

Collecting and Monitoring Quality Data



Hillary Turner, MPH
Kobra Eghtedary, PhD
MDCH/WIC

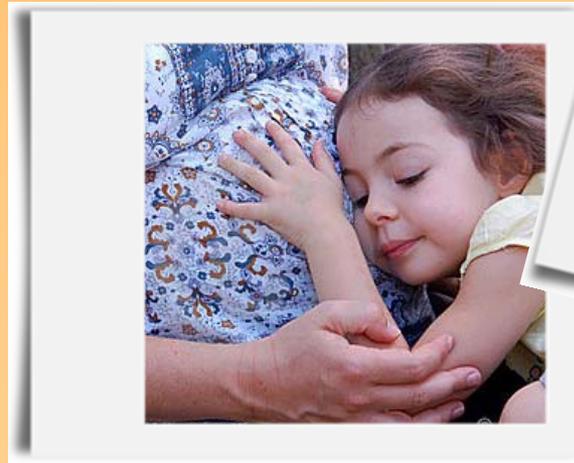
Summary of Presentation

- Breastfeeding and Michigan WIC
- MI-WIC Breastfeeding Data Collection
- Data Quality
- Michigan WIC Data
- MI-WIC Reports
- MI-WIC and Data Quality Success

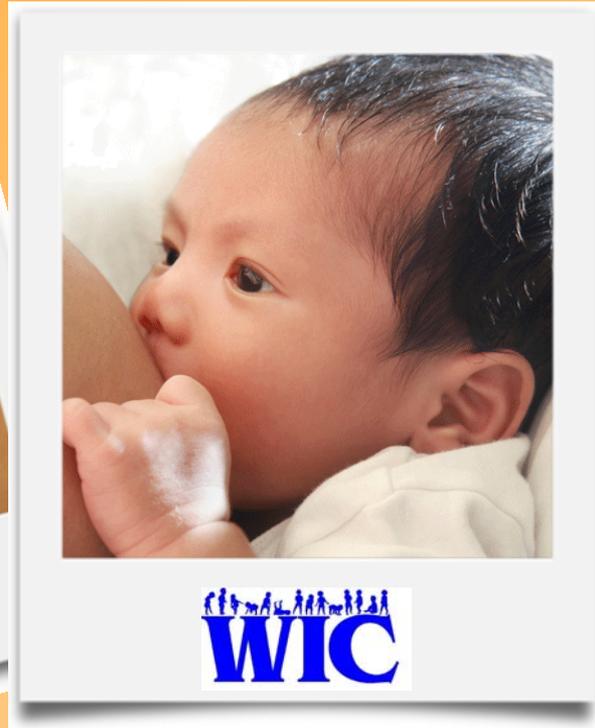
Mission

To Improve:

- Maternal Health
 - Pre and post-natal care
 - Behavioral health
 - Maternal weight
- Pregnancy Outcomes
 - Birthweight
 - Gestational age
- Infant Health
 - **Breastfeeding**
 - Iron status
- Young Children
 - Growth pattern
 - Iron status



Breastfeeding



The Best Beginning!

Benefits of Breastfeeding

Baby

- Protects baby from illness
- Helps brain development
- Lowers the risk of asthma
- Decreases chances of allergies
- Lessens the risk of developing juvenile diabetes
- Reduces the risk of:
 - SIDS
 - Type II Diabetes

Mother

- Bonding
- Reduces the risk of:
 - Breast Cancer
 - Ovarian Cancer
 - Diabetes

AHRQ 2007



WIC Provides

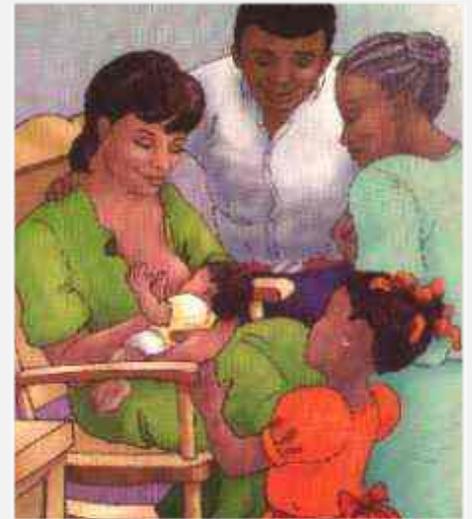
- Supplemental Nutritious Food
- Nutrition Education
- Breastfeeding Counseling & Support



