



The Future of WIC Surveillance Systems: PNSS and PedNSS Resurrected

MI-PNSS & PedNSS

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Agenda



- ▶ Project Overview
- ▶ MI-PNSS & PedNSS Features
- ▶ The System
- ▶ Proposal
- ▶ Discussion

What is MI-PNSS & PedNSS

- ▶ The Michigan Pregnancy & Pediatric Nutrition Surveillance Systems are a replica of the Centers for Disease Control (CDC) PNSS & PedNSS Data collection systems used previously to produce these Surveillance Reports.

Purpose

- ▶ The purpose of this project is to develop a system and produce a series of reports that are congruent with the CDC Pregnancy Nutrition Surveillance System (PNSS) and Pediatric Nutrition Surveillance System (PedNSS) reports. This includes a review of existing validation and cleaning, analysis, data storage, file creation, and report generation procedures.

Project Overview



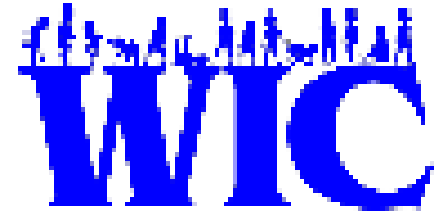
Demonstrated Need

- ▶ In 2012 CDC stopped producing the PNSS and PedNSS reports and a vital WIC program planning and evaluation data source was lost. Michigan WIC decided to develop a system similar to the CDC. The MI-PNSS & PedNSS has the ability similar to the CDC system to generate PNSS and PedNSS reports.

Data Sources

- ▶ MI-PNSS & PedNSS uses existing data extracts from the WIC program that serves pregnant, breastfeeding, and postpartum women, infants and children <5 years for nutrition surveillance.

Project Overview



Data Collection

- ▶ The specifications of fields for data collection will be the same as CDC field definitions and specifications.
- ▶ PNSS data will include fields related to demographics, breastfeeding, maternal health, behavioral indicators and birth outcome. PedNSS data collection fields include birth outcome, growth, breastfeeding and health risk behavior indicators for children.

Project Overview

Surveillance Reports

- ▶ The MI-PNSS & PedNSS has the ability to generate nutrition surveillance reports nationally, defined as “all participating contributors” as well as for each contributor. A contributor may be a State, U.S. territory, or a tribal government. Each contributor can receive more specific reports by State, local agency, clinic and county.
- ▶ The goal of MI-PNSS & PedNSS is to collect, analyze, and disseminate data to guide public health policy and action related to WIC population. MI-PNSS & PedNSS information is used for priority setting, planning, implementing, monitoring, and evaluation of public health programs.

Project Team



- ▶ Michigan WIC: Project Planning, Design & Implementation
 - ▶ Kobra Eghtedary, PhD
 - ▶ Bagya Kodur
 - ▶ Stan Bien, WIC Director

- ▶ Bicoastal Hills Consulting - Project Consultant
 - ▶ Craig Hill

- ▶ Three Sigma Software - Design & Development Vendor
 - ▶ Kamallesh Bandanadham
 - ▶ Ramesh Balyam

System Features



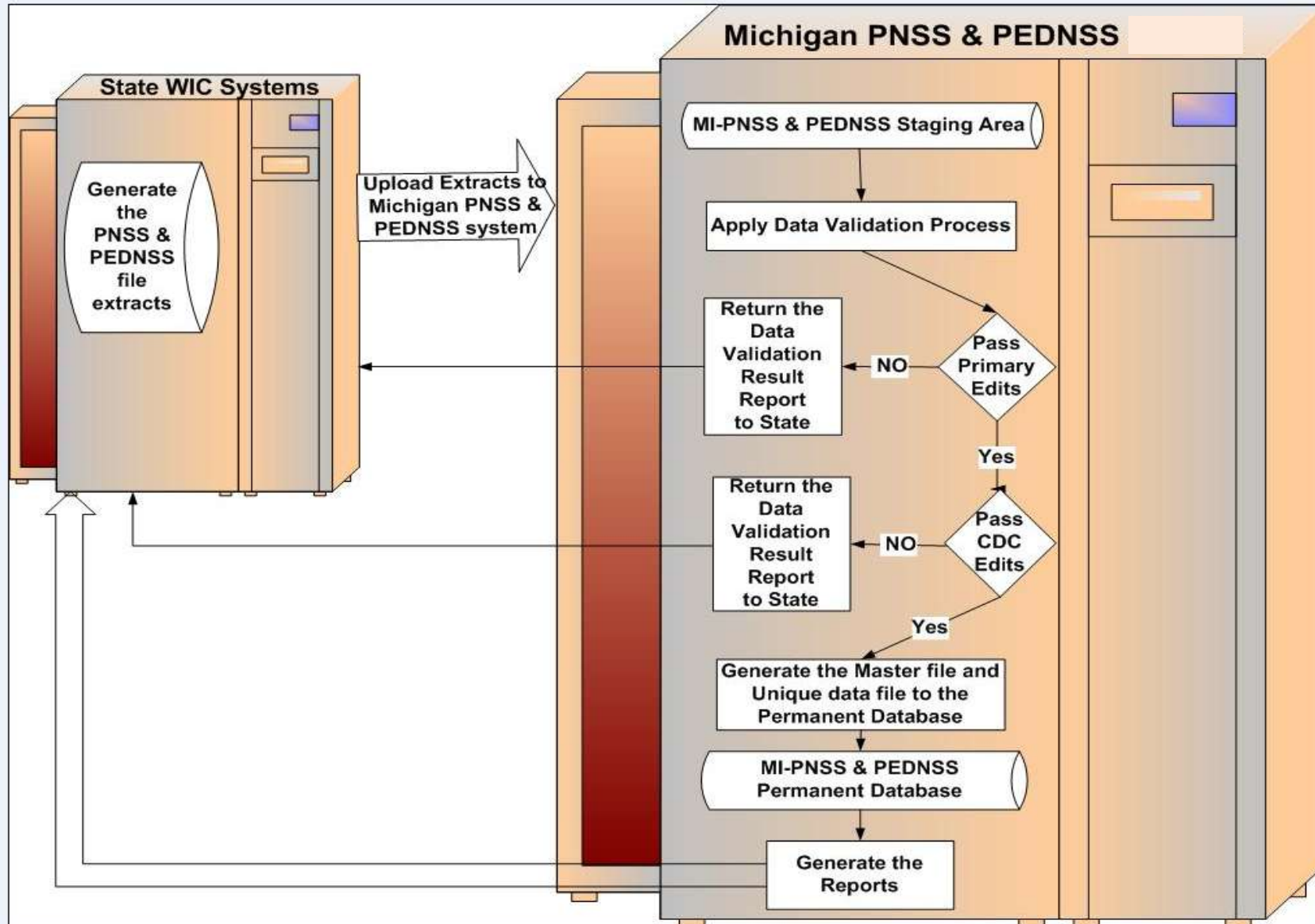
- **Web-based Application** - Access through Michigan Secure Single Sign On (SSO)

