Integration of a Communicable Disease Screening Program into Local Health Department Services:

Seizing Opportunities to Expand Disease Prevention

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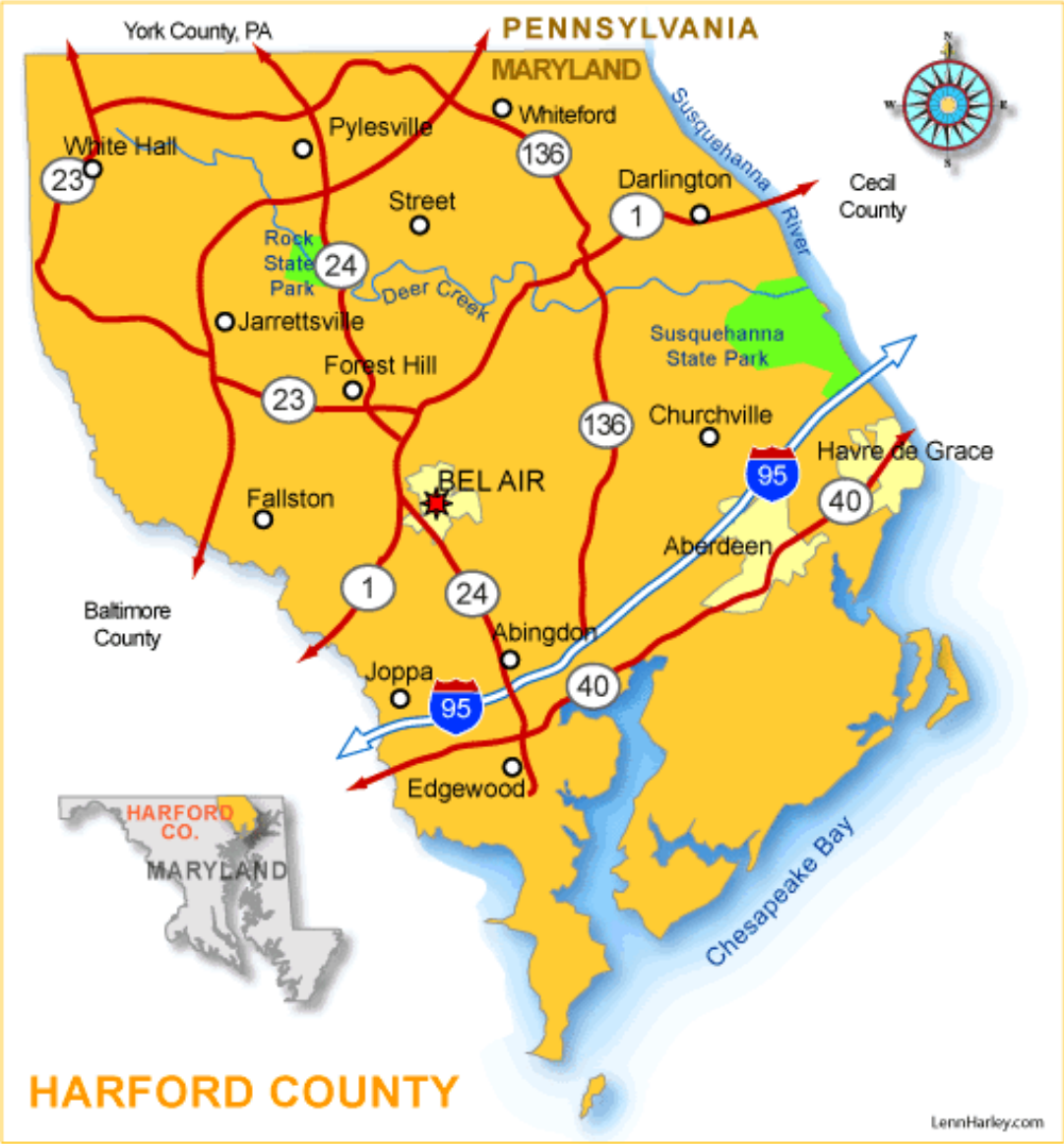
York County, PA
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Deer Creek
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Susquehanna State Park
Forest Hill
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Churchville
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BEL AIR
Fallston
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Baltimore County
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Joppa
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Edgewood
HARFORD CO.
MARYLAND
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HARFORD COUNTY
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Outline

