

IMMUNIZATION TRENDS

2001—2007

Idaho Department of Health and Welfare
Bureau of Vital Records and Health Statistics

July 2009



Analysis from the
Pregnancy Risk Assessment Tracking System

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For more details on this project or any of the survey results, please contact the PRATS Program Director, Idaho Bureau of Vital Records and Health Statistics, at (208) 332-7366.

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IMMUNIZATION TRENDS

Introduction

Vaccine-preventable diseases are associated with burdensome health and financial consequences. Incidence of these diseases are likely to result in increased doctors visits, hospitalizations, premature death, or further spread of the disease. Vaccine-preventable diseases can be far more common or serious among infants and young children, whose bodies may not be strong enough to fight the disease.^{1,2}

Methodology

The Immunization Trends Report was compiled from Idaho's Pregnancy Risk Assessment Tracking System (PRATS). PRATS is a population-based tracking system that identifies and examines maternal experiences and health practices surrounding pregnancy which may affect pregnancy outcomes and infant health. PRATS was first conducted in Idaho in 1999, and has been conducted annually since 2001. PRATS is modeled after the Centers for Disease Control and Prevention's (CDC) Pregnancy Risk Assessment Monitoring System (PRAMS).³ PRATS data are supplemental to information obtained from vital records and are used for planning, developing, and assessing perinatal health programs in Idaho. Results from PRATS have been used to determine progress towards goals, assess trends, and target at-risk populations relevant to maternal and child health. The study population for PRATS included female residents of Idaho aged 18 or older (at the time of delivery) who had a live birth which occurred in-state (based on birth certificate data).

Data Limitations

The self-reported nature of PRATS data allows for potential information bias and error in estimation. Women may not have been able to accurately recall events surrounding their pregnancies because the timing of the survey was several months following delivery. In addition, responses may have been influenced by social desirability bias, which is the tendency of respondents to reply in a manner that will be viewed favorably by others. The result of this bias would likely be an overestimation of behaviors viewed as positive or socially desirable and an underestimation of behaviors perceived to be risky or socially undesirable. Also, confidentiality concerns may have impacted how likely women were to honestly respond to survey questions. Because women were given the option of responding to the survey by mail or by phone, differences in interpretation may have existed between those who were read the question by a trained interviewer versus reading the question themselves.

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Immunization-Related Survey Questions

IMMUNIZATIONS[†]

“Are your baby’s immunizations (shots) up to date according to the immunization schedule?”

- No
- Yes
- I don’t know

IMMUNIZATION BARRIERS[†]

(Only asked of those who reported their baby’s immunizations are not up to date) “If no or don’t know, why?” *Check all that apply.*

- My baby was sick or had medical problems
- I wanted to wait until my baby was older
- I didn’t have enough money or insurance
- I had no way to get the baby to the clinic or office
- The clinic was not open when it was convenient for me
- I don’t know what is recommended by the schedule
- I had too many other things going on
- I don’t think immunizations are safe
- Other

HEPATITIS B VACCINATIONS[‡]

“Did your baby receive the Hepatitis B vaccine before leaving the hospital or birthing center?”

- No
- Yes
- I don’t know
- I did not have my baby in a hospital or birthing center

HEPATITIS B VACCINATION BARRIERS[‡]

(Only asked of those who reported their baby did not receive the Hepatitis B vaccine before leaving the hospital or birthing center) “Why didn’t your baby receive the Hepatitis B vaccine before leaving the hospital or birthing center?” *Check all that apply.*

- I was not offered the Hepatitis B vaccine for my baby at that time
- I felt my baby was too young for this vaccination
- I felt my baby was not at risk for Hepatitis B
- I was worried that the vaccine would harm my baby
- Other

SOURCES OF INFORMATION ABOUT IMMUNIZATIONS[‡]

“Were you given information about the importance of immunizing your baby by any of the following?” *Check all that apply.*

- Prenatal care provider
- Childbirth preparation or parenting classes
- Hospital, doctor’s office, or other health care facility
- Other

IRIS ENROLLMENT[†]

“Is your baby enrolled in the Immunization Reminder Information System (IRIS)?”