- **Easy Navigation Features**

- **Electronic Environment**

- **Process Automation**
 - ❖ Secure Role-Based Log in
 - ❖ Program Rules Application
 - ❖ Data Edits & Validation
 - ❖ Data Integrity
 - ❖ Historic Information
 - ❖ Report Generation

System Features



Drum Roll, Please.....



The screenshot shows a web browser window with the address bar displaying "http://localhost/MIWIC_SP1/MIWIC.aspx". The browser's menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The website header features the "MI-WIC" logo and the text "Michigan's Management Information for WIC". To the right of the header is the "Michigan Department of Community Health" logo and a row of five small photographs of children. The main content area is divided into three sections: a left sidebar with a menu, a central banner, and a right sidebar. The sidebar menu lists "CLINIC", "ADMIN", "NUTRITION", "VENDOR", and "MI PNSS & PEDNSS", with a yellow arrow pointing to the last item. Below the menu is a note about PDF files and the Adobe Reader logo. The central banner features a blue background with a map of Michigan and the text "MI-WIC", overlaid with images of a woman holding a baby, a pregnant woman, and a woman at a computer. The right sidebar is titled "WIC NOTES & ALERTS" and contains a box for "Michigan WIC Test System" and a background image of the Mackinac Bridge.

Access to this system is restricted to authorized users only and limited to approved business purposes. By using this system, you expressly consent to the monitoring of all activities. Any unauthorized access or use of this system is prohibited and could be subject to criminal and civil penalties. All records, reports, e-mail, software, and other data generated by or residing upon this system are the property of the State of Michigan and may be used by the State of Michigan for any purpose.

MI-PNSS & PedNSS



http://localhost/MIWIC_SP1/MIWIC.aspx

File Edit View Favorites Tools Help



Michigan's Management Information for WIC

Michigan Department of Community Health



CLINIC

ADMIN

NUTRITION

VENDOR

MI - PNSS
PEDNSS

Many documents on this site are PDF files which require the use of the free Adobe Acrobat Reader.



Women, Infants and Children *For Our Kids' Sake*

MI - PNSS & PEDNSS

000000 State Agency

OK

WIC NOTES & ALERTS

Michigan WIC Test System



Access to this system is restricted to authorized users only and limited to approved business purposes. By using this system, you expressly consent to the monitoring of all activities. Any unauthorized access or use of this system is prohibited and could be subject to criminal and civil penalties. All records, reports, e-mail, software, and other data generated by or residing upon this system are the property of the State of Michigan and may be used by the State of Michigan for any purpose.

MI-PNSS & PedNSS



MI PNSS & PEDNSS - Windows Internet Explorer

MI-WIC
Management Information
Michigan WIC

File File Upload Data Quality Reports Help Thu 9/12/2013

File Upload Data Quality Logoff

Michigan PNSS & PEDNSS

Version: 5.0.0.1 BALYAMR1234 MI miwics1

MI – PNSS & PedNSS



File Upload Rules - Windows Internet Explorer

MI-WIC Management Information Michigan WIC

File Upload | Data Quality | Reports | Help | Thu 9/12/2013

File Upload

Data Quality

Logoff

File Upload:

State*: MI

Year*: 2012 Quarter*: Q1

Select Activity*: PNSS PEDNSS

File Type*: Data File Code File

Select File to Upload*: E:\PedNSS\PEDNSS_112012_3312012.TXT

Uploaded Files:

	Date Uploaded	State	Year	Quarter	Activity	File Uploaded	File Renamed	File Status
	08/28/2013	MI	2012	Q4	PEDNSS	PEDNSS_1012012_1...	MI_PEDNSS_2012_Q4....	Unique Master G...
	08/28/2013	MI	2012	Q3	PEDNSS	PEDNSS_712012_93...	MI_PEDNSS_2012_Q3....	Unique Master G...
	08/28/2013	MI	2012	Q2	PEDNSS	PEDNSS_412012_63...	MI_PEDNSS_2012_Q2....	Unique Master G...
▶	08/28/2013	MI	2012	Q1	PEDNSS	PEDNSS_112012_33...	MI_PEDNSS_2012_Q1....	Unique Master G...
	08/28/2013	MI	2012	Q4	PNSS	PNSS_10012012_123...	MI_PNSS_2012_Q4.dat	Scheduled to Mas...
	08/28/2013	MI	2012	Q3	PNSS	PNSS_07012012_093...	MI_PNSS_2012_Q3.dat	Scheduled to Mas...
	08/28/2013	MI	2012	Q2	PNSS	PNSS_412012_63020...	MI_PNSS_2012_Q2.dat	Scheduled to Mas...
	08/28/2013	MI	2012	Q1	PNSS	PNSS_01012012_033...	MI_PNSS_2012_Q1.dat	Scheduled to Mas...
	08/28/2013	MI	2010	Q1	PNSS	PNSS_01012010_033...	MI_PNSS_2010_Q1.dat	Scheduled to Mas...