- Goals
- Background
- Research question
- Methodology
- Results
- Key Messages
- Challenges
- Addressing core public health functions

Goals

- Integrate screening and testing for communicable diseases into Harford County Health Department services
- Introduce prevention and risk-reduction counseling across the health department
- Improve communicable disease surveillance in the county

Background

- STDs are among the 10 most frequently reported diseases in the United States
- 12 million STD cases are diagnosed each year in the United States
- $10 billion to $17 billion in costs
- Complications of untreated STDs include infertility, ectopic pregnancy, transmission to others, chronic disability, and death

Background

- Difficult-to-reach populations:
  - People without HIV/STDs but at high risk
  - People unaware of HIV/STD status
  - People aware of diagnosis but delay care
  - People who initiate care but are lost to follow-up

- Limited studies looking at integration of screening for HIV/STDs into other health care settings demonstrate effectiveness and high acceptability

Background

	Harford			Maryland		
	Syphilis	Gonorrhea	Chlamydia	Syphilis	Gonorrhea	Chlamydia
2000	1.8	58.1	149.6	5.7	185.7	274.4
2001	9.9	70.1	131.1	5	176.4	292.7
2002	5	44.2	155.6	4.2	174	314.1
2003	3.5	54.9	175.7	5.6	146.4	306.8
2004	2.1	39.6	204.4	6.8	149.3	359
2005	1.3	34.4	214.2	5.6	126.3	327.6

Rate per 100,000 population
Source: Division of Sexually Transmitted Diseases, Epidemiology and Disease Control Program, DHMH

Background

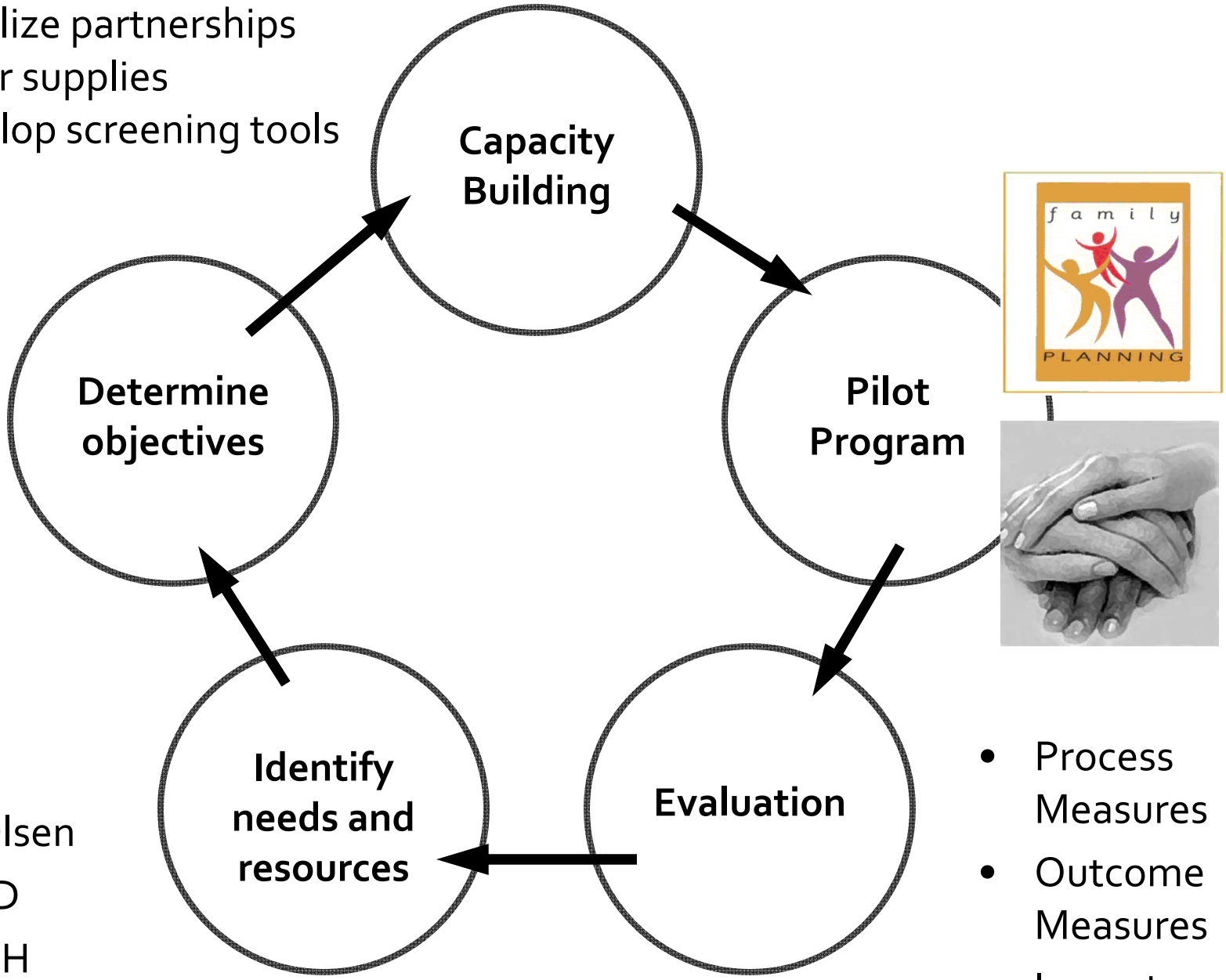
Table 8.1: Incident (Newly Diagnosed during 2004) and Prevalent (Living on December 31, 2004) HIV and AIDS Cases in Baltimore City and the Baltimore-Towson metropolitan area

