



Bridging the Gap in Perinatal Hepatitis B Programming

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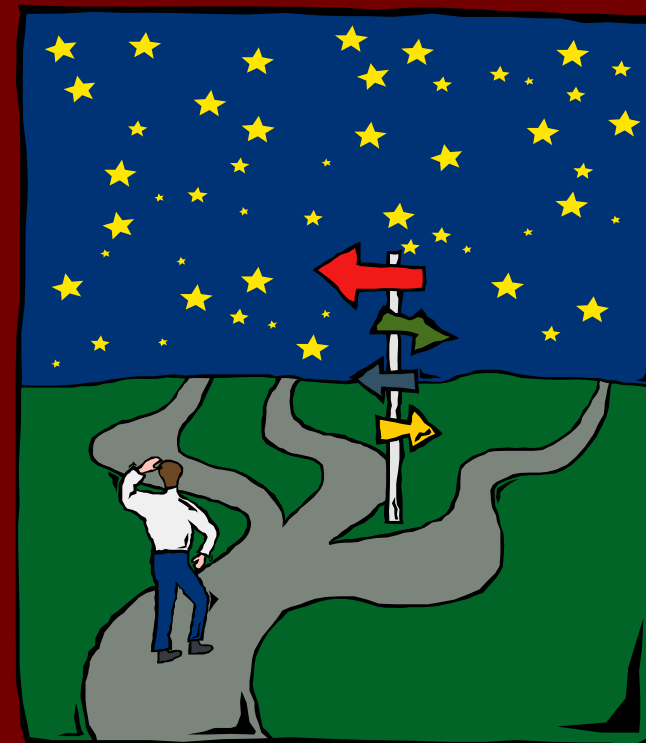
NASTAD Conference
September 30, 2008



Road Map

Michigan's (MI) Perinatal Hepatitis B Prevention Program (PHBPP)

- Mission
- History
- Structure
- Successes
- Challenges
- Bridging the gap



MI PHBPP Mission:

To identify hepatitis B surface antigen-positive (HBsAg-positive) women prenatally or at delivery for each pregnancy so that their infants, household and sexual contacts can be tested and treated to prevent the spread of the hepatitis B virus (HBV).

Perinatal Hepatitis B Prevention Program (PHBPP) Timeline

1992
Maternal HBsAg status was added to newborn screening (NBS) card

2002
- Identified hospitals offering 100% hepatitis b birth dose
- Conducted thimerosal hospital chart review

2005
Hospital chart reviews in SE MI

2008
Awarded CDC enhanced grant

1998
Birth dose added to electronic birth certificate (EBC)

1988 Testing & reporting law

1991
MI PHBPP began

1997
Started Hepatitis In-services

1999
Started hospital surveys & record reviews

2003
- Enrolled hospitals in universal hepatitis b with VFC
- Thimerosal study published
- Received IAC award