Version: 5.0.0.1

BALYAMR1234 MI miwics1

Data Quality Summary



Data Quality Summary - Windows Internet Explorer

MI-WIC
Management Information
Michigan WIC

File File Upload Data Quality Reports Help Thu 9/12/2013

File Upload Data Quality Logoff

Data Quality Summary:

State*: MI Activity*: PEDNSS Year*: 2012 Quarter*: Q1 **Go**

File Information:

File Date: 8/28/2013
Uploaded File Name: PEDNSS_112012_3312012.TXT
Renamed File Name: MI_PEDNSS_2012_Q1.dat
File Status: Unique Master Generated
Total Records: 106483

Error Code Summary:

Error Description	Field Count	Details
No Errors Identified	0	
Missing Data	7	
Completion Code and Record Linkage Errors	0	
▶ Mis-coded Data	2	
BIV (Biologically implausible values)	1	
Cross-check Errors	0	
Unusual Data Distributions	0	
Low or High Standard Deviations	0	

Export **Submit to Master** **Cancel**

Version: 5.0.0.1 BALYAMR1234 MI miwics1

Data Quality Summary – Details



-- Webpage Dialog

Data Quality Details:

State: **MI** Activity: **PEDNSS** Year: **2012** Quarter: **Q1**

Error Code: Mis-coded Data

Field Name	Number of Records	Threshold %	% Found
MONTHLY_HOUSEHOLD_INCOME	14789	5	13.90
WEIGHT_ENGLISH	355	5	0.30

Detail Record:

Display Export Cancel

Data Quality Summary –Details



-- Webpage Dialog

Data Quality Details:

State: **MI** Activity: **PEDNSS** Year: **2012** Quarter: **Q1**

Error Code: Mis-coded Data

Field Name	Number of Records	Threshold %	% Found
MONTHLY_HOUSEHOLD_INCOME	14789	5	13.90
▶ WEIGHT_ENGLISH	355	5	0.30

Detail Record:

OOD_S...	MEDICIAD	TANF	BIRTHW...	BIRTHW...	HEIGHT_...	HEIGHT_...	WEIGHT...	WEIGHT...	DATE_H.
	2	2			999		9999		01092012
	1	2			999		9999		02082012
	1	2			999		9999		01192012
	1	2			999		9999		02082012
	1	2			999		9999		03142012
	1	2			999		9999		01112012
	1	2			390		9999		03092012
	1	2			999		9999		01262012

WEIGHT_ENGLISH

Display Export Cancel

Reports



MI PNSS & PEDNSS - Windows Internet Explorer

MI-WIC
Management Information
Michigan WIC

File Upload
Data Quality
Logoff

File File Upload Data Quality **Reports** Help Fri 4/19/2013

- PEDNSS
- PNSS
- Clinic
- County
- Local Agency
- State

Michigan PNSS & PEDNSS

Version: 5.0.0.1 BALYAMR MI miwics

Report Generation



Report Parameters -- Webpage Dialog

State

Year

Run Report Cancel

The image shows a web-based dialog box titled "Report Parameters -- Webpage Dialog". The dialog has a light orange background and a grey border. At the top right, there is a close button with an "X" icon. Below the title bar, the word "State" is centered. On the left side, the label "Year" is positioned next to a blue dropdown menu that currently displays "2012". At the bottom right of the dialog, there are two buttons: a purple "Run Report" button and an orange "Cancel" button. A small question mark icon is located in the top right corner of the main content area.

Reports – PNSS 2012



Table 1C
2012 Pregnancy Nutrition Surveillance (1)
Michigan
Summary of Demographic Indicators (2)

Page: 1
Run Date: 09/08/2013

Total Records	Number	%
Complete Records	50,922	74.9
Prenatal Records	5,102	7.5
Postpartum Records	11,955	17.6
Total Records Accepted	67,979	

Source of Data	Number	%
WIC	67,979	100.0
Maternal Health	0	0.0
Other	0	0.0
Total	67,979	100.0
<i>Excluded Unknowns: 0 0.0</i>		

Race/Ethnic Distribution	Number	%
White, Not Hispanic	38,226	56.6
Black, Not Hispanic	18,695	27.7
Hispanic	6,789	10.0
American Individual/Alaska Native	262	0.4
Asian/Pacific Islander	1,307	1.9
Multiple Races	2,281	3.4
All Other	0	0.0
Total	67,560	100.0
<i>Excluded Unknowns: 419 0.6</i>		

Age Distribution	Number	%
< 15 Years	144	0.2
15 - 17 Years	3,064	4.6
18 - 19 Years	7,201	10.8
20 - 29 Years	41,697	62.5
30 - 39 Years	13,638	20.4
>= 40 Years	997	1.5
Total	66,741	100.0
<i>Excluded Unknowns: 1238 1.8</i>		

Education Distribution	Number	%
< High School	16,838	25.2
High School	29,347	43.9
> High School	20,685	30.9
Total	66,870	100.0
<i>Excluded Unknowns: 1,109 1.6</i>		

Poverty Level	Number	%
0 - 50	22,428	40.1
51 - 100	15,076	27.0
101 - 130	6,238	11.2
131 - 150	3,240	5.8
151 - 185	4,298	7.7
186 - 200	1,277	2.3
> 200	3,088	5.5
Adjunctive Eligibility	277	0.5
Total	55,922	100.0
<i>Excluded Unknowns: 102 0.2</i>		

Program Participation (3)	Number	%
WIC	56,024	100.0
SNAP	55,961	58.3
Medicaid	55,893	81.0
Tanf	55,960	13.1
<i>Excluded Unknowns:</i>		
WIC:	0	0.0
SNAP:	63	0.1
Medicaid:	131	0.2
Tanf:	64	0.1

Migrant Status	Number	%
Yes	652	1.0
No	67,327	99.0
Total	67,979	100.0
<i>Excluded Unknowns: 0 0.0</i>		

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) Prenatal program participation

