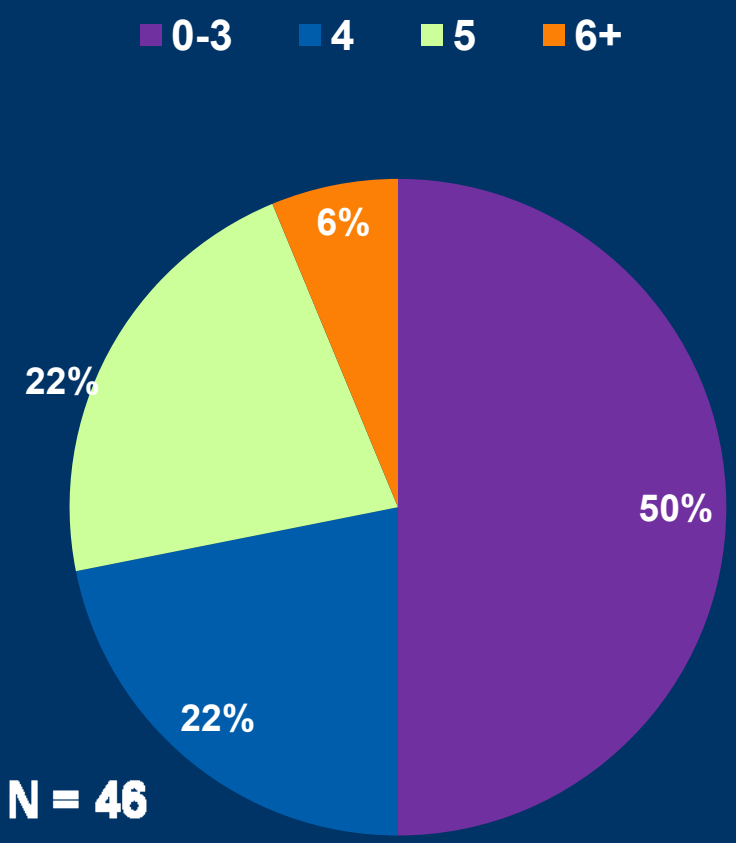
- New mothers usually concerned with infant's well-being
- Child-care duties may prevent access to services
- Maternal outcomes impact infant/child's outcomes
- Mental health screening
- Financial counseling (when Medicaid runs out)