2007
PHBPP Manual

MI PHBPP Structure

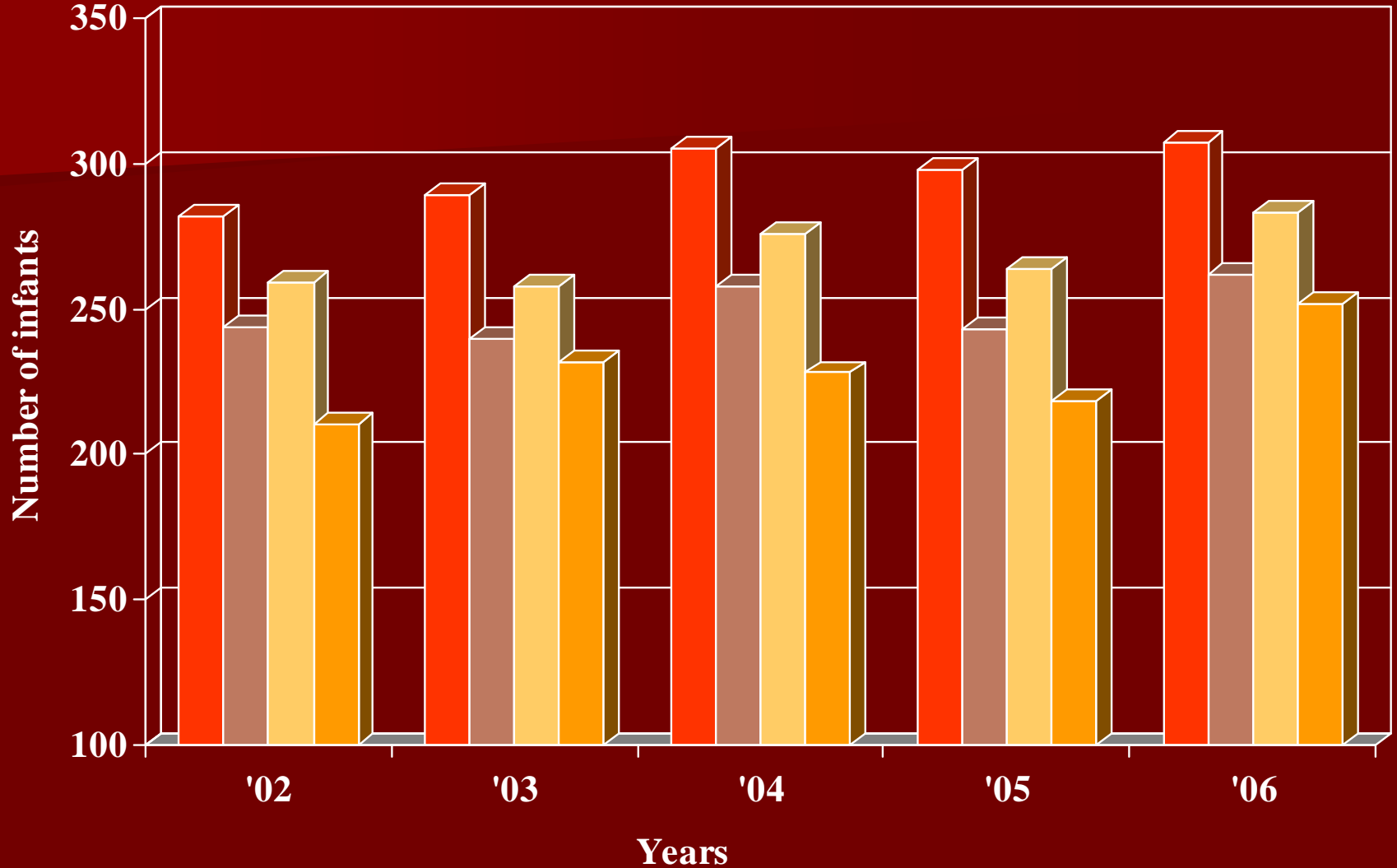
➤ Program Staff

- Coordinator
- 2 State Level Case Managers
- Surveillance Specialist, SE focus (2005)
- Enhanced Program Data Analyst, SE focus (2008)

➤ 2006 Population Data

- 10,102,322 people
- 127,537 births (180,440 pregnancies)
- 312 cases identified

MI PHBPP Results



■ Births to HBsAg-positive women

■ HBIG & 3 by 8 months

■ HBIG & 3 by 12 months

■ Post serology

Successes

- Birth Dose Rates/Vaccine for Children (VFC)
Universal Hepatitis B Vaccination Program
- Case Management
- Tools

Hepatitis B Birth Dose

Michigan Care Improvement Registry (MCIR) Coverage Levels

72% in 2002

74% in 2003

76% in 2004

78% in 2005

80% in 2006

2006 National Immunization Survey (NIS) Coverage Levels

National: 48.5% \pm 1.1

Michigan: 78.2% \pm 5.0

Detroit: 81.6% \pm 5.6



Hepatitis B Birth Dose Coverage Levels

Microsoft Excel - 2005 2006 2007 by County 040308b.xls

File Edit View Insert Format Tools Data Window Help

Type a question for help

Birth Dose of Hep B

C = Hand entered into MCIR
I = Interfaced with other electronic systems (billing data, etc.)
E = Electronic birth certificate
T = Total
N = Having a NICU