* Percentages are not calculated if <100 records are available for analysis after exclusions



Reports – PNSS Behavioral Indicators

Table 2C
 2012 Pregnancy Nutrition Surveillance (1)
 Michigan
 Summary of Health Indicators

Page: 3
 Run Date: 09/08/2013

Summary of Health Indicators (2)				
	Michigan Prevalence		National Prevalence (Prior Year)	
	Number	%	Number	%
Medical Care				
1st Trimester	61,308	79.8	0	0
No Care	61,308	10.6	0	0
WIC Enrollment				
1st Trimester	67,038	38.0	0	0
2nd Trimester	67,038	29.6	0	0
3rd Trimester	67,038	15.3	0	0
Postpartum (3)	67,038	17.0	0	0
Prepregnancy Multivitamin Consumption (4)	51,283	22.3	0	0
Multivitamin Consumption During Pregnancy (5)	55,368	83.4	0	0
Smoking (6)			0	0
3 Months Prior to Pregnancy	63,074	32.4	0	0
During Pregnancy	55,457	19.0	0	0
Last 3 Months of Pregnancy	61,988	16.9	0	0
Postpartum	62,020	17.9	0	0
Smoking Changes				
Quit Smoking by First Prenatal Visit	18,754	44.3	0	0
Quit Smoking by First Prenatal Visit and Stayed Off Cigarettes	16,769	38.6	0	0
Smoking in Household				
During Pregnancy	55,382	16.0	0	0
Postpartum	61,994	4.9	0	0
Drinking				
3 Months Prior to Pregnancy	62,881	21.5	0	0
Last 3 Months of Pregnancy	62,097	0.6	0	0

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) Women who initially enrolled in WIC during the postpartum period.

(4) Women who reported taking a multivitamin four times a week or more in the month before pregnancy; proxy for folic acid consumption.

(5) Pregnant women who reported taking a multivitamin in the past month; proxy for prenatal iron consumption.

(6) Among women who smoked 3 months prior to pregnancy.

* Percentages are not calculated if <100 records are available for analysis after exclusions

Reports– PNSS Indicators by Race/Ethnicity



Table 9C
2012 Pregnancy Nutrition Surveillance ⁽¹⁾
Michigan

Page: 11
 Run Date: 09/06/2013

Maternal Health Indicators by Race/Ethnicity, Age, or Education

Maternal Health Indicators by Race/Ethnicity, Age, or Education ⁽²⁾														
	Prepregnancy BMI ⁽³⁾			Weight Gain ⁽⁴⁾			Anemia (Low Hb/Hct) ⁽⁵⁾				Gestational Diabetes		Hypertension During Pregnancy	
	Under-Weight	Over-Weight		< Ideal	>Ideal		3rd Trimester		Postpartum					
	Number	%	%	Number	%	%	Number	%	Number	%	Number	%	Number	%
Race/Ethnicity														
White, Not Hispanic	34,970	4.9	52.5	27,986	15.8	52.6	5,083	30.1	7,811	21.4	35,084	7.3	35,085	9.8
Black, Not Hispanic	17,110	3.9	59.6	13,731	18.6	51.7	3,333	52.3	3,062	43.7	17,194	5.8	17,204	12.2
Hispanic	5,787	2.3	61.1	4,353	22.9	44.5	727	36.9	942	29.2	6,182	9.0	6,180	6.9
American Individual/Alaska Native	234	3.8	56.8	171	12.9	50.3	29	*	49	*	216	8.8	217	12.4
Asian/Pacific Islander	1,117	9.8	30.3	858	26.1	32.9	192	30.2	281	26.8	1,171	11.9	1,178	5.9
Multiple Races	2,091	4.1	53.3	1,652	15.0	53.9	370	35.1	1,258	78.5	2,088	6.4	2,089	10.2
All Other/Unknown	13	*	*	8	*	*	2	*	1	*	9	*	9	*
Total	61,322	4.4	54.9	48,759	17.4	51.3	9,736	32.6	41,005	27.7	61,944	7.1	61,962	10.1
Age														
< 15 Years	130	9.2	36.9	103	19.4	58.3	26	*	1	*	137	1.5	136	9.6
15 - 17 Years	2,791	8.2	33.9	2,272	19.1	48.2	439	45.1	474	32.9	2,845	2.6	2,844	9.6
18 - 19 Years	6,655	7.2	41.8	5,304	17.1	52.2	997	38.6	1,222	34.7	6,555	3.6	6,561	9.9
20 - 29 Years	38,033	4.4	54.8	30,465	16.8	51.8	6,311	38.4	7,633	27.7	38,367	5.9	38,372	9.1
30 - 39 Years	12,190	2.2	66.4	9,513	18.2	50.6	1,767	36.2	9,045	77.3	12,467	12.9	12,475	12.8
>= 40 Years	881	1.6	72.1	626	21.7	49.4	117	36.8	266	25.6	847	19.0	847	20.4
Unknown	642	4.4	51.7	476	25.8	40.3	79	*	144	#####	726	7.3	727	8.0
Total	61,322	4.4	54.9	48,759	17.4	51.3	9,736	32.6	41,005	27.7	61,944	7.1	61,962	10.1
Education														
< High School	14,940	6.0	49.9	11,571	20.7	47.3	2,408	44.5	2,691	34.0	15,455	5.9	15,459	9.0
High School	26,780	4.3	55.7	21,384	17.0	51.9	4,269	38.8	5,229	28.4	26,911	7.0	26,914	10.1
> High School	19,053	3.4	57.9	15,384	15.2	53.7	2,998	33.0	14,208	73.1	18,963	8.3	18,973	11.2
Excluded Unknown	549	4.4	51.5	420	24.5	42.4	61	*	124	27.4	615	7.8	616	8.4
Total	61,322	4.4	54.9	48,759	17.4	51.3	9,736	32.6	41,005	27.7	61,944	7.1	61,962	10.1

(1) Reporting period is January 1 through December 31

(2) Excludes records with unknown data errors.

