A Model for Increasing Immunization Information System Usage Within a Local Health District
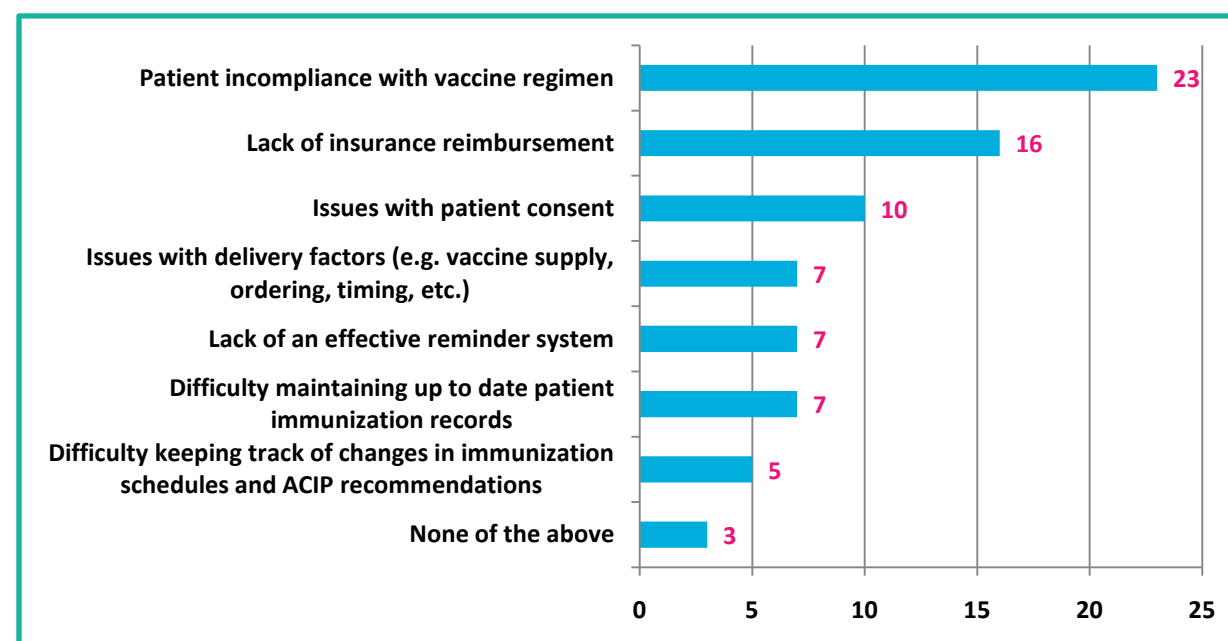
Deeva Berera

Centers for Disease Control and Prevention • Prince William Health District

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BACKGROUND DATA

Immunization Barriers Faced by Prince William Health District (PWHD) Health Care Providers*

Patient incompliance with vaccine regimen — 23
Lack of insurance reimbursement — 16
Issues with patient consent — 10
Issues with delivery factors (e.g. vaccine supply, ordering, timing, etc.) — 7
Lack of an effective reminder system — 7
Difficulty maintaining up to date patient immunization records — 7
Difficulty keeping track of changes in immunization schedules and ACIP recommendations — 5
None of the above — 3

(x-axis: 0, 5, 10, 15, 20, 25)

Data source: PWHD 2011 Immunization Practices Survey
*Health Care Providers surveyed: 33 Private Providers (20 Pediatric Practices, 13 Family Practices)

Strategy to Address PWHD Immunization Barriers:
Increase Health Care Provider Participation in the Virginia Immunization Information System (VIIS)

What is the VIIS?
- A secure web-based database that tracks individual patients' immunization information
- Operated by the Virginia Department of Health Division of Immunizations
- Purpose: To provide up to date comprehensive patient immunization histories
- VIIS access is free of cost and available to all participating heath care providers
- Data is received from health departments, clinical practices, health systems, health care plans, schools, other state registries, and vital records

Types of VIIS Access
- Direct Data Entry (Accounted for 23% of submitted records in 2010)
- Electronic Data Exchange from Provider's Electronic Health Record (EHR) System (Accounted for 77% of submitted records in 2010)
- Look-up Access