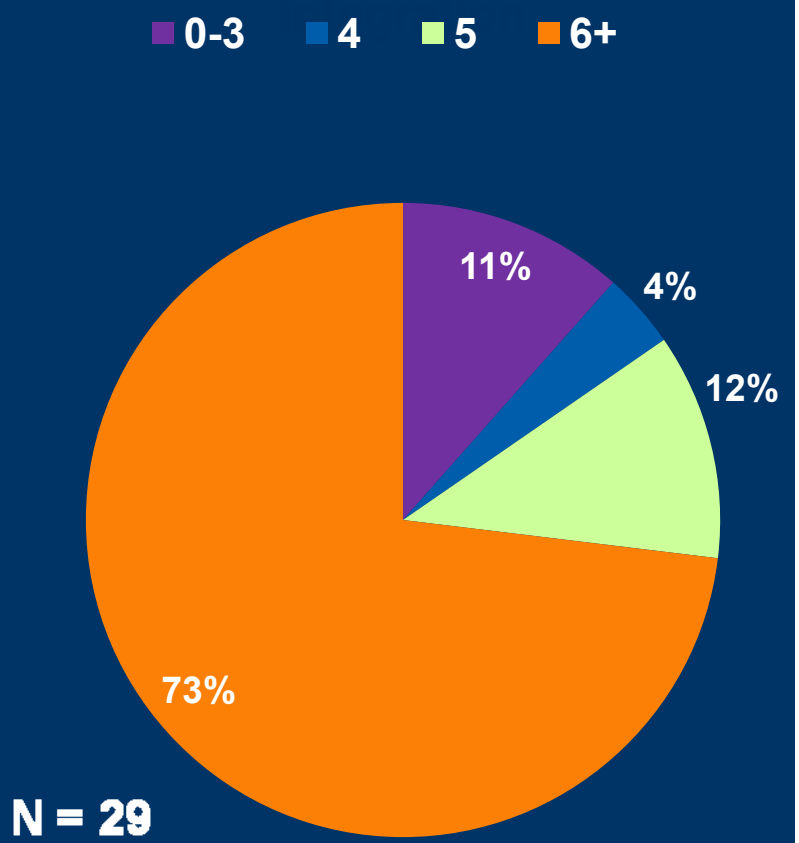
Quality and Safety

Performance Measures

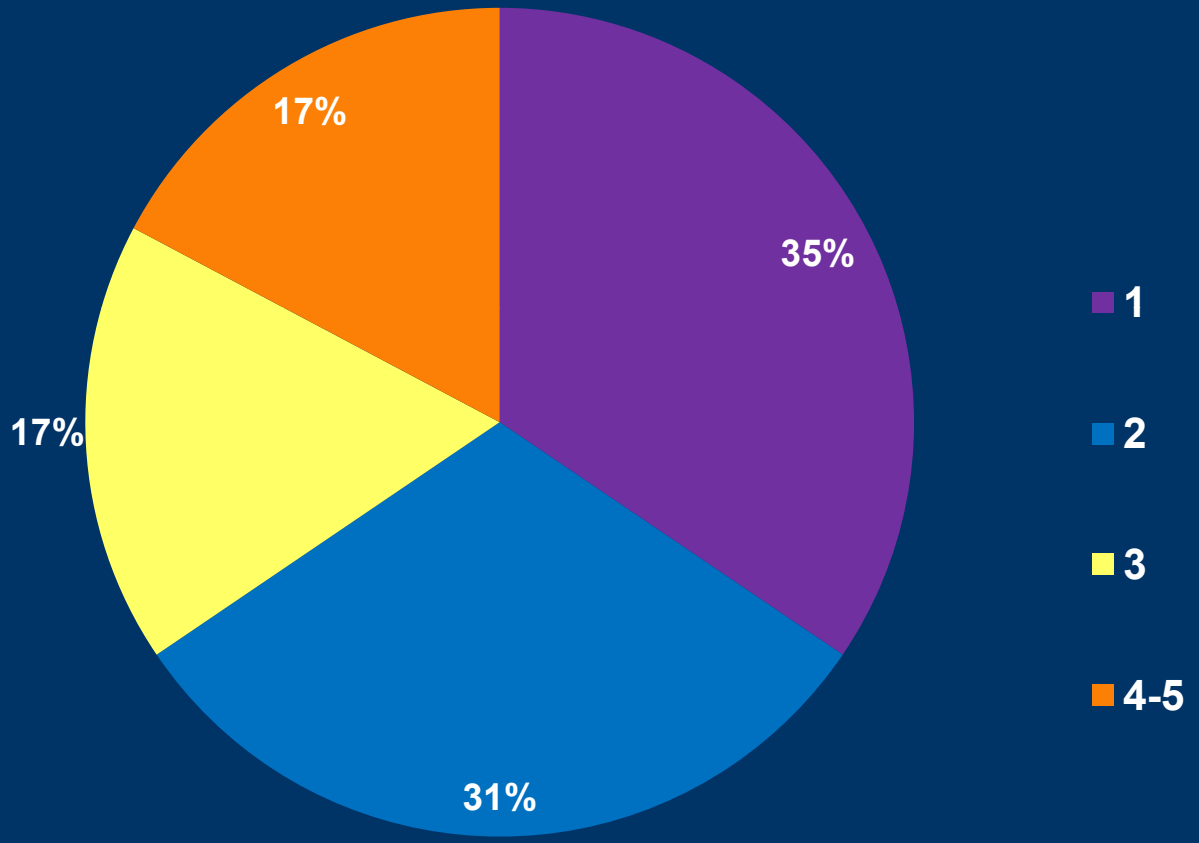
- Retention rate
  - Goal 90%
- Number of coordinated visits
- Adult HAB and HIVQual Performance Measures