JURISDICTION	2004 Incident HIV Cases		2004 Incident AIDS Cases		2004 Prevalent HIV Cases		2004 Prevalent AIDS Cases		Total Prevalent HIV/AIDS Cases	
	No.	%	No.	%	No.	%	No.	%	No.	%
MARYLAND TOTAL	2,143	100.0%	1,293	100.0%	16,342	100.0%	12,781	100.0%	29,123	100.0%
Baltimore-Towson	1,356	63.3%	789	61.0%	10,270	623.8%	7731	60.5%	18,001	61.8%
Rest of State	787	36.7%	504	39.0%	6,072	37.2%	5,050	39.5%	11,122	38.2%
Baltimore-Towson	1,356	100.0%	789	100.0%	10,270	100.0%	7,731	100.0%	18,001	100.0%
Anne Arundel County	63	4.6%	50	6.4%	423	4.1%	428	5.5%	851	4.7%
Baltimore City	1,086	80.1%	598	75.8%	8,309	80.9%	6,037	78.1%	14,346	79.7%
Baltimore County	145	10.7%	98	12.4%	1,139	11.1%	900	11.6%	2,039	11.3%
Carroll County	5	0.4%	8	1.0%	85	0.8%	47	0.6%	132	0.7%
Harford County	34	2.5%	18	2.3%	156	1.5%	160	2.1%	316	1.8%
Howard County	20	1.5%	16	2.0%	143	1.4%	138	1.8%	281	1.6%
Queen Anne's County	3	0.2%	1	0.1%	15	0.2%	21	0.3%	36	0.2%

Research Question

- What is the **feasibility** and **effectiveness** of incorporating communicable disease screening, testing, counseling, and vaccination into existing local health department services?