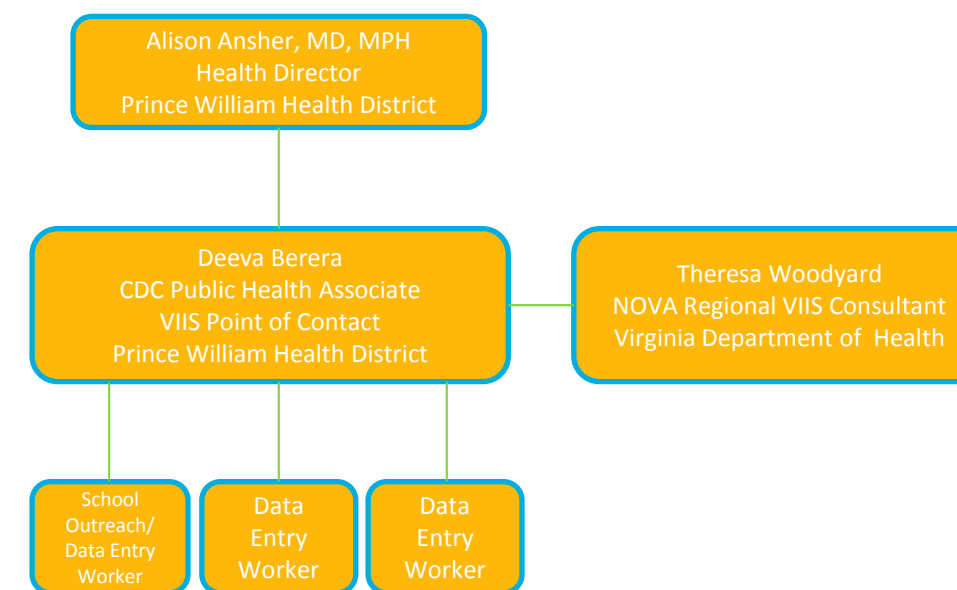### Benefits of the VIIS in Surmounting PWHD Immunization Barriers

Immunization Barrier	VIIS Feature
Patient Incompliance with Vaccine Regimen	• Reminder/Recall feature • Can print patient reminder letters and mailing labels
Lack of insurance reimbursement	• Runs reports to assess vaccination coverage by insurance type, age group, vaccine type, and/or ACIP recommendations
Issues with patient consent	• Links to resources on overcoming vaccine communication issues • Using VIIS can fortify clinical immunization program efficacy
Difficulty keeping track of changes in immunization schedules and ACIP recommendations	• Forecasts ACIP/AAP recommendations based on patient age and vaccination history
Difficulty maintaining up to date patient immunization records	• Consolidates immunization information into one complete record • Highlights immunizations due on individual patient record
Lack of an effective reminder system	• Reminder/Recall feature • Can print patient reminder letters and mailing labels
Issues with delivery factors (e.g. vaccine supply, ordering, timing, etc.)	• Vaccine inventory management • Notifies office staff when vaccine levels are low or set to expire • Produces Vaccine Accountability Reports for VVFC providers

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THE VIRGINIA IMMUNIZATION INFORMATION SYSTEM (VIIS) EXPANSION PROGRAM

OBJECTIVES

SHORT TERM
- **Increase PWHD health care provider participation in the VIIS**
- **Provide assistance with integrating VIIS usage into practice workflow**
- **Provide temporary data entry support to input patients' historical immunization data**
- **Provide guidance on setting up data exchange interfaces and qualifying for "Meaningful Use" incentives**

LONG TERM
- **Increase up to date immunization rates in PWHD across all age groups**
- **Reduce costs incurred by over-immunizing patients**

STRUCTURE

- Alison Ansher, MD, MPH — Health Director, Prince William Health District
- Deeva Berera — CDC Public Health Associate, VIIS Point of Contact, Prince William Health District
- Theresa Woodyard — NOVA Regional VIIS Consultant, Virginia Department of Health
- School Outreach/Data Entry Worker
- Data Entry Worker
- Data Entry Worker

TIMELINE

Date	Project Activities
December 2010	• Funding received through CDC H1N1 Public Health Emergency Response (PHER) Grant Extension
January 2011	• Program Launched
February – March 2011	• PWHD temporary staff hired and trained on VIIS data entry • Health care providers contacted
March – July 2011	• Site visits to health care provider offices • VIIS trainings conducted • Data entry support provided as needed