HIV Infected Women with Post Partum Medical Visits 2009



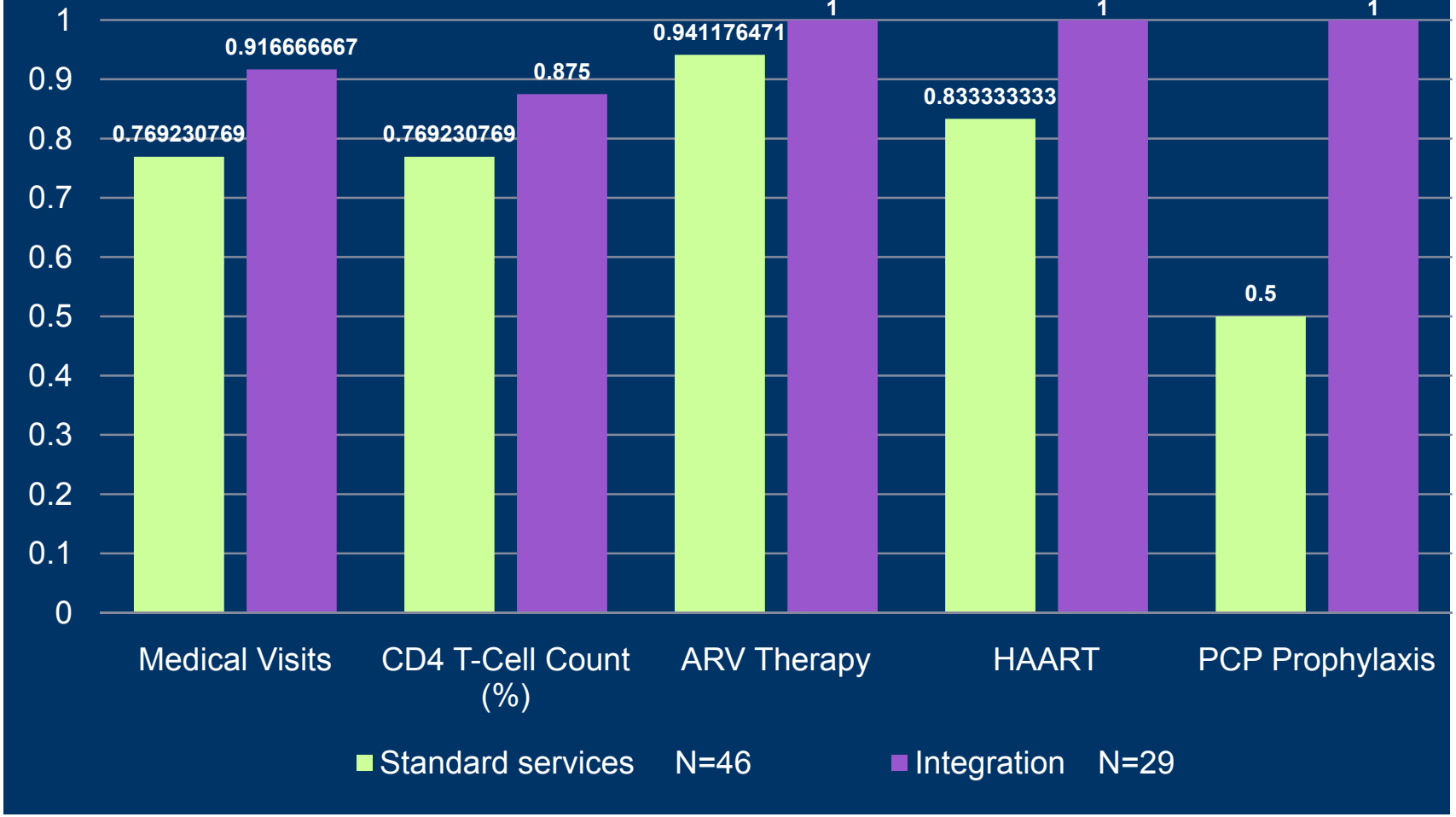


Concordant Mother/Infant Appointments 2009



N = 29 mother/infant pairs

HIV Infected Women with 2009 Childbirths



HAB Core Performance Measures – Group 1

Wrap Around Services - 2009

Child Care

- 78% of Integration women used onsite childcare
- Total encounters = 47 encounters