(3) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight(BMI 18.5 to 24.9), overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).

(4) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28-40 pounds), normal weight pregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese pregnancy (ideal weight gain = 11 to 20 pounds).

(5) Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States", adjusted for altitude and smoking.

* Percentages are not calculated if <100 records are available for analysis after exclusions

Reports – PNSS Trend Reports



Table 14C
2012 Pregnancy Nutrition Surveillance (1)
Michigan
Summary of Trends in Racial Ethnic Distribution

Page: 16
Run Date: 09/08/2013

Summary of Trends in Racial and Ethnic Distribution (2)								
Year	Number Included in Analysis	White, Not Hispanic %	Black, Not Hispanic %	Hispanic %	American Indian/Alaska Native %	Asian/Pacific Islander %	Multiple Races %	All Other/Unknown %
2012	67,560	56.6	27.7	10.0	0.4	1.9	3.4	0.6
2011	67,851	57.4	27.5	10.1	0.4	1.7	2.9	0.6
2010	68,087	57.1	27.7	10.5	0.3	1.8	2.6	0.7

Reports – PedNSS 2012



Table 1C
2012 Pediatric Nutrition Surveillance ⁽¹⁾
Michigan
Summary of Demographic Indicators ^(2,3)
Children Aged < 5 Years

Page: 1
 Run Date: 09/08/2013

Total Records	Number
Individual Children	257,024
Total Records (All Visits)	413,376

Source of Data	Number	%
WIC	257,024	100.0
EPSDT	0	0.0
Child Health-MCH	0	0.0
Child Health-HMO	0	0.0
HeadStart	0	0.0
School Health	0	0.0
Other	0	0.0
Total	257,024	100.0
Excluded Unknown:	0	0.0

Race/Ethnic Distribution	Number	%
White, Not Hispanic	129560	50.4
Black, Not Hispanic	67286	26.2
Hispanic	35321	13.7
American Individual/Alaska Native	742	0.3
Asian/Pacific Islander	4008	1.6
Multiple Races	19962	7.8
All Other	48	0.0
Total	256,927	100.0
Excluded Unknown:	97	0.0

Age Distribution	Number	%
0 - 5 Months	56,826	22.1
6 - 11 Months	29,021	11.3
12 - 23 Months	53,940	21.0
24 - 35 Months	42,044	16.4
3 - 4 Years	75,193	29.3
Total	257,024	100.1

% of Poverty Level	Number	%	Program Participation	Number	%
0 - 50	101,433	42.7	WIC	257,024	100.0
51 - 100	73,652	31.0	SNAP	256,307	60.6
101 - 130	27,257	11.5	Medicaid	254,689	81.2
131 - 150	12,637	5.3	Tanf	256,313	11.7
151 - 185	15,105	6.4	Excluded Unknown		
186 - 200	2,530	1.1	WIC	0	0.0
Over 200	5,153	2.2	SNAP	717	0.3
Adjunctive Eligibility	0	0.0	Medicaid	2,335	0.9
Total	237,767	100.2	Tanf	711	0.3
Excluded Unknown:	19,257	7.5			

Migrant Status	Number	%
Yes	2,081	0.8
No	254,943	99.2
Total	257,024	100.0
Excluded Unknown:	0	0.0

(1) Reporting period is January 1 through December 31
 (2) Analyses based on one record per child
 (3) Excludes records with unknown data errors.
 (4) Records rejected if date of birth and date of visit unknown
 * Percentages are not calculated if <100 records are available for analysis after exclusions

PedNSS – Behavioral Indicators



Table 2C
 2012 Pediatric Nutrition Surveillance (1)
 Michigan
 Summary of Health Indicators (2)
 Children Aged < 5 Years

Page: 2
 Run Date: 09/10/2013

Summary of Health Indicators (3)				
	Michigan Prevalance		National Prevalance (Prior Year)	
	Number	%	Number	%
Birthweight			0	0
Low	58,707	9.7	0	0
High	58,707	7.1	0	0
Height and Weight (5,6) (3)			0	0
< 5 Yrs Short Stature	249,036	5.8	0	0
< 5 Yrs Underweight	249,036	2.9	0	0
< 5 Yrs Obese	249,036	10.7	0	0
>= 2 Yrs Overweight	112,234	16.4	0	0
>=2 Yrs Obese	112,234	13.8	0	0
Anemia (7)			0	0
Low Hb	164,313	16.1	0	0
Low Hct	20	*	0	0
Low Hb/Hct	164,326	16.1	0	0
Breastfeeding (8)			0	0
Ever Brestfed	49,750	72.6	0	0
Breastfed At Least 6 Months	31,418	18.8	0	0
Breastfed At Least 12 Months	25,925	9.4	0	0
Smoking in Household	255,219	5.6	0	0
<= 2 Hours TV Viewing/ Day (9)	124,279	63.7	0	0

(1) Reporting period is January 1 through December 31.

(2) Analyses based on one record per child.

(3) Excludes records with unknown data or errors.

(4) Infants born during the reporting period included in the analysis. Low birthweight is defined as < 2500 grams and high birthweight is defined as > 4000 grams.

(5) Based on 2006 WHO growth chart percentiles for children under 2 years of age; short stature is defined as length-for-age <= 2.3rd percentile, underweight is defined as weight-for-length <= 2.3rd percentile, and high weight-for-length (labeled as "Obese") is defined as >= 97.7th percentile.

(6) Based on 2000 CDC growth chart percentiles for children 2 years of age and older; short stature is defined as height-for-age < 5th percentile, underweight is defined as BMI-for-age < 5th percentile, overweight is defined as BMI-for-age >= 85th to < 95th percentile, and obesity is defined as >= 95th percentile.

(7) Based on 1998 CDC MMWR, "Recommendations to Prevent and Control Iron Deficiency in the United States", altitude adjusted, children 6 months of age and older included in the analysis.