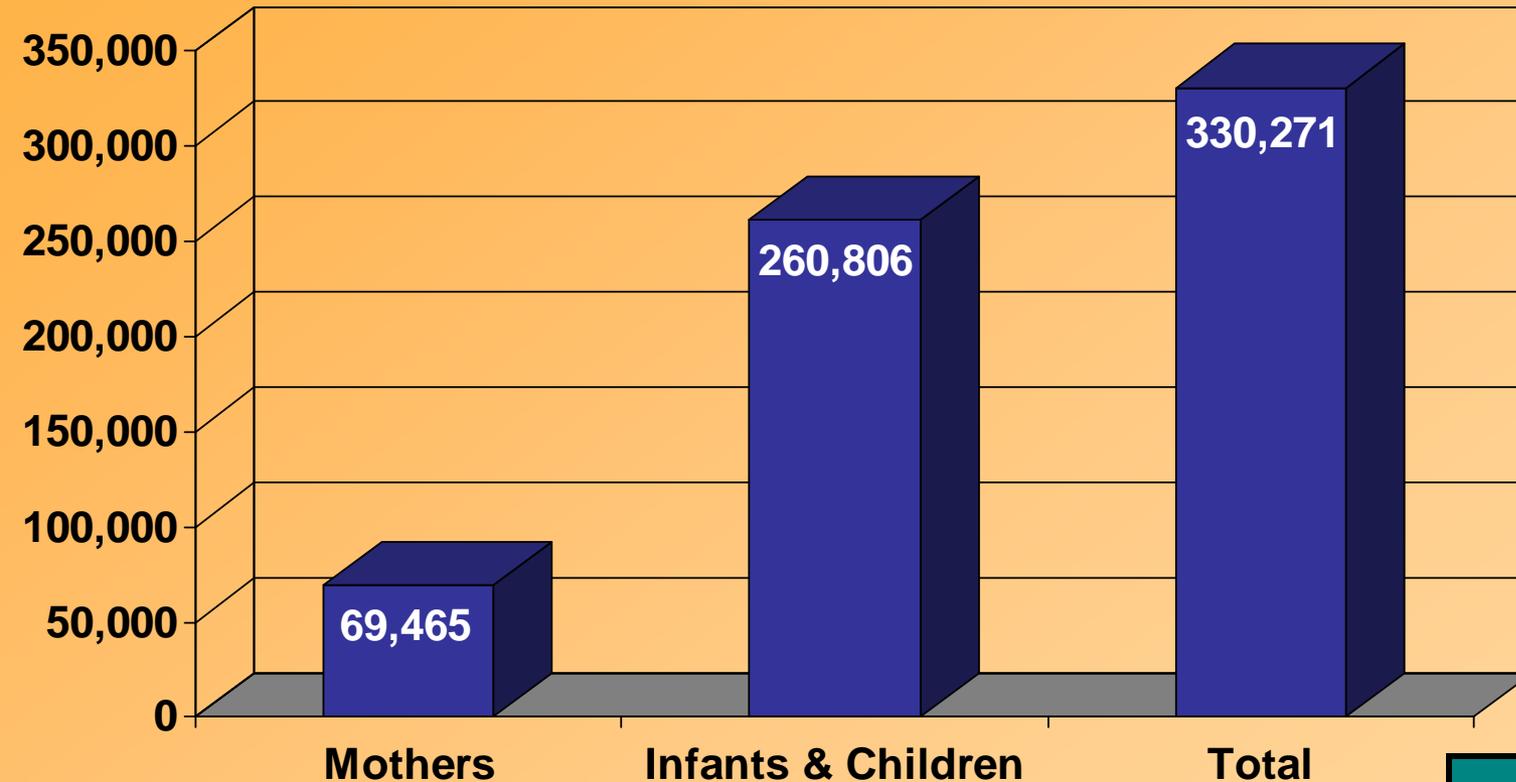
WIC Provides

Referrals to health care and social-service providers:

- Prenatal care
- Lactation Consultant
- Lactation Peer Counselors
- La Leche League
- Breast Pump Rental Locations



WIC Population, 2009



Over
8.9 million
infants and
children
&
Over
1.3 million
mothers
served
nationally

(CDC 2009)

Michigan
ranked **8th**
(FY 2007)

Nutrition Surveillance Systems

- CDC Pregnancy Nutrition Surveillance System (PNSS)
 - Pre & post natal care, Maternal Weight, Gestational Age, Behavior
- CDC Pediatric Nutrition Surveillance System (PedNSS)
 - **Breastfeeding**, Growth, Iron status



Breastfeeding Data Collection

- **Now** (required)
 - Is this child currently breastfed?
- **Initiation** (required)
 - Was this baby ever breastfed or fed breast milk?
- **Duration**
 - How old was this child when he/she completely stopped breastfeeding or being fed breast milk? *Reason?
- **Exclusivity/Formula Use**
 - How old was this child when he/she was first fed something other than breast milk? (months, weeks, days) *Type of Food



Active Record

testerri, andrea

Cat: IBP (female)

ID: 300 845 553

DOB: 10/16/2010

Age: 4 mos, 3 wks

Cert: 12/09/10 - 10/15/11

Status: Certified

Scheduling Tasks

Guided Script

Client Care

Logoff

Medical Information

BF Statistics

Was this child ever breastfed or fed breast milk?*

Yes No Unknown

→ Initiation

Is this child currently breastfed?*

Yes No

How old was this child when he/she was first fed something other than breast milk? Exclusively Breastfed
(i.e., formula, water, infant cereal, etc.)

Months Weeks Days Type of Food
Age: Unknown

↗ Exclusivity

How old was this child when he/she completely stopped breastfeeding or being fed breast milk?

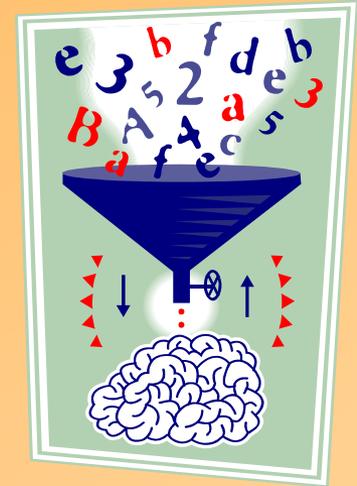
Months Weeks Days Reason Breastfeeding Ended
Age: Unknown

→ Duration

Save Cancel Next

Definitions

- **Data Quality:**
 - Validity of the data and identifies questionable data items (completeness, accuracy, consistency)



- **Completeness:**
 - No missing data
- **Accuracy:**
 - Correctly reflects what it is describing
- **Consistency:**
 - Agreement between data items

MI-WIC Data Quality Checks

- Below & Above Acceptable Range
- Biologically Implausible Values (BIVs)
- Unknown values
 - Missing data (blue, required items)
- Cross-Check Errors
 - Data inconsistencies

Active Record
testerri, andrea
Cat: IBP (female)
ID: 300 845 553
DOB: 10/16/2010
Age: 4 mos, 3 wks
Cert: 12/09/10 - 10/15/11
Status: Certified

- Scheduling Tasks
- Guided Script
- Client Care
- Logoff

Medical Information | **BF Statistics**

Was this child ever breastfed or fed breast milk?*
 Yes No Unknown

Is this child currently breastfed?*
 Yes No

How old was this child when he/she completely stopped breastfeeding or being fed breast milk?
Months: Weeks: Days:
Age: Unknown

Exclusively Breastfed

Reason Breastfeeding Ended

Save Cancel Next

Cross-check
Error
(example)

Microsoft Internet Explorer

 Client category and client breastfeeding status do not match. Please make the appropriate changes.

OK

Data Use Depends on
Data Quality

Benefits of High Data Quality

- Population specific information
 - Assess needs of clients
 - Highlight critical periods for intervention
 - Compare to other LA
 - Unique vs. shared data
- Community partnerships
- Increased client satisfaction
- Accuracy in Reporting

Challenges with Data Quality

- Missing values
- Low Data Quality
 - May reflect:
 - Data processing problems
 - Measurement errors
 - Recording errors
- Inaccuracy in reports

MI-WIC System Checks

- Implausible values
- Inconsistencies
- Missing Values

The Quest for Quality!

The Solution

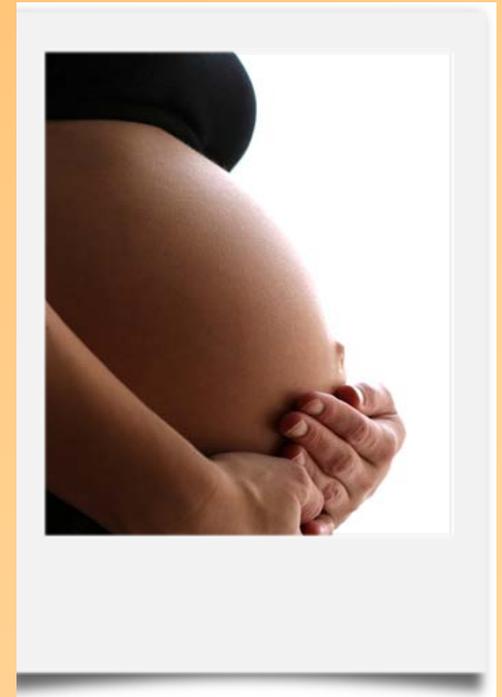
- Training on MI-WIC fields
- Training on Data Quality
- Utilize Data Quality Reports for Local Agencies (coming soon)

Data Use Depends on
Data Quality

Starts with YOU!