County	Hospital Name	2005				2006				2007			
			# of babies born	birth dose of Hep B	Born/ Vac %		# of babies born	birth dose of Hep B	Born/ Vac %		# of babies born	birth dose of Hep B	Born/ Vac %
Name	Hospital Name	C	1	0	75	C	0	0	94	C	3	2	90
		I	0	0	I	0	0	I		0	0		
		E	202	153	E	211	199	E		207	188		
		T	203	153	T	211	199	T		210	190		
	Hospital Name	C	0	0	0	C	0	0	0	C	0	0	0
		I	0	0	I	0	0	I		0	0		
		E	0	0	E	0	0	E		0	0		
		T	0	0	T	0	0	T		0	0		
	Co Totals	C	1	0	75	C	0	0	94	C	3	2	90
		I	0	0	I	0	0	I		0	0		
		E	202	153	E	211	199	E		207	188		
		T	203	153	T	211	199	T		210	190		
Name	Hospital Name	C	2	2	87	C	2	2	89	C	0	0	86
		I	0	0	I	0	0	I		0	0		
		E	411	359	E	431	383	E		424	364		
		T	413	361	T	433	385	T		424	364		
	Co Totals	C	2	2	87	C	2	2	89	C	0	0	86
		I	0	0	I	0	0	I		0	0		
		E	411	359	E	431	383	E		424	364		
		T	413	361	T	433	385	T		424	364		

Sheet2 / Sheet3

Case Management Success

- Partnership with local health departments (LHDs)
- Infant vaccination completion rates

2002	2003	2004	2005	2006
92%	89%	90%	89%	92%

Useful Tools - 1

- Michigan Disease Surveillance System (MDSS)
 - Faster reporting
 - Case identification and oversight, 29 cases in 2006
 - Reports
- MCIR
 - Reduces time to verify vaccination & number of calls made to provider offices
 - Aids in identifying provider
 - Updated address and provider information
 - Missed opportunities
 - Reports

MDSS

Viral Hepatitis Case Report

Chronic Hepatitis B

Michigan Department of Community Health

Communicable Disease Division

Investigation Information

Investigation ID	Onset Date mm/dd/yyyy	Diagnosis Date mm/dd/yyyy	Referral Date mm/dd/yyyy	Case Entry Date mm/dd/yyyy	Case Completion Date mm/dd/yyyy
-------------------------	---------------------------------	-------------------------------------	------------------------------------	--------------------------------------	---

Investigation Status <input type="radio"/> New <input type="radio"/> Active <input type="radio"/> Completed <input type="radio"/> Superseded <input type="radio"/> Cancelled	Case Status <input type="radio"/> Confirmed <input type="radio"/> Not a Case <input type="radio"/> Probable <input type="radio"/> Suspect <input type="radio"/> Unknown
--	---

Patient Status I=Inpatient O=Outpatient D=Died	Patient Status Date mm/dd/yyyy	Part of an outbreak? Y=Yes N=No U=Unknown	Outbreak Name	Case Updated Date mm/dd/yyyy <input type="checkbox"/> N/A
---	--	---	----------------------	--

Patient Information

Patient ID	First	Last	Middle
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Reason for Testing:
(Check all that apply)

<input type="checkbox"/> Symptoms of acute hepatitis	<input type="checkbox"/> Evaluation of elevated liver enzymes
<input type="checkbox"/> Screening of asymptomatic patient with reported risk factors	<input type="checkbox"/> Blood / Organ donor screening
<input type="checkbox"/> Screening of asymptomatic patient with no risk factors (e.g., patient requested)	<input type="checkbox"/> Follow-up testing for previous marker of viral hepatitis
<input type="checkbox"/> Prenatal screening	<input type="checkbox"/> Unknown
<input type="checkbox"/> Other _____	