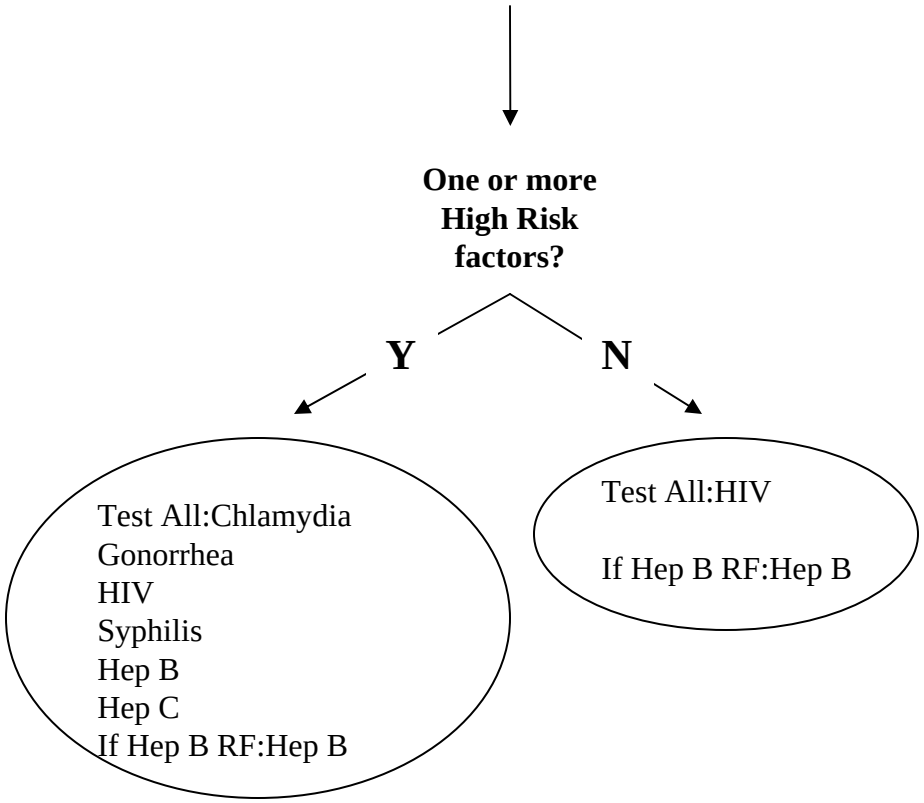
- Build Infrastructure
- Mobilize partnerships
- Order supplies
- Develop screening tools



- Staff
- Dr. Olsen
- HCHD
- DHMH

- Process Measures
- Outcome Measures
- Impact

MALES


One or more High Risk factors?
Y
N
Test All:Chlamydia
Gonorrhea
HIV
Syphilis
Hep B
Hep C
If Hep B RF:Hep B
Test All:HIV
If Hep B RF:Hep B

FEMALES

25 years old or younger?

Y — **1** → Everyone gets:
Chlamydia
Gonorrhea

2 → **Pregnant?**

Y → HIV
Syphilis
Hep B

N → **One or more High Risk factors?**

Y → Test All:Chlamydia
Gonorrhea
HIV
Syphilis
Hep B
Hep C
If Hep B RF:Hep B

N → Test All:HIV

If Hep B RF:Hep B

N → **One or more High Risk factors?**

Results: Addiction Services

Process Measure	**Performance**	**Evaluation method/Comment**
Questionnaires and algorithms available	Yes	Observation and chart review
Staff comfortable with use of algorithms	Yes	Observation
Blood and urine collection supplies available and sufficient	Yes	Observation, verification by staff
Hepatitis A/B vaccines available and sufficient	Yes	Observation, verification by staff
Number of staff trained in CD counseling	2	Observation
Outcome Measure		
Proportion of patients screened for risk behavior	100% (50/50)	EMR query, chart review
Proportion of patients deemed at-risk through screening who were tested	56% (28/50)	Chart review, log book kept by staff
Proportion of patients deemed at-risk who were vaccinated for hepatitis A/B	89% (25/28)	Log book kept by staff, although no documentation of reason for decline
Proportion of patients tested provided with test results and post-test counseling	?	*Unable to be evaluated*
Proportion of patients deemed at-risk through screening who received pre-test counseling	100%	Observation, verification by staff
Proportion of tests ordered that were entered into PatTrac	100%	Chart review, verification by staff

Results: Family Planning

Process Measure	**Performance**	**Evaluation method/Comment**
Questionnaires and algorithms available	Yes	Observation and chart review
Staff comfortable with use of algorithms	Yes	Observation
Blood and urine collection supplies available and sufficient	Yes	Observation, verification by staff
Hepatitis A/B vaccines available and sufficient	Yes	Observation, verification by staff
Number of staff trained in HIV testing and counseling	3	Certified by DHMH
Outcome Measure		
Proportion of patients screened for risk behavior	42% (66/159)	Questionnaires for each patient screened were kept separately
Proportion of patients deemed at-risk through screening who were tested	51% (30/65)	Chart review, EMR
Proportion of patients deemed at-risk through screening who received pre-test counseling	100%	Verification by staff
Proportion of patients with positive HIV tests who received results and post-test counseling	N/A	Note: there were no positive HIV tests during the first three weeks of the pilot program
Proportion of tests ordered that were entered into PatTrac	100%	Chart review, verification by staff, review of EMR