- No
- Yes
- I don’t know

[†] Available 2001 to current

[‡] Available 2004 to current

Trend Tables

TABLE 1
IMMUNIZATIONS
Percent of Idaho Mothers Aged 18 and Older Who Reported Their Baby's
Immunizations Were Up To Date by District by Year
PREGNANCY RISK ASSESSMENT TRACKING SYSTEM (PRATS), 2001-2007

	2001	2002	2003	2004	2005	2006	2007
STATEWIDE	81.2%	89.8%	88.3%	89.2%	90.6%	88.6%	87.6%
District 1	86.0	83.9	83.5	85.8	83.8	88.8	78.1
District 2	80.0	100.0	89.3	89.9	91.2	83.8	85.8
District 3	79.3	91.9	87.1	89.0	92.1	89.4	90.8
District 4	83.7	90.2	91.6	91.3	93.5	90.4	88.9
District 5	72.4	88.6	85.6	86.8	87.2	88.3	85.3
District 6	84.1	90.2	90.2	91.8	93.4	91.0	91.3
District 7	82.8	87.3	86.8	87.3	87.7	84.6	86.8

TABLE 2
IMMUNIZATION BARRIERS
Immunization Barriers Reported Among Idaho Mothers Aged 18 and Older Who Reported Their Baby's
Immunizations Were Not Up To Date by Year by District
PREGNANCY RISK ASSESSMENT TRACKING SYSTEM (PRATS), 2005-2007

	Statewide	Public Health District											
		District 1	District 2	District 3	District 4	District 5	District 6	District 7					
2005													
My baby was sick or had medical problems	27.5%	10.9%	14.0%	36.8%	*	51.7%	*	23.0%					
I wanted to wait until my baby was older	25.0	28.6	20.7	21.2	*	21.1	*	23.0					
I didn't have enough money or insurance	11.7	5.5	5.1	3.7	*	6.8	*	17.0					
I had no way to get the baby to the clinic or office	3.3	7.7	0.0	12.5	*	1.7	*	0.0					
The clinic was not open when it was convenient for me	6.3	0.0	7.8	11.3	*	5.7	*	11.7					
I don't know what is recommended by the schedule	1.4	0.0	0.0	4.2	*	4.5	*	0.0					
I had too many other things going on	12.0	5.5	15.6	5.3	*	11.4	*	14.2					
I don't think immunizations are safe	28.9	48.8	27.0	23.9	*	13.9	*	16.0					
Other†	25.7	26.6	40.9	24.3	*	23.1	*	29.9					
2006													
My baby was sick or had medical problems	21.6	9.2	27.5	17.1	13.0	25.0	37.8	28.3					
I wanted to wait until my baby was older	29.5	28.8	20.2	22.9	26.1	30.3	21.8	43.3					
I didn't have enough money or insurance	10.9	5.6	7.8	20.0	11.6	9.4	8.2	8.6					
I had no way to get the baby to the clinic or office	2.0	5.6	4.8	7.1	0.0	0.0	0.0	0.0					
The clinic was not open when it was convenient for me	6.2	5.6	1.7	5.7	0.0	8.1	2.7	14.7					
I don't know what is recommended by the schedule	1.7	0.0	3.1	0.0	0.0	9.4	2.7	0.0					
I had too many other things going on	8.7	0.0	8.4	17.2	13.0	0.0	8.2	7.4					
I don't think immunizations are safe	29.9	53.6	18.5	22.9	33.3	35.3	19.1	26.2					
Other†	25.7	10.2	35.0	37.1	30.4	25.8	40.3	10.8					
2007													
My baby was sick or had medical problems	17.1	11.1	15.3	14.2	11.6	24.7	26.6	22.4					
I wanted to wait until my baby was older	43.3	58.7	39.0	22.3	55.8	32.6	40.2	39.5					
I didn't have enough money or insurance	11.1	11.3	8.6	17.4	14.0	7.0	5.7	8.5					
I had no way to get the baby to the clinic or office	4.7	2.7	2.9	3.2	7.0	5.0	5.5	4.6					
The clinic was not open when it was convenient for me	3.8	0.0	3.8	0.0	2.3	8.0	14.4	4.0					
I don't know what is recommended by the schedule	4.5	0.0	0.0	0.0	9.3	7.0	5.7	4.0					
I had too many other things going on	9.2	5.5	15.2	12.7	7.0	8.0	23.0	5.9					
I don't think immunizations are safe	30.1	44.0	29.5	*	26.2	25.8	25.6	27.0					
Other†	26.8	18.1	30.4	33.3	39.5	18.8	17.2	22.4					