(8) Infants born during the reporting period included in the Ever Breastfed analysis. Infants who turned 6 months of age during the reporting period by/on their date of visit included in the Breastfed At Least 6 Months analysis. Children who turned 12 months of age during the reporting period by/on their date of visit included in the Breastfed At Least 12 Months analysis.

(9) Children aged 2 years and older included in the analysis.

* Percentages are not calculated if < 100 records are available for analysis after exclusions.

PedNSS – Trend Reports



Table 10C
 2012 Pediatric Nutrition Surveillance (1)
 Michigan
 Summary of Trends in Racial and Ethnic Distribution
 Children Aged < 5 Years (2)

Page: 1
 Run Date: 09/09/2013

Summary of Trends in Racial and Ethnic Distribution								
Year	Number Included in Analysis	White, Not Hispanic %	Black, Not Hispanic %	Hispanic %	American Indian/Alaska Native %	Asian/Pacific Islander %	Multiple Races %	All Other/Unknown %
2012	257,024	50.4	26.2	13.7	0.3	1.6	7.8	0.0
2011	257,910	51.0	25.7	14.0	0.3	1.5	7.5	0.0
2010	258,641	43.5	21.5	12.1	0.2	1.2	6.1	0.0

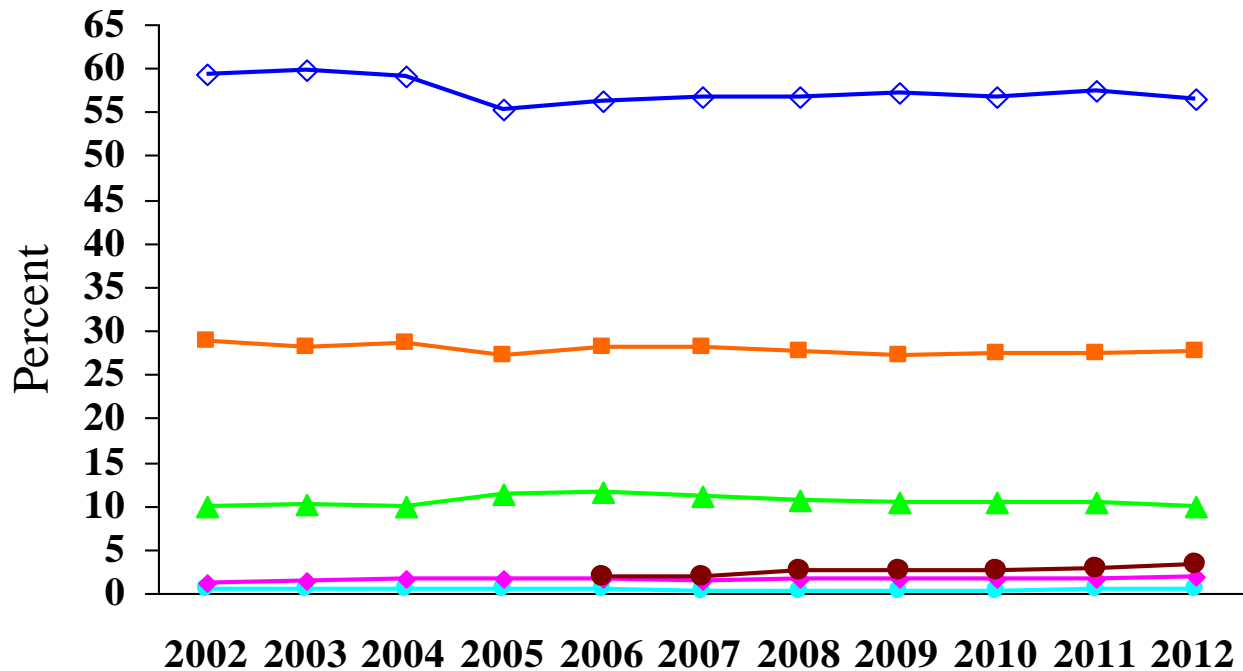
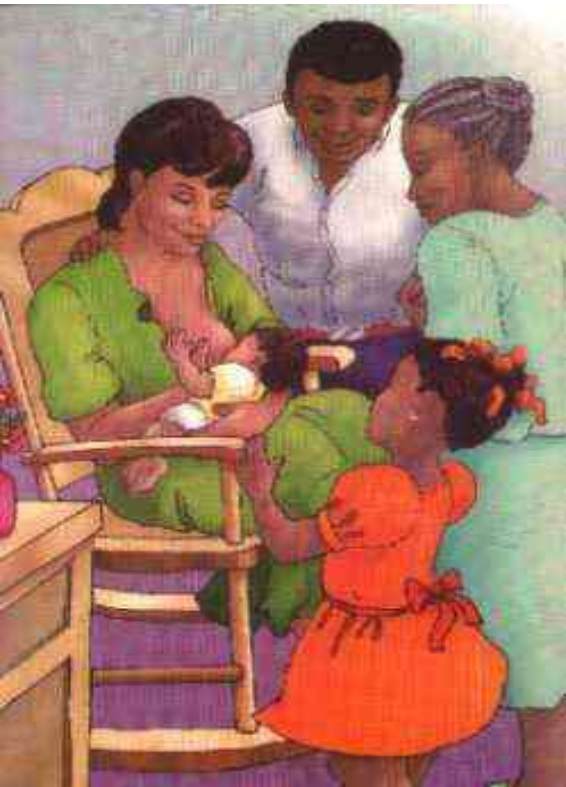
(1) Reporting period is January 1 through December 31.

(2) Analyses based on one record per child.

(3) Excludes records with errors.

* Percentages are not calculated if < 100 records are available for analysis after exclusions.