OUTREACH METHODS

- Conducted an online survey to evaluate PWHD health care providers' knowledge of/experience using the VIIS
- Advertised the VIIS Expansion Program during a Grand Rounds CME Activity
- Followed-up with survey respondents by:
  1. Placing phone calls to health care providers not enrolled in the VIIS
  2. Arranging 30 minute site visits

TARGETED HEALTH CARE PROVIDERS

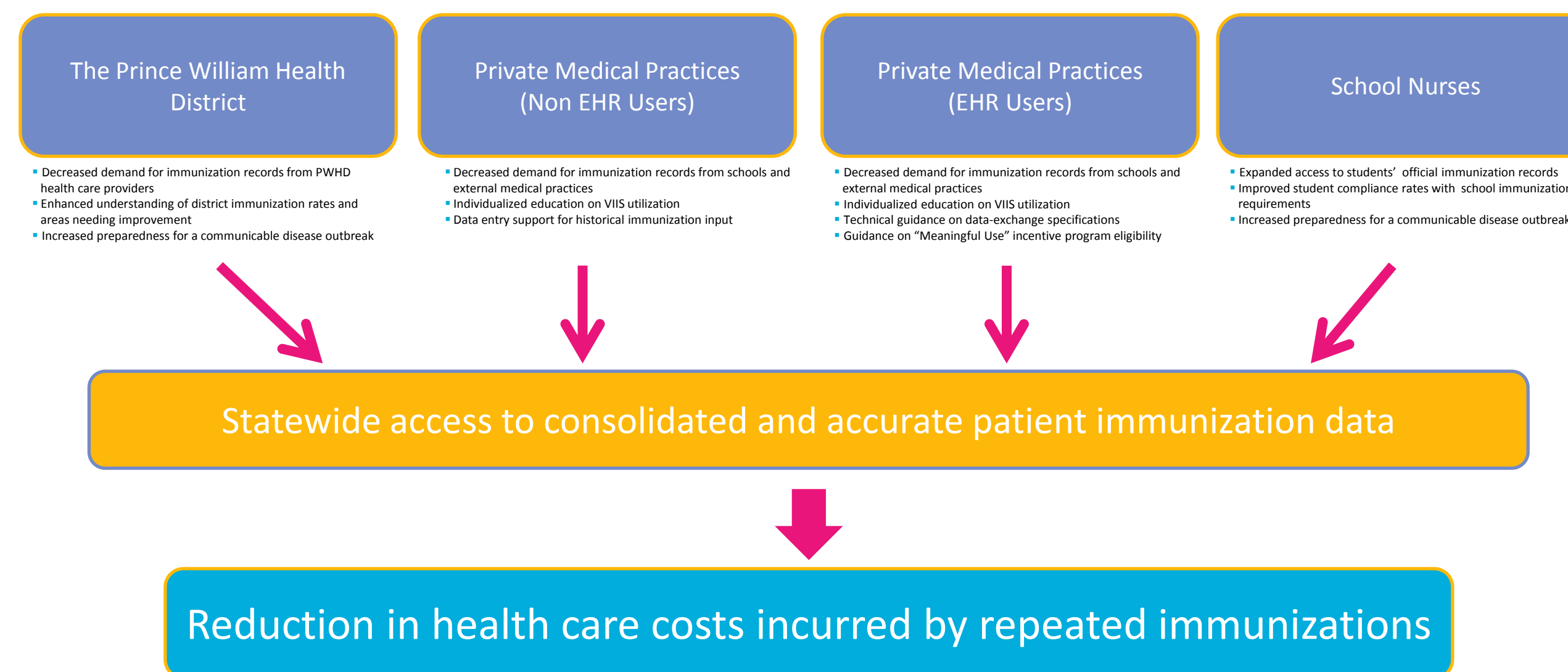| Health care Provider Category	Site Visit Activities	Outreach Status
PWHD Clinical Staff	• VIIS overview • VIIS "look-up" training	Complete
Private Medical Practices (Non EHR* Users)	• VIIS overview • Offer data entry support • "Direct Data Entry" VIIS training	In Progress
Private Medical Practices (EHR Users)	• VIIS overview • Provide data exchange guidelines • VIIS "look-up" training	In Progress
Public School Nurses	• VIIS overview • VIIS "look-up" training	Complete
Private School Nurses	• VIIS overview • "Direct Data Entry" VIIS training	In Progress