* Figure not reliable by PRATS standards (n < 30).
† Common "other" responses included using an alternative schedule, postponing the regular schedule, selectively immunizing, and shortage of specific immunizations.
Bold indicates the most common barrier among each year and district.
Note: The question format is "check all that apply." Totals among each year and district will not sum to 100%.

TABLE 3
HEPATITIS B VACCINATIONS
Percent of Idaho Mothers Aged 18 and Older Who Reported Their Baby Received
Hepatitis B Vaccine at Hospital or Birthing Center¹ by District by Year
PREGNANCY RISK ASSESSMENT TRACKING SYSTEM (PRATS), 2004-2007

	2004	2005	2006	2007
STATEWIDE	85.4%	87.0%	87.5%	86.9%
District 1	74.6	78.1	76.4	74.5
District 2	89.7	89.2	89.2	90.6
District 3	87.9	88.0	87.3	86.5
District 4	82.4	82.1	84.6	83.5
District 5	93.2	93.5	95.2	93.3
District 6	79.1	83.0	86.0	89.5
District 7	90.3	94.4	92.7	91.5

1. Of births that occurred in a hospital/birthing center

TABLE 4
HEPATITIS B VACCINATION BARRIERS
Vaccination Barriers Reported Among Idaho Mothers Aged 18 and Older Who Reported Their Baby Did Not
Receive Hepatitis B Vaccination at Hospital or Birthing Center¹ by Year by District
PREGNANCY RISK ASSESSMENT TRACKING SYSTEM (PRATS), 2005-2007

	Statewide	Public Health District										
		District 1	District 2	District 3	District 4	District 5	District 6	District 7				
2005	I was not offered the vaccine for my baby at that time I felt my baby was too young for this vaccination I felt my baby was not at risk for Hepatitis B I was worried the vaccine would harm my baby Other [†]	27.8% 25.7 18.1 13.6 37.3	19.8% 34.6 33.3 21.6 21.2	13.6% 40.3 38.3 24.6 30.6	27.2% 20.5 18.3 10.6 51.7	29.7% 21.3 11.4 9.9 43.4	*	*	43.3% 10.1 8.4 10.8 37.5	*	*	*
2006	I was not offered the vaccine for my baby at that time I felt my baby was too young for this vaccination I felt my baby was not at risk for Hepatitis B I was worried the vaccine would harm my baby Other [†]	21.1 29.6 23.9 18.7 41.2	22.4 34.3 29.2 13.5 33.4	14.4 40.2 37.3 23.0 31.1	18.2 26.0 20.8 18.2 59.7	20.0 24.8 18.1 18.1 45.7	*	*	53.2 22.3 20.1 8.9 24.5	*	*	*
2007	I was not offered the vaccine for my baby at that time I felt my baby was too young for this vaccination I felt my baby was not at risk for Hepatitis B I was worried the vaccine would harm my baby Other [†]	20.2 40.0 23.7 18.0 38.0	27.1 51.4 31.1 29.6 17.7	* * * * *	30.1 14.5 9.7 4.8 57.8	17.5 36.9 22.8 14.1 45.6	*	*	29.7 35.2 13.6 16.1 40.4	*	*	6.5 67.7 35.5 25.8 22.6

1. Of births that occurred in a hospital/birthing center

* Figure not reliable by PRATS standards (n < 30).