Is the patient symptomatic? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown	Is or was the patient jaundiced? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown	Is or was the patient pregnant? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown	If yes, specify the due or delivery date: mm/dd/yyyy
--	---	--	--

Diagnosis:
(Check all that apply)

<input type="checkbox"/> Acute hepatitis A	<input type="checkbox"/> Acute hepatitis B	<input type="checkbox"/> Acute hepatitis C
<input type="checkbox"/> Acute hepatitis E	<input type="checkbox"/> Chronic HBV infection	<input type="checkbox"/> HCV infection (chronic or resolved)
<input type="checkbox"/> Acute non-ABCD hepatitis	<input type="checkbox"/> Perinatal HBV infection	<input type="checkbox"/> Hepatitis Delta (co- or super-infection)

Useful Tools - 1

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Adult MCIR Screen

Immunization History - Site: MDCH Perinatal Hep B Program - Microsoft Internet Explorer

MCIR ID : 30334358829

Red indicates not approved for provider use.

History Format

Vaccine Series Date Administered Vaccine/Date Summary

Vaccine	#	Age	Date	Entered by	
DTP/DTaP/DT/Td/Tdap					
Td (adult): Tetanus-Diphtheria	1	30 Years 11 Months	05/20/1997	MDCH Nurse Educators	Delete
Tdap	2	40 Years 4 Months	10/13/2006	MDCH Nurse Educators	Delete
MMR					
MMR	1	23 Years 10 Months	04/05/1990	MDCH Nurse Educators	Delete
Hepatitis B					
Hep B (adult)	1	25 Years 6 Months	01/02/1992	MDCH Nurse Educators	Delete
Hep B (adult)	2	25 Years 7 Months	01/31/1992	MDCH Nurse Educators	Delete
Hep B (adult)	3	26 Years	07/01/1992	MDCH Nurse Educators	Delete
Pneumococcal Polysaccharide					
Pneumococcal Polysaccharide	1	40 Years 4 Months	10/13/2006	MDCH Nurse Educators	Delete
Influenza					
Influenza - split	1	40 Years 4 Months	10/13/2006	MDCH Nurse Educators	Delete
Influenza - split	2	41 Years 5 Months	11/09/2007	Metro PHO-Lowell Family Med Center	Delete
Non-Administrations/Titers					
Varicella			12/31/1974	Immunity	MDCH Nurse Educators Delete

Start | Internet | 28° | 1:21 PM

Newborn Screening (NBS) Card

Newborn Screening - Michigan Department of Community Health
 Bureau of Laboratories P.O. Box 30689 3350 N. MLK Jr. Blvd. Lansing MI 48909
 DCH-1153 L-XXXXXXX Print Firmly with Pen

BABY	LAST NAME												FIRST NAME												GENDER <input type="radio"/> MALE <input type="radio"/> FEMALE	
	BIRTH DATE M M D D Y Y				BIRTH TIME (Military) H H M M				BIRTH WT. (gms)				WKS. GESTATION				<input type="radio"/> SINGLE BIRTH <input type="radio"/> MULTIPLE BIRTH		BIRTH ORDER <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D							
MOTHER	SPECIMEN DATE M M D D Y Y				COLLECTION TIME (Military) H H M M				Collected By: (initials)				NICU/SPECIAL CARE? <input type="radio"/> NO <input type="radio"/> YES		RBC TRANSFUSION? <input type="radio"/> NO <input type="radio"/> YES		DATE M M D D Y Y									
	MEDICAL RECORD #												TPN FEEDING? <input type="radio"/> NO <input type="radio"/> YES		<input type="radio"/> HISPANIC <input type="radio"/> NON-HISPANIC		<input type="radio"/> WHITE <input type="radio"/> BLACK		<input type="radio"/> AMERICAN INDIAN <input type="radio"/> ASIAN/PACIFIC ISLAND		<input type="radio"/> MIDDLE EASTERN <input type="radio"/> MULTI-RACIAL					
PHYSICIAN	LAST NAME												FIRST NAME													
	ADDRESS												PHONE													
SUBMITTER	CITY				STATE				ZIP				SOCIAL SECURITY NUMBER													
	MEDICAL RECORD #				BIRTH DATE M M D D Y Y				HEPATITIS B SURFACE ANTIGEN (HBsAg) TEST DATE M M D D Y Y RESULT <input type="radio"/> POSITIVE <input type="radio"/> NEGATIVE																	
SUBMITTER	LAST NAME												FIRST NAME													
	PHONE												PHONE													
SUBMITTER NAME												HOSPITAL CODE (if applicable)														
ADDRESS												PHONE														
CITY				STATE				ZIP				MDCH use only														
BIRTH HOSPITAL (if different from submitter)																										