Transportation

- 100% of Integration women in need of transportation received it
- 5 received RW transportation

Key Aspects of the Integration Model: Pediatric Services

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Infant Testing Schedule

- Presumptive Exclusion
  - 2 negative virologic tests, one at ≥ 14 days and one at ≥ 4 weeks of age
- Definitive Exclusion
  - 2 negative virologic tests, one at ≥ 4 weeks and one at ≥4 months of age
  - ± Negative HIV Ab screen at 12-18 months

Neonatal Testing

- Virologic tests (HIV DNA or RNA)
  - HIV antibody screens detect maternal IgG
- Timing of neonatal tests
  - Age 14-21 days
  - 1-2 months
  - 4-6 months
  - Some experts test at birth
  - Some centers complete testing at 18 months

Well-Child Check (WCC) & Immunization Schedule (AAP Recommendations)

<1 week	2-4 weeks	2 months	4 months	6 months	9 months	12 months	15 months
Early infant check	WCC	WCC	WCC	WCC	WCC	WCC	WCC
	Newborn screen	Immuni-zations	Immuni-zations	Immuni-zations		Immunizations	

Integrated Mother-Infant Schedule

1-2 weeks	1 month	2 months	4 months	6 months
Newborn check		WCC + immunizations	WCC + immunizations	WCC + immunizations + transition care
+/- PCR		PCR		PCR
Post-partum check	+/- Mom HIV care	+/- Mom HIV care	+/- Mom HIV care	+/- Mom HIV care

Integrated Schedule

- Infants seen at WSC by pediatric nurse practitioner or physician for well-child visits through 6 months
- HIV PCR testing done on-site
- 24-hour on-call nurse availability through Children's Medical Center Dallas ARMS Clinic (AIDS Related Medical Services)
- Sick visits done at ARMS Clinic

Primary Program Goals

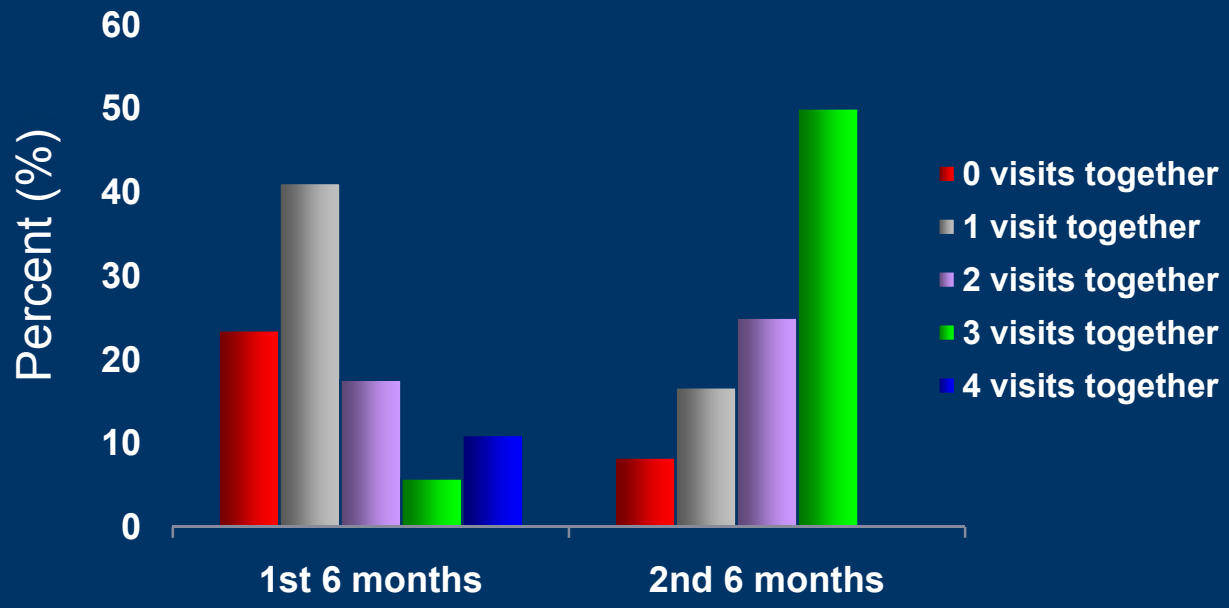
Retention of women in care	• No-show rates, retention measures
No perinatal HIV transmissions	• Infant HIV testing rates, use of ARV prophylaxis
Improve health outcomes	• For mother and infant