† The majority of "other" responses stated that the baby received the Hepatitis B vaccine at a doctor's office or clinic within a few weeks or months following birth.

Bold indicates the most common barrier among each year and district.

Note: The question format is "check all that apply." Totals among each year and district will not sum to 100%.

TABLE 5
SOURCES OF INFORMATION ABOUT IMMUNIZATIONS
Source of Immunization Information Reported Among Idaho Mothers
Aged 18 and Older by District by Year
PREGNANCY RISK ASSESSMENT TRACKING SYSTEM (PRATS), 2004-2007

	2004	2005	2006	2007
STATEWIDE				
Prenatal Care Provider	46.6%	47.2%	45.0%	45.3%
Childbirth Preparation/Parenting Classes	23.0	22.2	20.0	18.6
Hospital, Doctor's Office, Other Health Care Facility	88.8	87.8	87.0	89.8
Other	9.2	8.2	8.2	7.5
DISTRICT 1				
Prenatal Care Provider	49.6	55.0	54.0	51.7
Childbirth Preparation/Parenting Classes	22.7	27.5	22.9	19.1
Hospital, Doctor's Office, Other Health Care Facility	89.0	89.5	86.4	90.5
Other	6.9	7.4	7.2	5.1
DISTRICT 2				
Prenatal Care Provider	51.5	58.2	52.6	55.5
Childbirth Preparation/Parenting Classes	25.0	26.8	24.3	24.9
Hospital, Doctor's Office, Other Health Care Facility	91.0	88.3	90.6	93.8
Other	10.3	9.7	6.8	7.6
DISTRICT 3				
Prenatal Care Provider	44.3	43.0	40.7	46.4
Childbirth Preparation/Parenting Classes	17.4	17.3	14.0	17.4
Hospital, Doctor's Office, Other Health Care Facility	86.2	87.8	85.6	90.0
Other	11.0	8.6	6.8	7.3
DISTRICT 4				
Prenatal Care Provider	51.0	44.7	46.0	40.7
Childbirth Preparation/Parenting Classes	27.6	26.4	26.6	17.0
Hospital, Doctor's Office, Other Health Care Facility	91.2	89.7	88.1	90.8
Other	8.7	6.2	7.4	7.2
DISTRICT 5				
Prenatal Care Provider	44.6	48.4	42.1	40.7
Childbirth Preparation/Parenting Classes	21.6	21.0	23.3	22.8
Hospital, Doctor's Office, Other Health Care Facility	87.3	82.1	82.4	86.4
Other	7.9	8.9	10.7	8.1
DISTRICT 6				
Prenatal Care Provider	44.4	47.9	44.7	48.1
Childbirth Preparation/Parenting Classes	20.9	17.8	13.8	15.8
Hospital, Doctor's Office, Other Health Care Facility	87.3	87.9	88.4	89.6
Other	12.0	9.0	8.2	8.4
DISTRICT 7				
Prenatal Care Provider	41.8	47.1	43.2	46.7
Childbirth Preparation/Parenting Classes	22.8	21.3	14.4	19.4
Hospital, Doctor's Office, Other Health Care Facility	88.9	87.9	88.7	89.0
Other	7.8	9.6	10.1	8.5

Note: The question format is "check all that apply." Totals among each year and district will not sum to 100%.

TABLE 6
IRIS ENROLLMENT
Percent of Idaho Mothers Aged 18 and Older Who Reported Their Baby Was Enrolled in IRIS
(Immunization Reminder Information System) by District by Year
PREGNANCY RISK ASSESSMENT TRACKING SYSTEM (PRATS), 2001-2007

	2001	2002	2003	2004	2005	2006	2007
STATEWIDE	68.7%	76.6%	67.4%	70.5%	64.1%	65.0%	65.3%
District 1	78.0	74.6	71.7	73.5	68.1	65.8	59.4
District 2	65.1	71.9	69.8	70.4	61.3	63.1	58.6
District 3	57.2	68.9	61.6	63.3	60.7	62.2	58.7
District 4	62.6	72.1	53.8	67.3	54.9	58.5	64.3
District 5	73.8	85.9	83.6	83.0	78.0	72.9	71.4
District 6	76.9	83.1	72.9	68.7	68.2	69.4	67.4
District 7	75.8	81.5	75.9	72.7	67.0	69.9	72.8