2009 Participant Profile: Women

- 57.5% White
- 27.4% Black
- 10.6% Hispanic
- 73.7% between 18-29 years
- 72.2% at least high school educated
- 76.9% live at or below 150% poverty line
- 73.9% Medicaid

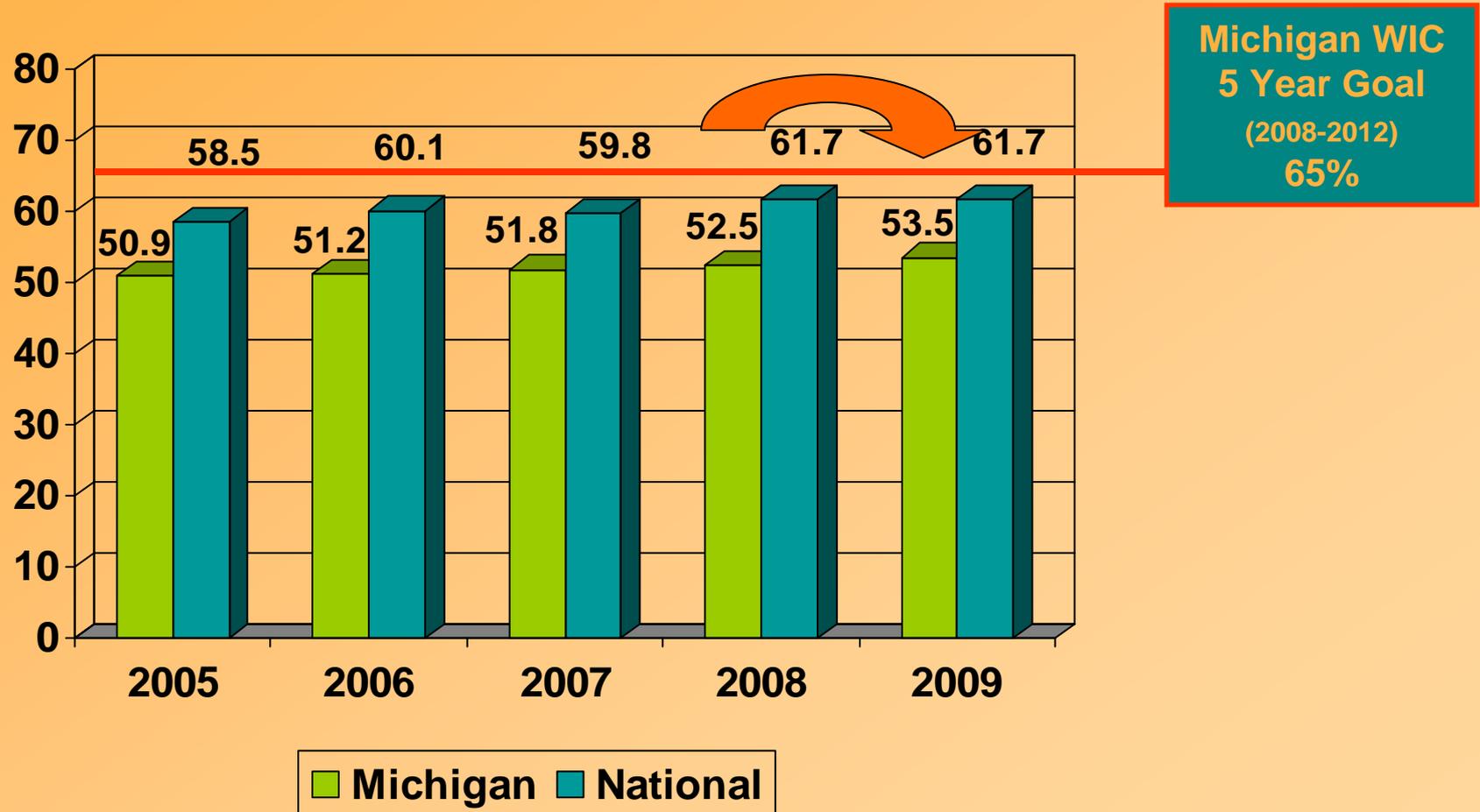


2009 Participant Profile: Infants & Children

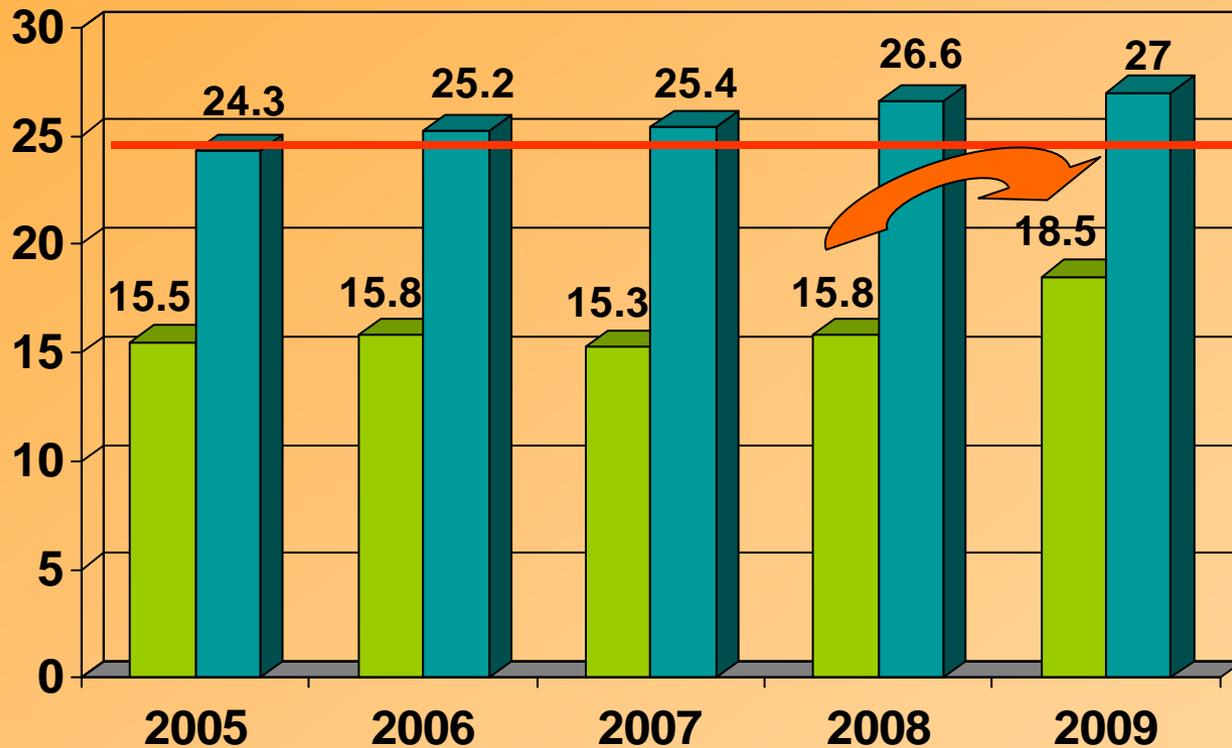
- 51.9% White
- 25.5% Black
- 14.4% Hispanic
- 32.8% less than 12 months old
- 53.5% Initiated Breastfeeding
- 81.6% watched less than 2 hours/day of television