Concordant Mother-Infant Visits

- Concordance of visits in first 6 months
  - % of same-day mother-infant visits in 1st 6 mo
    - Average # same day appointments per mother-infant pair = 1.7 (range 0-4)
    - 51% of mother-infant pairs with 2 or more shared visits

Improving Concordance of Visits

% Shared Mother-Baby Visits

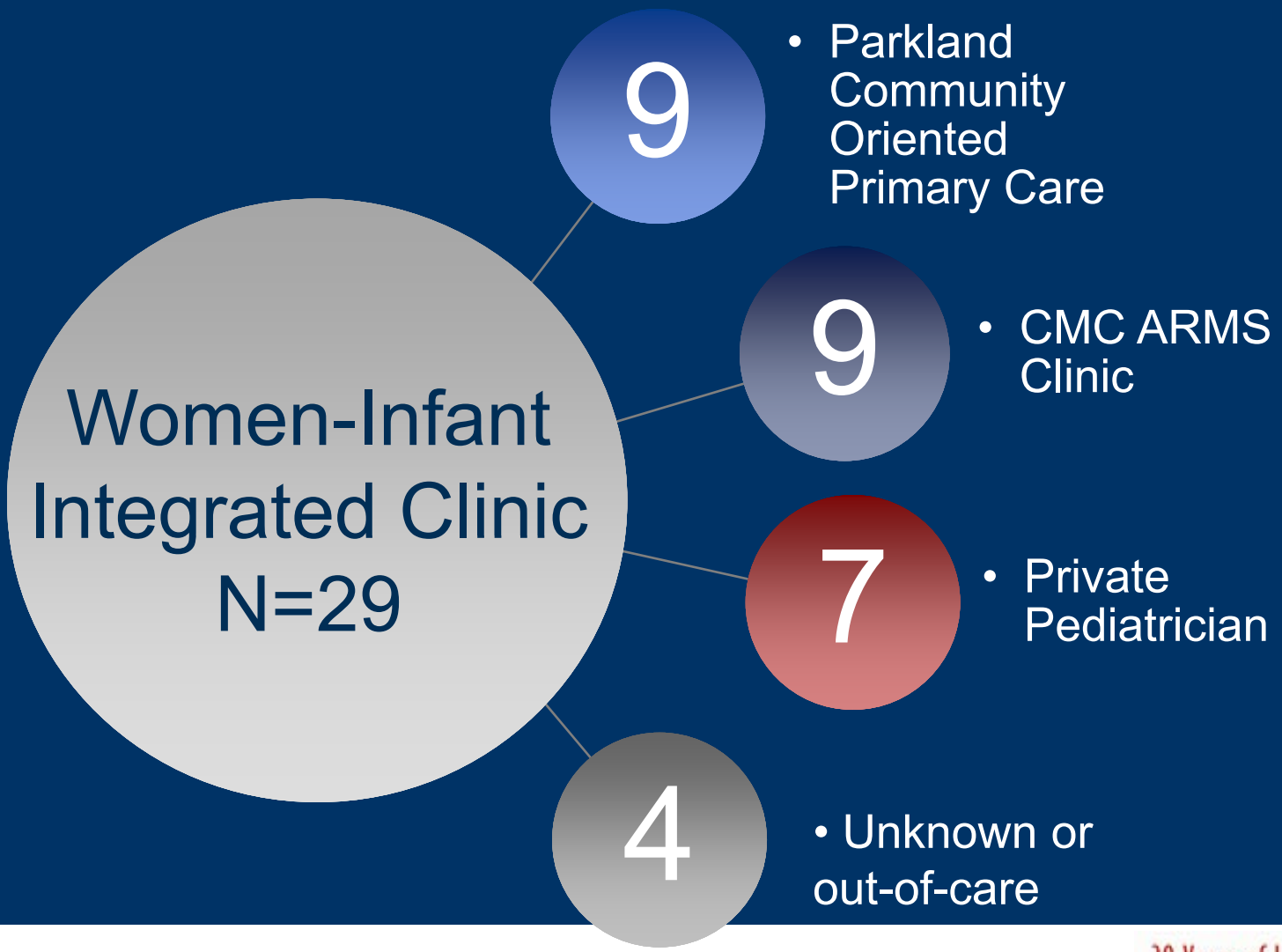


- In 1st 6 months of program, only 6/17 (35%) of mother-infant pairs had 2 or more visits together
- 1n 2nd 6 months, 9/12 (75%) had 2 or more visits together

HIV Transmission

- PCR testing completed : 26/29 (90%)
  - Incomplete testing resulted in CPS referrals in 3 cases
- HIV transmissions: 0
- Infant Death: 1
  - SIDS

Infant Care After 6 Months



Infant Outcomes

- Emergency Room Utilization
  - WSC: 39 total ER visits, mean 1.1 (range 0-9) visits per patient
  - ARMS: 26 total visits, mean 0.4 (range 0-4) visits per patient

Key Aspect of the Integration Model: Coordination

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Case Conferences

To coordinate and facilitate communication between agencies, departments and disciplines

Address concerns and need for involvement of governmental agencies (i.e. Children's Protective Services)

Plan for future medical and psychosocial needs of baby and mom

Purpose

Case Conferences

Structure

- Weekly 30-60 minute meetings
- Providers participate in person and via teleconference

Patients discussed

- Patients seen on the clinic day and those scheduled for the following week

Issues discussed