Profile of Michigan WIC Mothers, by Race/Ethnicity



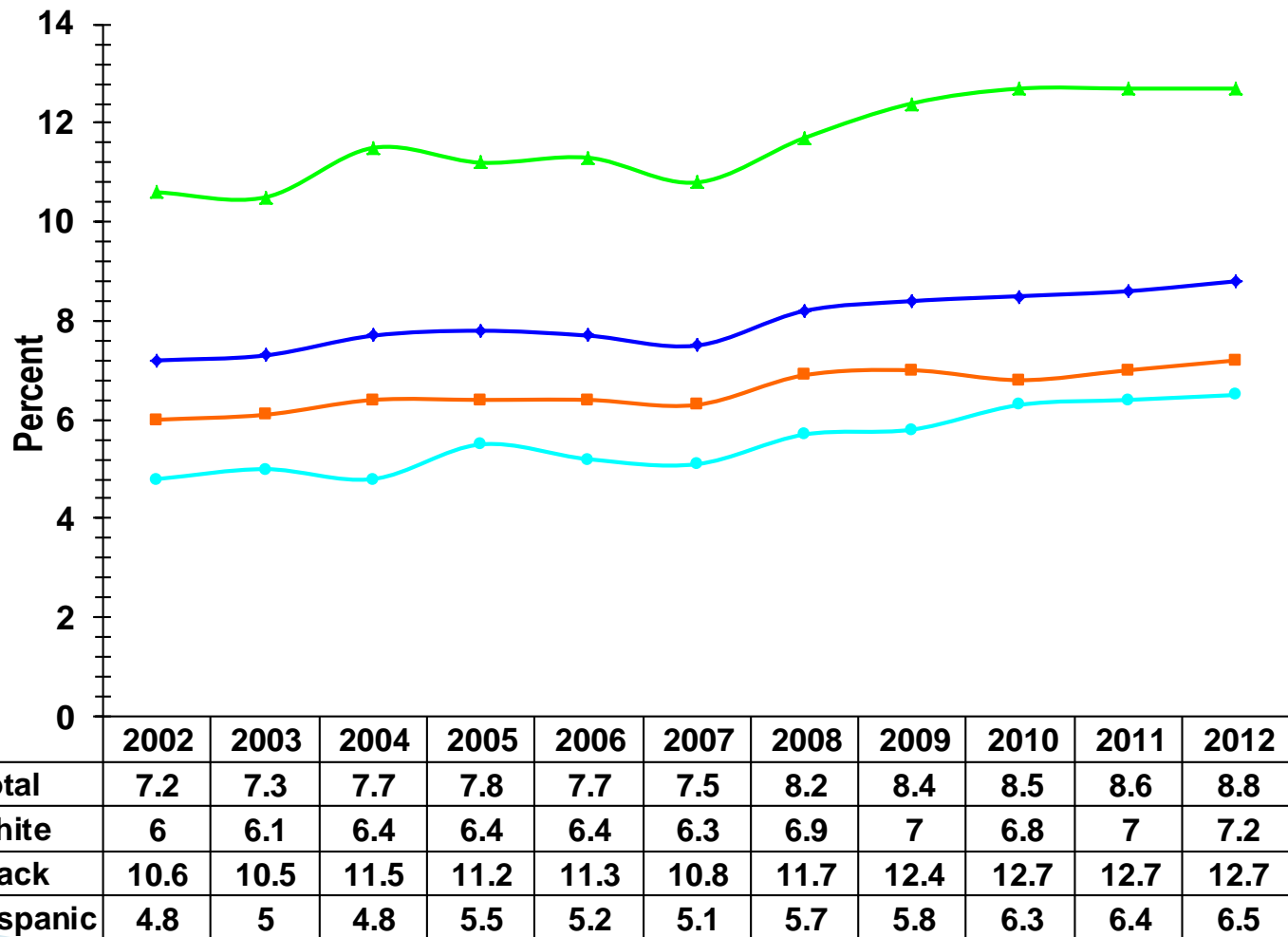
PNSS 2012

- Black
- ▲ Hispanic
- Native American
- ◆ Asian
- Multiple Races

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Black	28.8	28.1	28.6	27.3	28.1	28.2	27.7	27.2	27.5	27.5	27.7
Hispanic	10	10.1	10	11.3	11.5	11.2	10.7	10.5	10.4	10.4	10
Native American	0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.4	0.4
Asian	1.3	1.5	1.6	1.7	1.7	1.5	1.6	1.7	1.7	1.7	1.9
Multiple Races					1.9	2	2.7	2.5	2.6	2.9	3.4