Breastfeeding Initiation



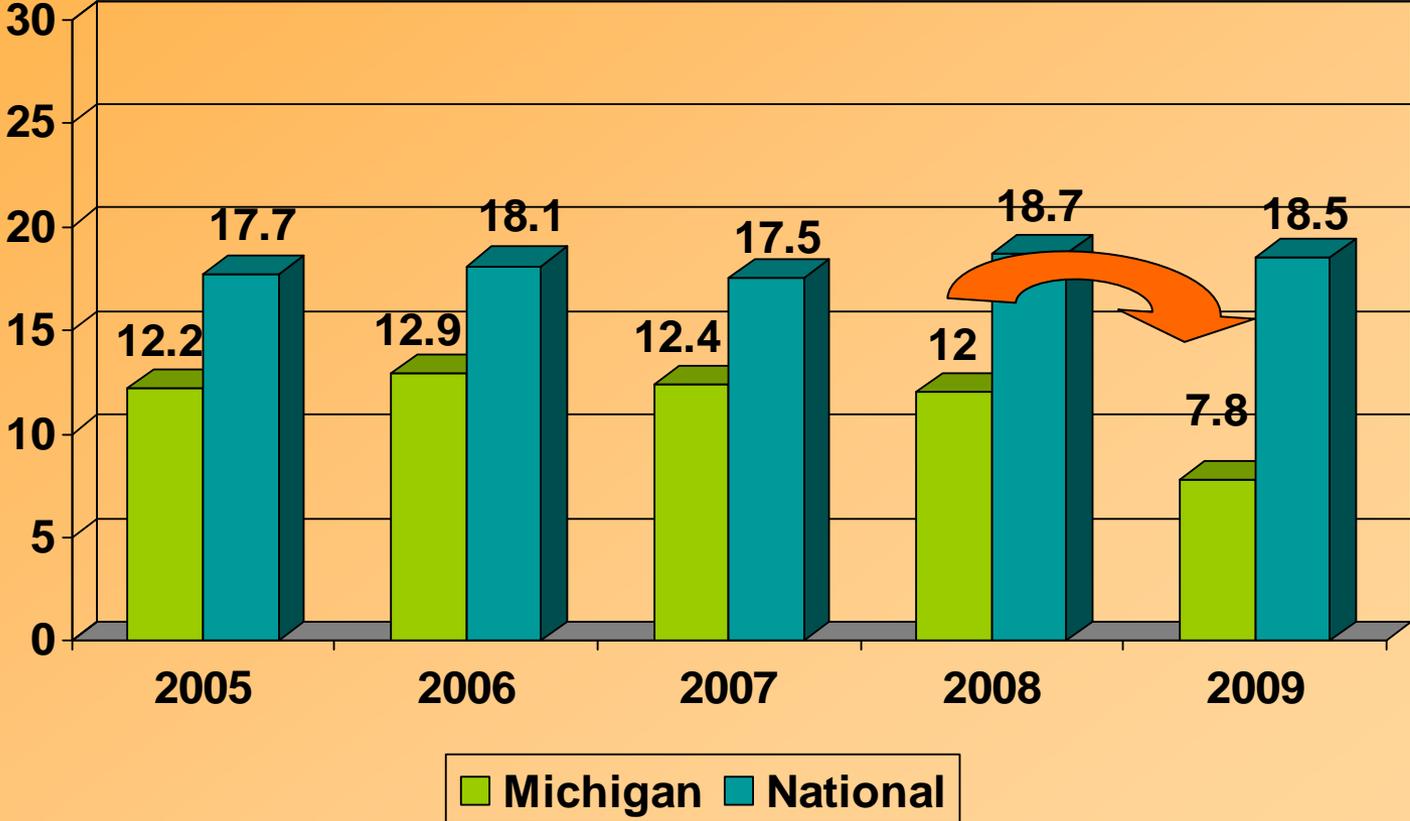
Breastfed to at least 6 months



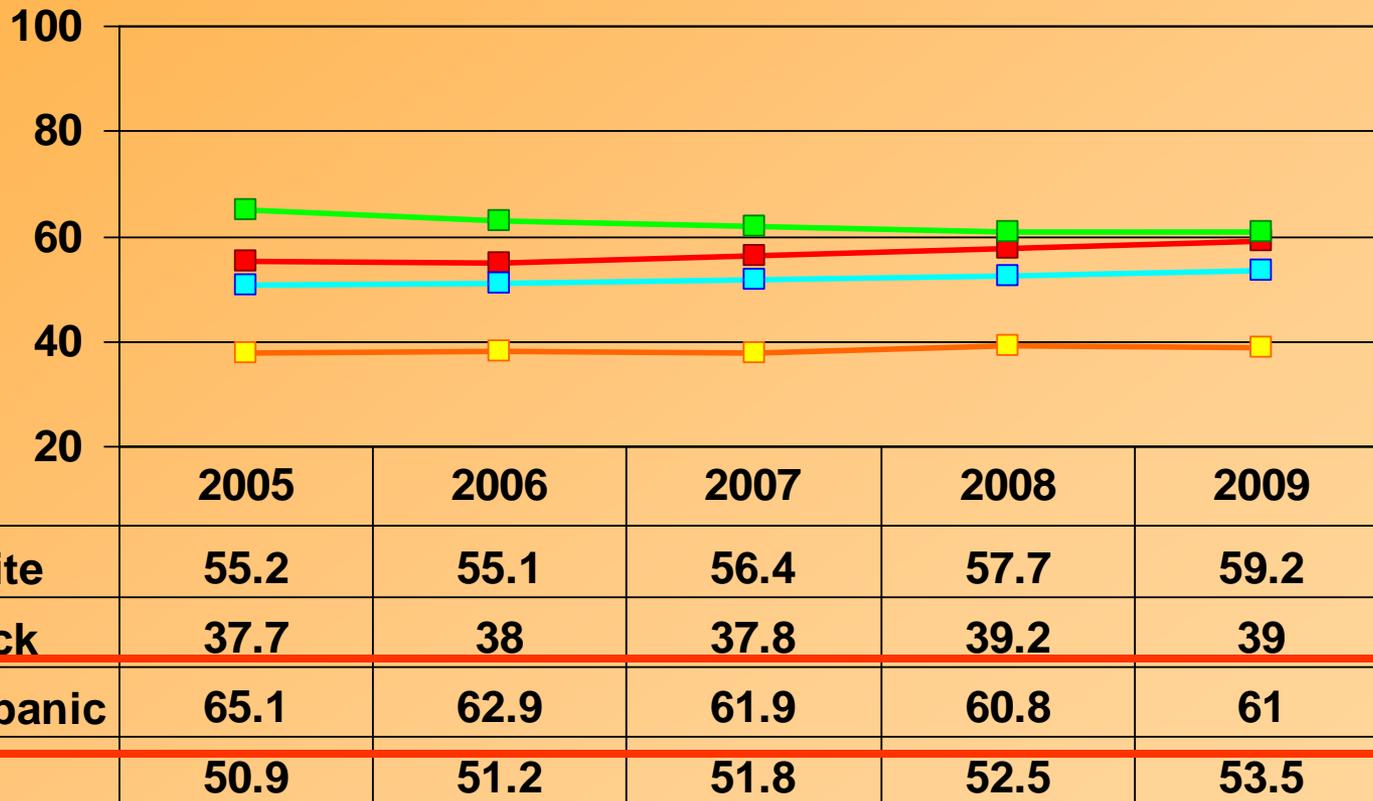
Michigan WIC
5 Year Goal
24%

■ Michigan ■ National

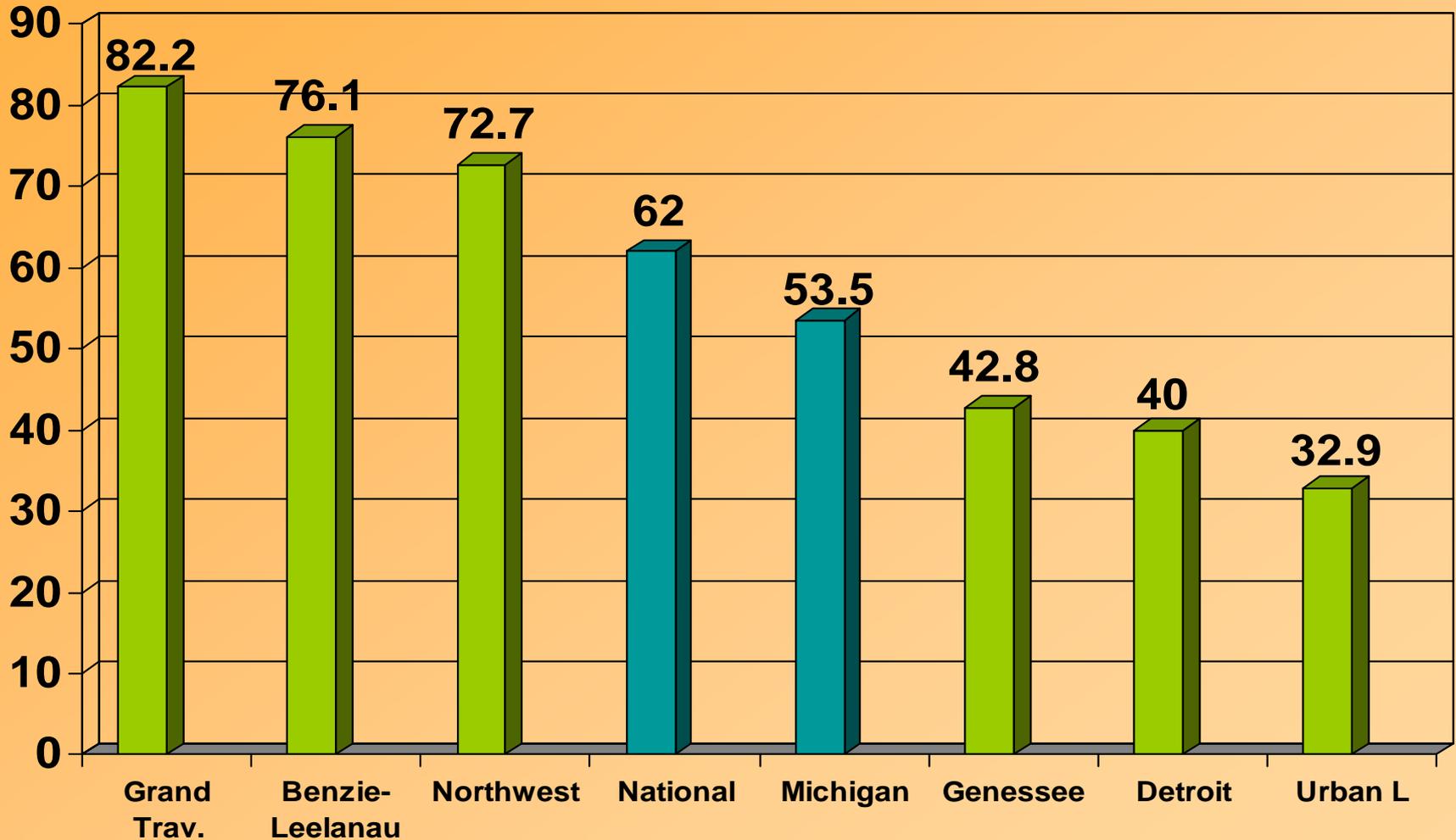
Breastfed At Least 12 Months



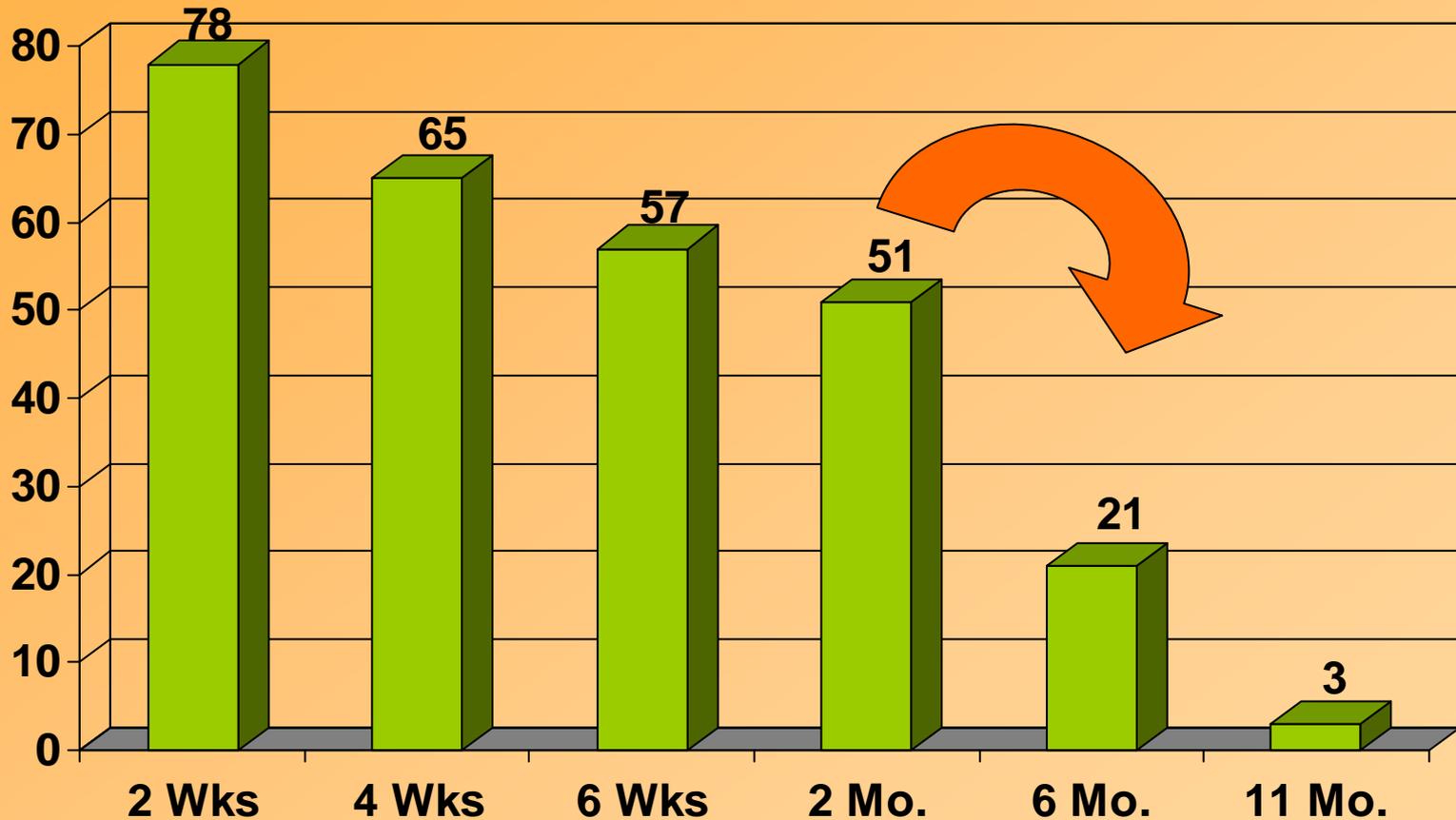
Breastfeeding Initiation Trends by Race



Breastfeeding Initiation, LA 2009



Breastfeeding Duration (Critical Periods of Interventions)



*Of those that initiated breastfeeding

Point-in-time Report 3/17/2011

MI-WIC Reports

Types of Breastfeeding Reports

- MI-WIC Breastfeeding Initiation and Duration Production Report
- MI-WIC Pre-Defined Report
- Breastfeeding Ad-hoc Report

Breastfeeding Initiation and Duration Production Report

Breastfeeding Production Report

- Provides a point-in-time summary of breastfeeding statistics, active clients
- Count and Rate of BF Initiation for:
 - Infants only, Infants and Children combined, Infants of prenatal WIC Moms
- Count and Rate of BF Duration
 - Infants and Children
- Count and Rate of BF Exclusivity
 - Infants and Children
 - 3 and 6 month durations

Breastfeeding Production Report (continued)

- Information from infants and children records
- Reported durations include those currently breastfeeding and those that initiated breastfeeding but are no longer breastfeeding

How is Duration Calculated?

Clients who are no longer Breastfeeding

How old was this child when he/she completely stopped breastfeeding or being fed breast milk?

Months	Weeks	Days		Reason Breastfeeding Ended