Profile of Mothers

TABLE 7
IMMUNIZATIONS NOT UP TO DATE
Profile of Idaho Mothers Aged 18 and Older Who Reported
Their Baby's Immunizations Were Not Up To Date*
PREGNANCY RISK ASSESSMENT TRACKING SYSTEM (PRATS), 2007

IDAHO TOTAL	12.5%	PLACE OF PRENATAL CARE⁹	
		Hospital clinic	10.1
		Private doctor's office	10.9
		Community health center	3.2
		Indian health center	-
		Other	32.1
AGE^{1,2}		WIC DURING PREGNANCY¹⁰	
18-19	6.0	No	14.3
20-34	12.3	Yes	9.1
35+	16.9	BIRTH PLACE²	
EDUCATION²		Hospital	11.7
High school or less	9.6	Non-hospital	87.3
Some college	15.9	BIRTH ATTENDANT²	
College graduate+	10.8	Doctor/Nurse	11.1
ETHNICITY³		Other	72.6
Non-Hispanic	13.4	GIVEN INFORMATION ON THE	
Hispanic	5.2	IMPORTANCE OF IMMUNIZING¹¹	
PARITY (Number of live births)^{2,4}		No	33.6
1-2	10.0	Yes	12.0
3-5	16.3	RECEIVED HEARING SCREENING	
6+	33.3	No	58.1
INSURANCE STATUS		Yes	11.3
Medicaid ⁵	10.5	ANY WELL BABY CARE VISITS¹²	
Insured ⁶	12.9	No	43.5
Uninsured ⁷	23.7	Yes	12.4
REGULAR MULTIVITAMIN⁸		ENROLLED IN IRIS¹³	
No	16.7	No	36.1
Yes	11.4	Yes	7.4
1st TRIMESTER PRENATAL CARE			
No	20.5		
Yes	11.1		

* Includes "I don't know" responses

- Figure not reliable by PRATS standards (n < 30)

1. At the time of delivery
2. As reported on the Idaho Certificate of Live Birth (birth certificate)
3. Based on the "mother of Hispanic origin" question on the birth certificate
4. Includes this birth
5. Indicates Medicaid coverage just before pregnancy or at any point during pregnancy
6. Indicates insurance coverage just before pregnancy or at any point during pregnancy, excluding those with Medicaid coverage.
7. Indicates no insurance or Medicaid coverage just before pregnancy or at any point during pregnancy
8. Vitamin use four or more times per week in the last three months of pregnancy
9. Of those who received prenatal care
10. Supplemental Nutrition Program for Women, Infants, and Children (WIC)
11. By a prenatal care provider; childbirth or parenting class; hospital, doctors office, or other health care facility; or other source
12. Does not include visits when baby was sick or visits only for immunizations
13. Immunization Reminder Information System (IRIS)

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Risk Factors* Associated With Immunizations Not Being Up To Date

1. Non-hospital birth
2. "Other" birth attendant
3. Did not receive hearing screening
4. No well baby care visits
5. Not enrolled in IRIS
6. Not given information on the importance of immunizing
7. High parity (6 or more births)
8. "Other" place of prenatal care
9. Uninsured
10. No prenatal care during the first trimester of pregnancy

*To be considered a "risk factor" the following two conditions must have been met. The prevalence of immunizations not being up to date among that level of the variable must be 1) significantly greater than the Idaho Total prevalence and 2) significantly greater than all other levels of that variable.

Example: The prevalence of immunizations not being up to date among non-hospital births (87.3%; 95% CI 89.8-95.3) is significantly greater than the Idaho Total prevalence (12.5%; 95% CI 11.1-13.9). It is also significantly greater than the prevalence of immunizations not being up to date among hospital births (11.7%; 95% CI 10.4-13.2).