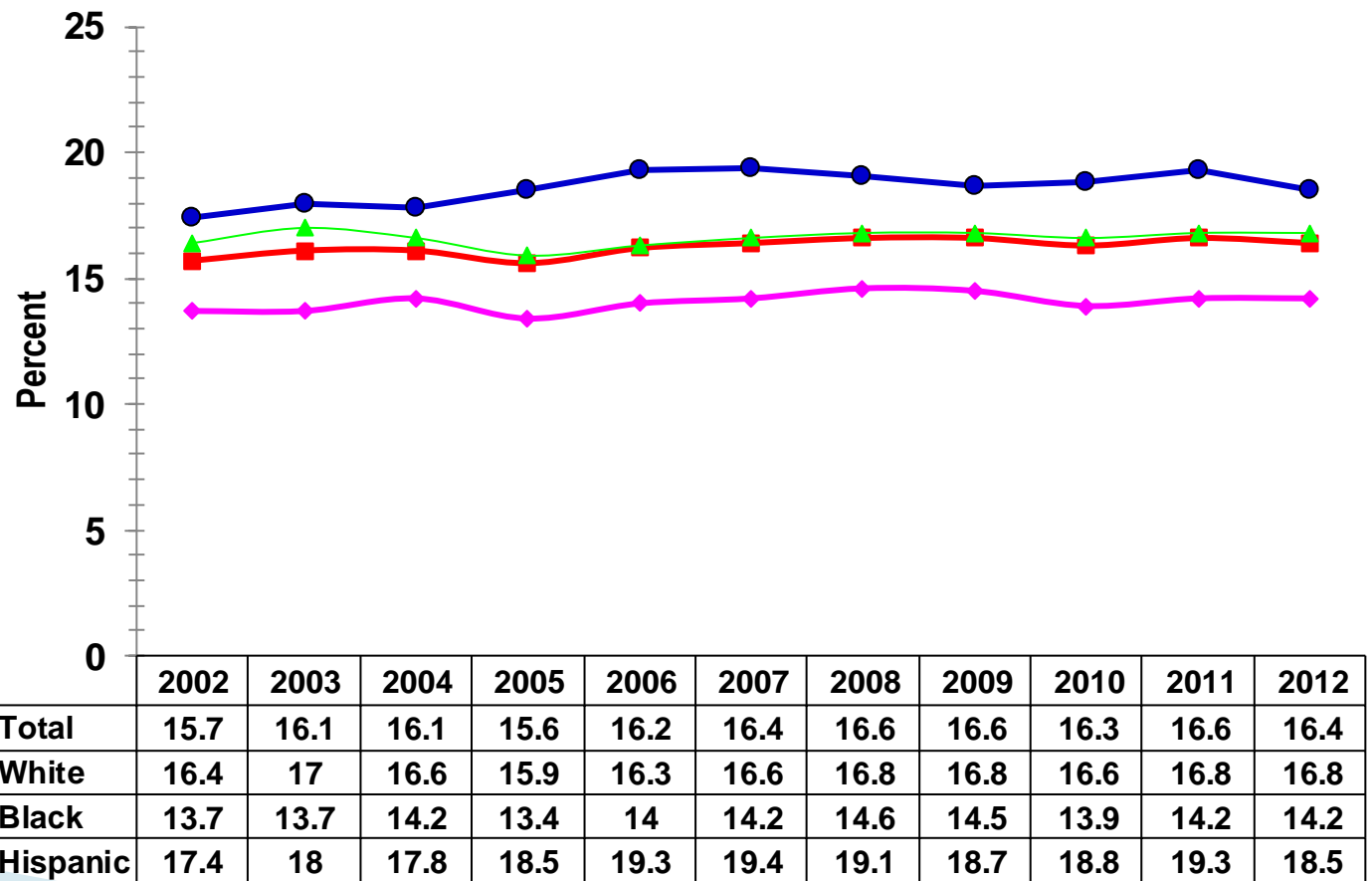
Low Birth weight by Race/Ethnicity



PNSS 2012



Trends in Overweight (85th–<95th) by Race/Ethnicity among Michigan WIC Children Two to Five Years Old



PedNSS 2012

Proposal for future Plans



Phase One-Pilot

- ▶ Evaluate the effectiveness of MI-PNSS & PedNSS
- ▶ Evaluate the operation cost of the project
- ▶ 2010, 2011 & 2012 data from MW Regional States (Indiana, Illinois, Minnesota, Ohio and Wisconsin)
- ▶ Extracts will be run through the system processes and the reports will be generated

**A Great Opportunity
to be a part of an Exciting Start!**

Phase Two-Implementation



Michigan PNSS & PedNSS Project Estimated Cost of Operation

Activity	Description	Year 1 ¹	Year 2 ¹	Year 3 ¹	Year 4 ¹	Year 5 ¹
Server	Acquisition ^{2,3}	\$ 80,546.00	\$ -	\$ -	\$ -	\$ -
	Server Warranty	\$ 10,662.44	\$ 10,662.44	\$ 10,662.44	\$ 10,662.44	\$ 10,662.44
<i>Sub Total</i>		\$ 91,208.44	\$ 10,662.44	\$ 10,662.44	\$ 10,662.44	\$ 10,662.44
Hosting Charges	Data ⁴	\$ 4,367.66	\$ 5,823.55	\$ 7,279.44	\$ 8,735.33	\$ 10,191.22
	Reports	\$ 2,073.60	\$ 4,147.20	\$ 6,220.80	\$ 8,294.40	\$ 10,368.00
<i>Sub Total</i>		\$ 6,441.26	\$ 9,970.75	\$ 13,500.24	\$ 17,029.73	\$ 20,559.22
Personnel Costs	Programmer	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00
	DBA	\$ 15,840.00	\$ 15,840.00	\$ 15,840.00	\$ 15,840.00	\$ 15,840.00
	Consultant ⁵	\$ 100,000.00	\$ 80,000.00	\$ 80,000.00	\$ 80,000.00	\$ 80,000.00
<i>Sub Total</i>		\$ 165,840.00	\$ 145,840.00	\$ 145,840.00	\$ 145,840.00	\$ 145,840.00
Grand Total		\$ 263,489.70	\$ 166,473.19	\$ 170,002.68	\$ 173,532.17	\$ 177,061.66

Notes

¹ Hosting charges include all States, Territories, and ITOs. This cost could be reduced (due to less required SAN) if non PNSS/PedNSS agencies are removed from estimate.

² It is not clear if a dedicated server is required to host non-SOM data.

³ Due to the priority of MI PNSS/PedNSS, a DR server may not be needed and cost would be reduced by \$26,848.66.

⁴ Charges include an estimate for 2010, 2011, and 2012 PNSS & PedNSS data.

⁵ Project year 1 includes additional funds for support to States.

Progress Report



- Pilot phase has started with MWR States
- Indiana, Illinois, Ohio and Wisconsin & Minnesota have agreed to participate in the pilot project
- MOUs/data sharing agreements are signed with four of the states
- Documents for access request to the application have been sent
- Once the States obtain access, they can submit their data to MI PNSS & PedNSS application for years 2010 – 2012
- Data quality reports and Master files will be generated
- Goal is to have the PNSS & PedNSS reports generated for the participating states by spring 2014

Discussion



- ▶ Field Specifications
- ▶ File Format
- ▶ Report Accessibility
- ▶ Project Management & Customer Support
 - Michigan
 - USDA-NWA
 - Third Party Consultant
- ▶ Funding source and method
 - Single source– Federal Agency, non–profit organization
 - Annual subscription charge per contributor
- ▶ Data sharing & security
 - Memorandum Of Understanding (MOU)
- ▶ Next Steps
 - How do we get to the Implementation & Operation phase

MI-PNSS & PedNSS



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