MDCH USE ONLY

MI Dept. of Comm. Hlth.
 Card Expires 01/05
 By Authority of Act 368
 MCLA 333.5431



1234567

FIRST SAMPLE

Useful Tools - 2

➤ Newborn Screening (NBS)

- Identify previously unreported cases, 22 in 2007
- Educational tool when marked incorrectly

➤ Electronic Birth Certificate (EBC)

- Helps populate MCIR
- Just added infections present/identified in this pregnancy

New EBC/Hep B Virus

Adobe Reader - [DCH0486NewEBCDraft.pdf]

File Edit View Document Tools Window Help

It's easier with Reader 7.0

200%

eBooks

INFECTIONS PRESENT AND/OR TREATED DURING THIS PREGNANCY
(Check all that apply)

<input type="checkbox"/>	01	Gonorrhea
<input type="checkbox"/>	02	Syphilis
<input type="checkbox"/>	03	Genital Herpes
<input type="checkbox"/>	04	Chlamydia
<input type="checkbox"/>	05	Hepatitis B
<input type="checkbox"/>	06	Hepatitis C
<input type="checkbox"/>	07	Group B Strep
<input type="checkbox"/>	00	None of the above

Was Maternal HIV Test Performed?

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
<input type="checkbox"/>	Unknown		

ABNORMAL CONDITIONS

<input type="checkbox"/>	01	Assisted ventilation
<input type="checkbox"/>	02	Assisted ventilation
<input type="checkbox"/>	03	NICU admission
<input type="checkbox"/>	04	Newborn given
<input type="checkbox"/>	05	Antibiotics received
<input type="checkbox"/>	06	Seizure or seizure
<input type="checkbox"/>	07	Significant birth
		tissue/s
<input type="checkbox"/>	00	None of the
<input type="checkbox"/>	99	Unknown

CONGENITAL ANOMALIES OF THE NEWBORN
(Circle all that apply)

8.5 x 14 in

2 of 2

Start | N... | M... | C... | M... | A... | 3:16 PM

Useful Tools - 3

➤ Reporting Law

- Requires physicians, hospitals and laboratories to report HBsAg-positive test results to the LHD within 24 hours of discovery or diagnosis

➤ Laboratory Contracts

- Free blood draw at participating laboratories

➤ Program Manual

- Launched in 2007
www.michigan.gov/hepatitisb
- Multiple provider sections

Challenges

- Case Identification/Reporting
- Case Management
- Medical Management of HBsAg+ Women

Case Identification/Reporting

- Center's for Disease Control (CDC) point estimates

	Identified vs expected	Lower limit
National	49%	69%
MI	52%	79%

- Repeat Cases
- Physician Reporting
- Laboratory surveillance

Case Management Challenges

- Infant Post-Vaccination Serology
- Contacts
 - Repeat cases
 - Identification
 - Hours of service

Medical Management of HBsAg + Pregnant Women

- Counsel
- Advise to seek medical follow-up, but no resources to provide services

How to Bridge the Gap

- Laboratories
- Physician Reporting
- Working Together
 - Sharing resources with other program
 - Working with LHDs



Thank you!

Questions/Discussion

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www.michigan.gov/hepatitisb