Age: <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Unknown	<input type="text"/>

Clients who are currently Breastfeeding

Report Run Date - Date of Birth = Duration



Active Record

- Scheduling Tasks
- Guided Script
- Client Care
- Logoff

Scope

Local Agency
 State
 Clinic

Search

ID Last Name
 Client
 Authorized Person

OR

Last Name	First Name	I	Birth Date	AP Last Name

Print List Print Labels

Reports

- Active Client
- Administration
- Breast Pumps
- Breastfeeding Initiation and Duration**
- Client Load
- EBT
- Education and Referrals
- MIHP Billing Report
- Monitoring
- Nutr and Health Summary
- Participation
- Scheduler
- WIC Health.org Error Report

Make Active Transfer In State Cancel



- Active Client
- Administration
- Breast Pumps
- Breastfeeding Initiation and Duration

Scope

Local Agency
 State
 Clinic

Active Record

[Empty list area]

- Scheduling Tasks
- Guided Script
- Client Care
- Logoff

Report Parameters -- Web Page Dialog

Breastfeeding Initiation and Duration

State/Local Agy

Local Agy/State

- 010000 District Health Department No. 2
- 020000 Luce-Mackinac-Alger-Schoolcraft District Health Dept.
- 040000 District Health Department #4
- 050000 Health Department of Northwest Michigan
- 060000 Central Michigan District Health Department
- 070000 Western Upper Peninsula Health Dept.
- 080000 Barry-Eaton District Health Department
- 090000 Bay County Health Department
- 100000 Grand Traverse County Health Department
- 110000 Berrien County Health Department

Run Report Cancel

ertified Only

Find

art Cert End Tes

Make Active Transfer In State Cancel