TABLE 8
DID NOT RECEIVE HEPATITIS B VACCINATION
Profile of Idaho Mothers Aged 18 and Older Who Reported Their Baby Did Not Receive the
Hepatitis B Vaccine at the Hospital or Birthing Center*
PREGNANCY RISK ASSESSMENT TRACKING SYSTEM (PRATS), 2007

IDAHO TOTAL	13.1%	SMOKING BEFORE PREGNANCY ^{9,10}	
		No	14.3
		Yes	8.2
EDUCATION ¹		SMOKING DURING PREGNANCY ^{9,11}	
High school or less	7.9	No	13.8
Some college	13.5	Yes	4.9
College graduate+	20.0	RECEIVED HEARING SCREENING	
ETHNICITY ²		No	48.7
Non-Hispanic	14.0	Yes	12.7
Hispanic	5.7	EVER BREASTFED ¹²	
INCOME ³		No	6.1
Less than \$25,000	9.9	Yes	13.9
\$25,000 or more	15.5	BREASTFED FOR 6 MO.+ ^{12,13}	
MARITAL STATUS ⁴		No	9.5
Not Married	7.2	Yes	16.9
Married ⁴	14.9	LAID BABY ON BACK TO SLEEP	
INSURANCE STATUS		No	17.8
Medicaid ⁵	8.7	Yes	11.7
Insured ⁶	16.0	ENROLLED IN CHIP ¹⁴	
Uninsured ⁷	14.3	No	14.1
WIC DURING PREGNANCY ⁸		Yes	7.8
No	16.7	ENROLLED IN IRIS ¹⁵	
Yes	6.7	No	31.5
		Yes	8.9

*Of births that occurred in a hospital/birthing center

1. As reported on the Idaho Certificate of Live Birth (birth certificate)
2. Based on the "mother of Hispanic origin" question on the birth certificate
3. Annual household income (before taxes) from all sources one year prior to delivery
4. Married at the time of conception, at the time of delivery, or at any time between conception and delivery
5. Indicates Medicaid coverage just before pregnancy or at any point during pregnancy
6. Indicates insurance coverage just before pregnancy or at any point during pregnancy, excluding those with Medicaid coverage
7. Indicates no insurance or Medicaid coverage just before pregnancy or at any point during pregnancy
8. Supplemental Nutrition Program for Women, Infants, and Children (WIC)
9. Of those who had ever smoked at least 100 cigarettes (equal to 5 packs)
10. In the three months prior to pregnancy
11. In the last three months of pregnancy
12. Includes those who pumped breast milk to feed their baby
13. Excludes babies who were not at least six months old at the time of the survey
14. Children's Health Insurance Program (CHIP)
15. Immunization Reminder Information System (IRIS)

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Risk Factors* Associated With Not Receiving Hepatitis B Vaccination

1. Did not receive hearing screening
2. Not enrolled in IRIS
3. College graduate

*To be considered a "risk factor" the following two conditions must have been met. The prevalence of no Hepatitis B vaccination among that level of the variable must be 1) significantly greater than the Idaho Total prevalence and 2) significantly greater than all other levels of that variable.

Example: The prevalence of no Hepatitis B vaccination at the hospital among those whose baby did not receive a hearing screening (48.7%; 95% CI 31.2-66.5) is significantly greater than the Idaho Total prevalence (13.1%; 95% CI 11.7-14.7). It is also significantly greater than the prevalence of no Hepatitis B vaccination among those whose baby did receive a hearing screening (12.7%; 95% CI 11.2-14.3).

References

1. Centers for Disease Control and Prevention (CDC), “The Importance of Childhood Immunizations,” <http://www.cdc.gov/vaccines/vac-gen/importance.htm> (accessed April 1, 2009).
2. Centers for Disease Control and Prevention (CDC), “Infant Immunizations,” <http://www.cdc.gov/vaccines/spec-grps/infants/infant-imz.htm> (accessed April 1, 2009).
3. *Pregnancy Risk Assessment Monitoring System (PRAMS)*, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Reproductive Health, www.cdc.gov/PRAMS (accessed April 1, 2009).



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