*EHR = Electronic Health Records

THE VIIS EXPANSION PROGRAM - BENEFITS FOR HEALTH CARE PROVIDERS

The Prince William Health District
- Decreased demand for immunization records from PWHD health care providers
- Enhanced understanding of district immunization rates and areas needing improvement
- Increased preparedness for a communicable disease outbreak

Private Medical Practices (Non EHR Users)
- Decreased demand for immunization records from schools and external medical practices
- Individualized education on VIIS utilization
- Data entry support for historical immunization input

Private Medical Practices (EHR Users)
- Decreased demand for immunization records from schools and external medical practices
- Individualized education on VIIS utilization
- Technical guidance on data-exchange specifications
- Guidance on "Meaningful Use" incentive program eligibility

School Nurses
- Expanded access to students' official immunization records
- Improved student compliance rates with school immunization requirements
- Increased preparedness for a communicable disease outbreak

Statewide access to consolidated and accurate patient immunization data

Reduction in health care costs incurred by repeated immunizations

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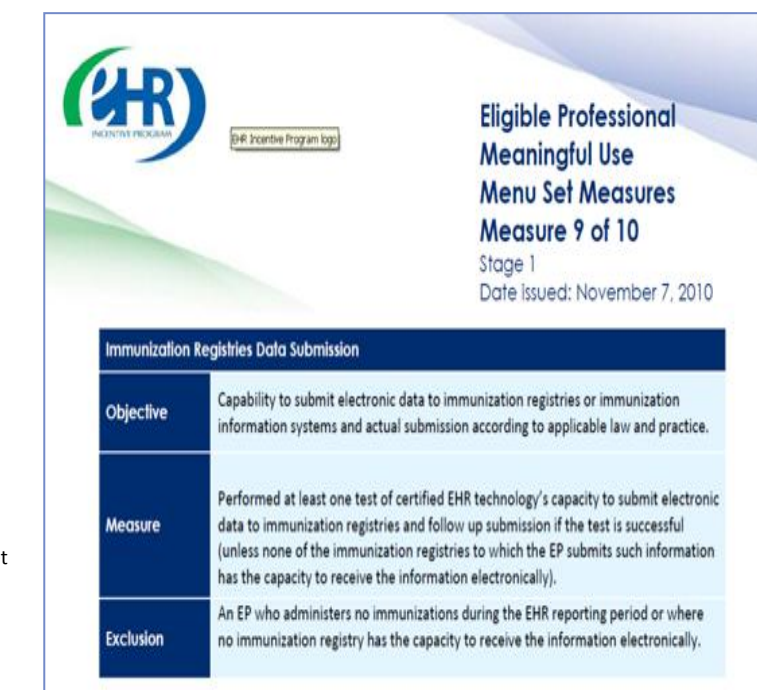
PROGRAM PRIORITY- VIIS/EHR INTEROPERABILITY

MEDICAID EHR INCENTIVE PROGRAM
- **Target Group:** Eligible Health Care Providers (EHR Users)
- **Provider Eligibility:** 30% of services furnished to Medicaid patients in an outpatient setting (20% for pediatricians)
- **Requirements for Stage 1 Meaningful Use:** Meet 15 required core objectives. Meet 5 out of 10 menu set objectives
- **Role of the VIIS:** Setting up a data exchange interface between an EHR system and the VIIS and meets menu set objective #9

PROGRAM FINDINGS
- **Health care providers are initially reluctant to adopt the VIIS due to concerns over time and staffing required to support the system**
- **Providers without EHRs are more likely to adopt the VIIS if data entry support is offered**
- **More focus is needed on developing data exchange interfaces between EHR systems and the VIIS**
- **Providers must be trained on maximizing their use of the VIIS in order to sustain their participation**
- **Office or Nurse Managers are the best point of contacts in larger practice settings**
- **VIIS outreach visits can also be used to distribute information on updated immunization schedules, school vaccination requirements, and communicable disease reporting requirements**

FUTURE GOALS OF THE PROGRAM
- **Increase the number of health care providers performing data exchange with the VIIS**
- **Target larger PWHD medical groups and hospitals**

REFERENCES
http://www.vdh.virginia.gov/viis
https://www.cms.gov/ehrincentiveprograms