Breastfeeding Initiation and Duration Report

Generated Date: 03/29/2011

Agency	Breastfeeding Initiation			Breastfeeding Duration												Breastfeeding Exclusivity	
	Infants and Children	Infants Only	Infants of Prenatal WIC Mom	1 wk	2 wks	4 wks	6 wks	2 months	3 months	6 months	12 months	18 months	2 yrs	3 yrs	4 yrs	3 months	6 months
State	105,518	34,153	22,451	7,140	10,944	7,956	4,996	8,921	20,181	19,757	8,404	1,846	1,132	127	22	15,398	12,163
	55%	57%	66%	6.8%	10.4%	7.5%	4.7%	8.5%	19.1%	18.7%	8.0%	1.7%	1.1%	0.1%	0.0%	14.6%	11.5%
01	722	228	125	60	96	60	43	69	149	125	49	9	4	1	1	120	71
	57%	62%	55%	8.3%	13.3%	8.3%	6.0%	9.6%	20.6%	17.3%	6.8%	1.2%	0.6%	0.1%	0.1%	16.6%	9.8%
02	427	132	102	23	40	33	24	33	86	98	31	6	8	0	0	83	85
	59%	66%	77%	5.4%	9.4%	7.7%	5.6%	7.7%	20.1%	23.0%	7.3%	1.4%	1.9%	0.0%	0.0%	19.4%	19.9%
04	815	228	154	44	59	66	44	67	158	146	71	13	13	2	0	175	108
	54%	58%	68%	5.4%	7.2%	8.1%	5.4%	8.2%	19.4%	17.9%	8.7%	1.6%	1.6%	0.2%	0.0%	21.5%	13.3%
05	1,671	485	348	83	137	105	91	123	315	344	158	35	26	1	0	404	281
	70%	74%	72%	5.0%	8.2%	6.3%	5.4%	7.4%	18.9%	20.6%	9.5%	2.1%	1.6%	0.1%	0.0%	24.2%	16.8%
06	2,449	699	456	173	268	186	136	183	422	409	186	42	27	4	1	436	295
	60%	61%	65%	7.1%	10.9%	7.6%	5.6%	7.5%	17.2%	16.7%	7.6%	1.7%	1.1%	0.2%	0.0%	17.8%	12.0%
07	882	273	195	57	79	59	39	56	163	240	111	16	14	2	0	182	168
	71%	74%	71%	6.5%	9.0%	6.7%	4.4%	6.3%	18.5%	27.2%	12.6%	1.8%	1.6%	0.2%	0.0%	20.6%	19.0%
08	1,562	461	219	103	158	108	78	141	311	297	109	30	14	3	0	299	186
	63%	64%	48%	6.6%	10.1%	6.9%	5.0%	9.0%	19.9%	19.0%	7.0%	1.9%	0.9%	0.2%	0.0%	19.1%	11.9%