- Domestic abuse, difficult psychosocial issues, adherence, clinical issues

Case Conference Team

- OB Nurse Practitioner*
- Peer Advocate
- Pediatric Case Manager*
- Women Case Manager - LMWS
- Client Advocate
- HIV Physician*
- WSC Case Manager - LMSW
- UTSW Pediatric Nurse Practitioner

* Participate as needed

Facilitators of the Model

Planning

- Planning Resources

Collaboration

- Interdisciplinary

One Stop Shop/ MH

- Clinical and support services co-located

Challenges of the Model

Planning

- Team support and provider involvement
- Training
- Electronic Medical Records
- Timing of Visits
  - Post partum, HIV Follow-up, Infant testing and well child visits
- Transition of infant at 6 months

Challenges of the Model

Collaboration

- Interdisciplinary communication
- Interagency coordination
- Patient retention and follow-up
- Urgent Care
- Transition

Challenges of the Model

Medical Home

- Coordination of clinical appointments
- Onsite support services
- Health outcomes
  - Adult
  - Pediatric

Case Studies

Case Study #1

- 20 year old African-American Female presented to clinic because partner notified by health department of possible exposure to HIV
- Tested for HIV and other STIs and provided with a pregnancy test

Case Study #1 (cont'd)

- Pregnancy test positive and positive for HIV
- Patient is unemployed
- Currently living with father of the baby because has "no where else to live"
- Patient reports is in an abusive relationship with father of the baby

Case Study #1 - Questions

- As Case Manager, what would you do?

- What referrals would you make?