Cost Analysis:

Screening/Testing for STDs	$80.12/person
Risk-reduction Counseling	$12.39/person
Hepatitis A/B Vaccination	$130.60/person

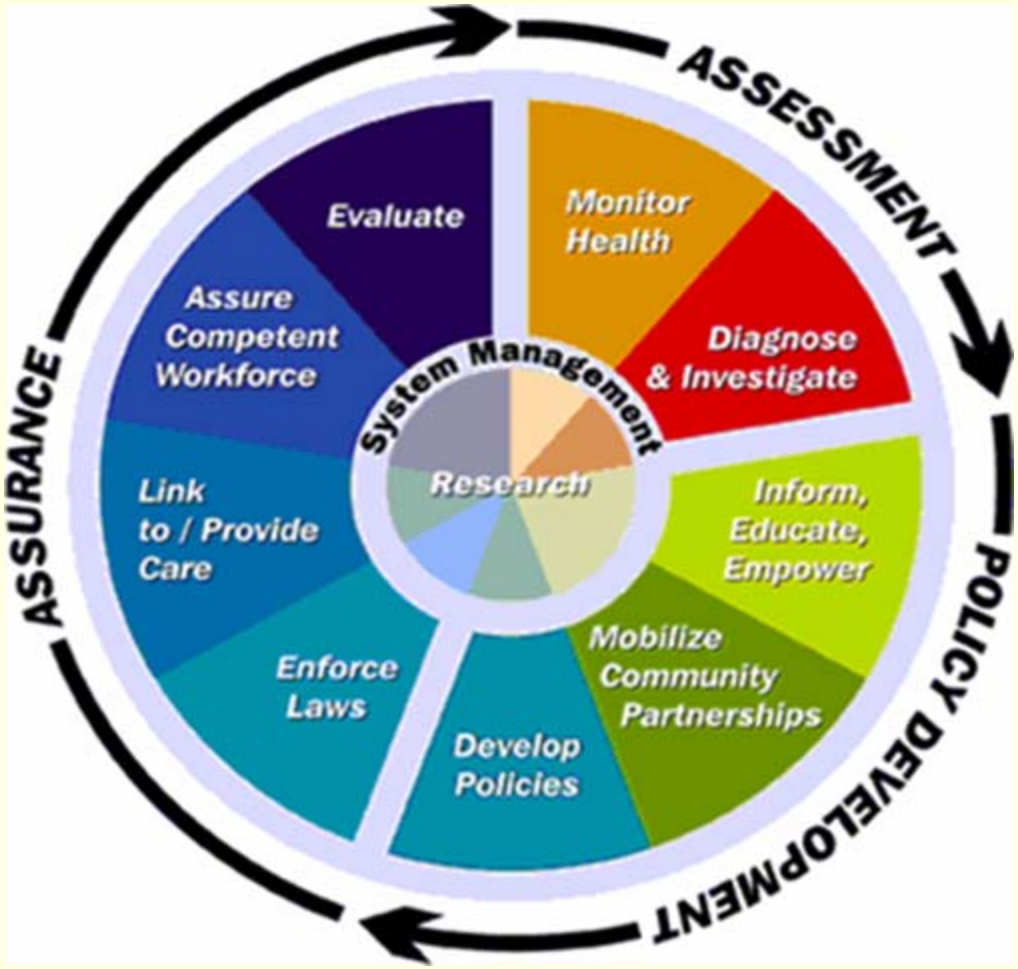
Key Messages

- Integration of communicable disease prevention and screening into other health department services is feasible and relatively low-cost
- Staff in two different sectors of the health department successfully used decision tools to screen for at-risk patients, offer risk-reduction counseling and testing, and vaccination against hepatitis A/B

Challenges identified by Pilot

- Addition of 20 (Family Planning) to 45 (Addictions) extra minutes for each patient
- Need for entry of data into multiple electronic information systems
- Screening and counseling techniques that have the greatest impact in the literature are not necessarily feasible in the practice setting and may need to be modified

Addressing Core PH functions



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Thank you!