Pre-Defined Reports

Pre-Defined Reports

- User customized, point-in-time look at currently active clients
- Pre-defined reports look at a user defined subset of client population
- User Options:
 - the type of report
 - organizational level of analysis (role-approved)
 - output characteristics
 - BF Initiation, Duration and Exclusivity
 - filtering variables

Pre-defined Reports (continued)

- Information from infants and children records
- Reported durations include those currently breastfeeding and those that initiated breastfeeding but are no longer breastfeeding

What is the rate of breastfeeding initiation for currently active, Hispanic infants and children on Medicaid for the state?



Active Record
test, courtney (infant)
Cat: IBP (female)
ID: 300 204 574
DOB: 6/15/2008
Age: 2 yrs, 8 mos
Cert: 08/12/08 - 06/14/09
Status: Terminated

- Scheduling Tasks
- Guided Script
- Client Care
- Logoff

Medical Information

Was this child ever breastfed or fed breast milk?

Yes No Unknown

Is this child currently breastfed?*

Yes No

How old was this child when he/she was first fed breast milk? (i.e., formula, water, infant cereal, etc.)

Age:	Months	Weeks	Days
	<input type="text"/>	<input type="text"/>	<input type="text"/>

How old was this child when he/she completely stopped breastfeeding or being fed breast milk?

Age:	Months	Weeks	Days	Reason Breastfeeding Ended
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/> <input type="checkbox"/> Unknown

- Add Complaint
- Appeals and Fair Hearings
- Authorized Vendors
- Communications
- Compliance Investigations
- Formula Calculator
- Images
- NE Plan/ VOC
- Notes and Alerts
- Pre-defined Reports**
- RD Approval Queue
- Resolve CSFP Dual Enrollment
- Resolve Dual Enrollment
- Sanctions
- Scan
- Signature
- Special Population Issuance
- Survey
- Time Study Entry
- Transfers Out of State

BF Statistics

breast milk? Exclusively Breastfed

Food

Save Cancel Next

BF Intiation Rate of Hispanic I&C on Medicaid, Statewide

Date Generated: 03/25/2011

<i>Breastfeeding Initiation</i>	<i>Frequency</i>	<i>Percentage %</i>
Ever Breastfed - Yes	10,727	59.41
Ever Breastfed - No	7,047	39.03
Ever Breastfed - Unknown	281	1.56
Total	18,055	

BF Intiation Rate of Hispanic I&C on Medicaid, Statewide

Date Generated: 03/25/2011

Report Criteria

<u>Filter</u>	<u>Value</u>
Organization Level:	State
Ethnicity (Hispanic/Latino):	Yes
Client Adjunct Eligibility (Medicaid):	Yes

Questions on Pre-Defined Reports?

MPHI Events (<https://events.mphi.org>)

- Upcoming Events
- WIC Trainings
- Archived Webcasts

Session with Richard Schneider at the
Michigan WIC Conference

Tuesday, April 19, 2011

(Session 204)

Breastfeeding Ad-hoc Report

Breastfeeding Ad-hoc Report

- Point-in-time look at current breastfeeding duration statistics by state and local agency
- Currently active clients
- Count and rate for each breastfed duration interval
 - Infants and children
- Includes those currently breastfed and those that initiated breastfeeding but are no longer breastfeeding

Breastfeeding Ad-hoc Report (continued)

- Shows drop-off of clients at each breastfed time interval
- Highlights critical points of intervention for clients
- Best used for breastfeeding planning
- Will be available twice a year
- Available upon request for monitoring special projects