Case Study #1
OB/Comp Nurse

- Patient referred to OB/Comp for medical care for remainder of pregnancy by a Nurse Practitioner with over 15 years of experience caring for women who are both pregnant and HIV positive
- Followed up by the Nurse Practitioner until her 2 week postpartum exam

Case Study #1 (cont'd)
OB Case Manager

- OB/Comp Social Worker addressed Domestic Violence issues
- Referred to Parkland's Victim Intervention Project
- Provided a list of Domestic Violence Shelters
- Referral to psychiatry for depression
- Referral for transportation, financial assistance, funding for medications, WIC, & food banks

Case Study #1

Intensive Case Management

- Referred because patient was newly diagnosed, depressed and had domestic violence issues
- Client Advocate made several home visits
- Encouraged patient to take medication as prescribed and to give baby medication
- Obtained new appointment when patient missed appointment
- Build rapport with patient

Case Study #1
Women's Specialty

- Contacted by OB/Comp Social worker and provided with completed intake packet
- Will assist patient with any current or future psychosocial needs
- Will contact patient to remind of any medical appointments

Case Study #2

- 24 year-old perinatally infected woman
- Followed for HIV care at WSC prior to pregnancy
- During pregnancy followed at OB Clinic
- Extensive HIV drug resistance, on advanced salvage regimen

Case Study #2 - Questions

- What would you do to ensure that the infant receives proper prophylaxis?
- How should the care of the infant be coordinated?

Case Study #2

- OB provider, pediatrician and nursery physician communicated at 32 weeks regarding planned prophylactic regimen for infant
  - Liquid medications acquired by hospital
  - Mother expressed desire to deliver at private hospital to pediatric clinic staff; convinced to deliver in county hospital due to medications required by infant

Case Study #2

- Uneventful delivery
- Infant received 6 weeks AZT, 3TC, LPV/r
- Infant HIV testing negative to date
- Mother no-show rate: 0%
- Infant abnormalities noted at first newborn clinic visit
  - Further evaluation done at CMCD
- Transition to pedi clinic in process

Case #2: Successful Collaboration

- Communication prior to delivery among providers
  - OB staff communicated anticipated delivery date to Pedi
  - Pedi discussed mom's viral resistance pattern with Integration HIV women's provider
  - Pedi communicated request for expanded regimen to hospital nursery physician
  - Pedi clinic staff provided advice and support to patient

Case Study #2: Successful Collaboration

- Communication for scheduling and infant referrals
  - Women's provider adapted medical visits to same dates as baby's visits
  - Tests and abnormalities ordered through children's hospital system – pedi provider with electronic access to both health records
  - Mom's case manager following through with referral of infant to outside pediatric clinic

Case Study #3:

- 23 yo AAF with Asymptomatic HIV infection, diagnosed in 2006, while pregnant.
- Delivered negative infant in 2007, lost to care afte delivery
- Pregnancy test positive in July 2008, delivered negative infant in May 2009
- cART in both pregnancies.
- Nadir CD4= 295 in April 2007 (while pregnant)

Case Study #3:

- Seen 6 days post-partum by HIV PCP and OB NP
- Starts depo-provera
- Kept 3 out of 4 scheduled visits during integration period
- Still in care, current CD4 = 704, undetectable VL

Case Study #3 - Questions

- What would recommend to improve retention of the mother in care?
- What reproductive choices/counseling should be offered?

Case Study #4:

- 31 yo African female referred to WSC for care and pre-conception counseling
- VL <50, CD4= 520, on EFV/TDF/FTC combination pill
- Overweight, no other PMHx
- Discordant couple
- Regimen changed to AZT/3TC/LPV/RTV
- One session pre-conception counseling:
  - Check basal temperature
  - Home based insemination technique taught

Case Study #4 - Questions

- What role pre-conception counseling plays in improving maternal and infant outcomes?
- What role would the partner play in engaging the patient in care if involved in pre-conception counseling?

Case Study #4

- Tolerates switch well, mild TG elevation, starts fish oil
- 6 months later, pregnant, referred to Ob-Comp
- 39 weeks pregnancy, normal vaginal delivery
- Followed up at Integration Clinic
- Negative infant, transitioned to pediatrician
- On temporary contraceptives

Summary

Integration

Communication and collaboration are crucial to the successful integration of health and support services in one location.

Questions