BREASTFEEDING DURATION REPORT--Point in Time

Generated 3/17/11

BF DURATION SUMMARY 03/17/11	LA #	No. of INFANTS INITIATED BF		TWO WEEKS		FOUR WEEKS		SIX WEEKS		TWO MONTHS		SIX MONTHS		ELEVEN MONTHS	
		#	#	#	Duration	#	Duration	#	Duration	#	Duration	#	Duration	#	Duration
STATE	0	34,198	26,801	78.37%	22,232	65.01%	19,454	56.89%	17,407	50.90%	7,175	20.98%	993	2.90%	
DISTRICT HD #3	1	230	181	78.70%	146	63.48%	120	56.00%	114	49.57%	48	20.87%	2	1.20%	
LMAS DHD	2	135	113	83.70%	98	72.59%	83	61.48%	75	55.56%	42	31.11%	7	5.19%	
DISTRICT HD #4	4	229	195	85.15%	163	71.18%	140	61.14%	127	55.46%	55	24.02%	11	4.80%	
NORTHWEST	5	487	391	80.29%	357	73.31%	319	65.50%	299	61.40%	132	27.10%	19	3.90%	
CENTRAL MICHIGAN	6	713	573	80.36%	496	69.57%	440	61.71%	391	54.84%	167	23.42%	25	3.51%	
WESTERN UP	7	273	224	82.05%	193	70.70%	173	63.37%	159	58.24%	70	25.64%	6	2.20%	
BARRY EATON	8	471	370	78.56%	313	66.45%	285	60.51%	259	54.99%	109	23.14%	19	4.03%	
BAY COUNTY	9	407	324	79.61%	272	66.83%	245	60.20%	224	55.04%	61	14.99%	4	0.98%	
GRAND TRAVERSE	10	425	375	88.24%	349	82.12%	324	76.24%	283	66.59%	130	30.59%	17	4.00%	
BERRIEN CO. HD	11	502	395	78.69%	319	63.55%	282	56.18%	243	48.41%	100	19.92%	15	2.99%	
BHS COMMUNITY HA	12	730	620	84.93%	532	72.88%	483	66.16%	434	59.45%	167	22.88%	16	2.19%	
CALHOUN CO. HD	13	596	421	70.64%	341	57.21%	289	48.49%	252	42.28%	90	15.10%	12	2.01%	
BENZIE-LEELANAU	14	94	81	86.17%	66	70.21%	55	58.51%	49	52.13%	22	23.40%	4	4.26%	
INTERCARE	15	2,157	1,753	81.27%	1,572	72.88%	1,410	65.37%	1,241	57.53%	521	24.15%	68	3.15%	
CHIPPEWA	17	175	149	85.14%	136	77.71%	125	71.43%	109	62.29%	48	27.43%	7	4.00%	
MID MICHIGAN DHD	19	638	512	80.25%	397	62.23%	348	54.55%	303	47.49%	119	18.65%	13	2.04%	
DELTA-MENOMINEE	21	195	151	77.44%	128	65.64%	110	56.41%	96	49.23%	34	17.44%	5	2.56%	
DICKINSON/IRON	22	131	118	90.08%	107	81.68%	96	73.28%	85	64.89%	38	29.01%	9	6.87%	
GENESEE COUNTY	25	1,331	993	74.61%	762	57.25%	636	47.78%	562	42.22%	237	17.81%	41	3.08%	
HEALTH DELIV-RES/3011	30	251	141	56.18%	119	47.41%	99	39.44%	89	35.46%	27	10.76%	3	1.20%	
HURON COUNTY	32	112	89	79.46%	73	65.18%	65	58.04%	60	53.57%	22	19.64%	1	0.89%	
INGHAM COUNTY	33	1,126	900	79.93%	695	61.72%	598	53.11%	542	48.13%	226	20.07%	29	2.58%	
KEWEENAW BAY	35	37	25	67.57%	20	54.05%	18	48.65%	17	45.95%	9	24.32%	2	5.41%	
IONIA COUNTY	37	243	181	74.49%	149	61.32%	129	53.09%	113	46.50%	40	16.46%	5	2.06%	
JACKSON COUNTY	38	712	533	74.86%	432	60.67%	364	51.12%	311	43.68%	113	15.87%	15	2.11%	
KALAMAZOO CO.	39	447	360	80.54%	317	70.92%	281	62.86%	258	57.72%	121	27.07%	14	3.13%	
FAMILY HEALTH CENTER	40	506	401	79.25%	356	70.36%	310	61.26%	272	53.75%	99	19.57%	16	3.16%	
KENT COUNTY	41	2,745	2,198	80.07%	1,842	67.10%	1,662	60.55%	1,505	54.83%	608	22.15%	92	3.35%	
DISTRICT HD 10	43	1,335	1,079	80.82%	873	65.39%	742	55.58%	655	49.06%	260	19.48%	37	2.77%	
LAPEER COUNTY	44	305	243	79.67%	194	63.61%	164	53.77%	141	46.23%	51	16.72%	4	1.31%	
TUSCOLA COUNTY	45	193	151	78.24%	123	63.73%	104	53.89%	78	40.41%	32	16.58%	6	3.11%	
COMMUNITY ACTION	46	367	281	76.57%	237	64.58%	204	55.59%	182	49.59%	86	23.43%	12	3.27%	
LIVINGSTON COUNTY	47	345	284	82.32%	224	64.93%	192	55.65%	175	50.72%	117	33.91%	18	5.22%	
MACOMB CO	50	1,347	1,040	77.21%	778	57.76%	655	48.63%	576	42.76%	230	17.07%	27	2.00%	
DOWN RIVER	51	549	432	78.69%	348	63.39%	289	52.64%	252	45.90%	84	15.30%	14	2.55%	
MARQUETTE COUNTY	52	201	182	90.55%	164	81.59%	139	69.15%	127	63.18%	52	25.87%	7	3.48%	
MID MI COM ACTION	56	305	250	81.97%	220	72.13%	193	63.28%	172	56.39%	80	26.23%	11	3.61%	
MONROE COUNTY	58	486	370	76.13%	298	61.32%	251	51.65%	219	45.06%	84	17.28%	10	2.06%	

BF DURATION SUMMARY 03/17/11	LA #	No. of INFANTS INITIATED BF	TWO WEEKS		FOUR WEEKS		SIX WEEKS		TWO MONTHS		SIX MONTHS		ELEVEN MONTHS	
			#	Duration	#	Duration	#	Duration	#	Duration	#	Duration	#	Duration
STATE	0	34,198	26,801	78.37%	22,232	65.01%	19,454	56.89%	17,407	50.90%	7,175	20.98%	993	2.90%

MI-WIC
and
Data Quality
Success

Active Record
test, courtney (infant)
Cat: IBP (female)
ID: 300 204 574
DOB: 6/15/2008
Age: 2 yrs, 8 mos
Cert: 08/12/08 - 06/14/09
Status: Terminated

- Scheduling Tasks
- Guided Script
- Client Care
- Logoff

Client Information		Additional Information	
Authorized Person Test, Courtney		Family ID 2600312	
Client ID 300 204 574	Last Name* Test	First Name* Courtney (Infant)	MI
Birth Date* 06/15/2008	Age 2 years, 8 months	Proof of Identity*: Birth Certificate	Proof of Pregnancy*: Not Applicable
Gender*: <input type="radio"/> Male <input checked="" type="radio"/> Female		Education Level*: Not Applicable	Marital Status*: Not Applicable
Medicaid Number:		Reason for Ineligibility:	
<input checked="" type="checkbox"/> Adjunct Eligibility <input checked="" type="checkbox"/> Income Eligibility		Physician	
Mother's ID: 300 204 573 <input type="checkbox"/> Foster Care		Name: <input type="text"/> Phone: () - <input type="text"/>	

Verify mother and child's category

Save Cancel →

Active Record

test, courtney (infant)

Cat: IBP (female)
ID: 300 204 574
DOB: 6/15/2008
Age: 2 yrs, 8 mos
Cert: 08/12/08 - 06/14/09
Status: Terminated

Scheduling Tasks

Guided Script

Client Care

Logoff

Medical Information

BF Statistics

Was this child ever breastfed or fed breast milk?*

Yes No Unknown

Update Me

Is this child currently breastfed?*

Yes No

Every time a client is seen

How old was this child when he/she was first fed something other than breast milk? Exclusively Breastfed
(i.e., formula, water, infant cereal, etc.)

Age: Months Weeks Days Unknown Type of Food

How old was this child when he/she completely stopped breastfeeding or being fed breast milk?

Age: Months Weeks Days Unknown Reason Breastfeeding Ended

Accuracy

Save Cancel Next

Summary

- Enter correct birth date
- When known, add mother's client ID to child's record
- Verify mother and child's client category
- Update BF information every time you see a child (accurately)
- Utilize BF Reports to monitor your program
 - BF Initiation and Duration Production Report
 - Pre-defined Report
 - Frequency Tables
 - BF Initiation, Exclusivity, Duration
 - BF Ad-hoc report when necessary (planning)
- Published Reports (available soon)

The Possibilities

- Michigan WIC Five-Year-Plan (2012)
 - Initiation to **65%**
 - 6 Months to **24%**

Healthy People 2020 Goals

- Increase BF:
 - Initiation to **81.9%**
 - 6 Months to **60.9%**
 - 12 Months to **34.1%**

March 2011

**Breastfeeding
Initiation: 57%**

**Breastfed to 6
months: 21%**

Data Quality Depends on YOU!

Thank You 

Hillary Turner
TurnerH@michigan.gov

Kobra Eghtedary
EghtedaryK@michigan.gov