

North Dakota Reminder Recall Pilot Project



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Background



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State Population Changes

- North Dakota's 2010 census was the second highest census count in the state's history and reflected a 5% increase from 2000
- Since the 2010 census count, North Dakota has seen a large influx of people in the western area of the state due to the oil boom in that area
- According to the April 2012 US Census news release, North Dakota had:
 - One of the top 50 fastest growing metro areas from 2010 – 2011
 - Bismarck, ND which is the state's capitol and 2nd largest city
 - Three of the nation's fastest growing micro areas between April 1, 2010 – July 1, 2011
 - Williston, ND was the #1 fastest growing micro area in the United States
 - Dickinson, ND was ranked #4
 - Minot, ND was ranked # 8 and was also one of the four micro areas with the highest numeric population gain between 2010 - 2011
 - One of the 10 fastest growing counties between 2000 - 2010
 - Williams County (where Williston is located) was ranked # 3



Population continued...

- Population estimates from the Centers for Disease Control and Prevention (CDC) indicate that approximately 34.6% of North Dakota kids 18 years and younger are eligible to receive vaccine through the Vaccines For Children (VFC) program
- Data in the North Dakota Immunization Information System (NDIIS) show 40% VFC eligibility
 - For the northwestern ND counties of Divide, McKenzie, Mountrail and Williams, that percentage is higher at 47%
- According to NDIIS data, 68.3% of kids 19 – 35 months of age are up-to-date with the 4:3:1:3:3:1:4 (4 DTaP, 3 polio, 1 MMR, 3 Hib, 3 hepatitis B, 1 varicella, 4 PCV)vaccine series
 - As of April 2012, only 61% of kids in Divide, McKenzie, Mountrail and Williams counties were up-to-date
- Providers in this area are not able to keep up with the influx of kids and adults coming in from all over the country



NDIIS Background

- The North Dakota Immunization Information System (NDIIS) is a confidential, population-based, computerized information system that attempts to collect vaccination data for all North Dakotans.
- Established in 1988 as a modem, dial-up system
- The NDDoH contracted with BCBSND in 1996 to develop the current web-based system.
 - NDIIS is located on their THOR (The Healthcare Online Resource) network.
- ND Century Code requires North Dakota providers enter all childhood (under 18 years of age) immunizations into the NDIIS.
- Beginning in January 2006, the NDIIS is populated by electronic birth certificate information from ND Vital Statistics
 - The average amount of time between a child's birth and the establishment of an IIS record is 3.24 weeks
 - 66% of immunization data for children younger than 6 years of age is entered into the NDIIS within one day of administration



NDIIS continued...

- In December 2010, the ND Department of Health Immunization Program implemented reminder/recall functionality into the NDIIS
- The reminder/recall system is an automated report that uses the immunization forecaster to determine if client's in the registry are coming do or are past due for immunizations
 - Forecasting is done according to the recommendations of the Advisory Committee for Immunization Practices (ACIP)
- Reminder function will pull clients in the NDIIS within the specified birth date/age range who are coming due for the selected vaccines
- Recall function will pull clients in the NDIIS within the specified birth date/age range who are past due for the selected vaccines
- Reminder/Recall can be done at a provider, county or district level and can be run by all users with read/write access to the NDIIS



Pilot Project



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Pilot Project

- **Goal:** to improve immunization rates in western North Dakota
 - Includes the counties of Divide, McKenzie, Mountrail and Williams that make up the Upper Missouri District
 - Area facing the most challenges related to the influx of people associated with the state's oil boom
- **Project Specifics:**
 - Use the NDIIS reminder/recall functionality to recall kids 19 – 35 months of age who are 30 or more days behind with one or more vaccines for the 4:3:1:3:3:1:4 vaccine series
 - Series = 4 DTaP (diphtheria, tetanus, pertussis), 3 polio, 1 MMR (measles, mumps, rubella), 3 hepatitis B, 3 Hib (*Haemophilus influenzae* type B), 1 varicella (chickenpox) and 4 PCV (pneumococcal conjugate vaccine)
 - Run the report by county for the Upper Missouri District
 - Use the Call Em All automated calling system to make recall phone calls once per month
 - Collect baseline data prior to first round of phone calls and monthly thereafter



Pilot Project continued...

➤ Call Em All

- NDDoH has a business use agreement and contract in place with Call Em All to conduct the automated recall phone calls
- Once per month, phone numbers collected from the NDIIS reminder/recall report are uploaded into the Call Em All system from an excel document
- Pre-recorded message is used to let parents/guardians of kids not up-to-date know that they are behind on vaccinations
 - **Message:** “This message is from the North Dakota Department of Health Immunization Program. According to our records your child is past due on one or more immunizations. Please contact your local public health unit or healthcare provider to schedule an appointment for your child to be vaccinated.”
- System does display a return phone number when making phone calls
 - When phone number is called, it replays automated message
- Once calls are completed, Call Em All sends a report with call completion statistics to the primary contact on file



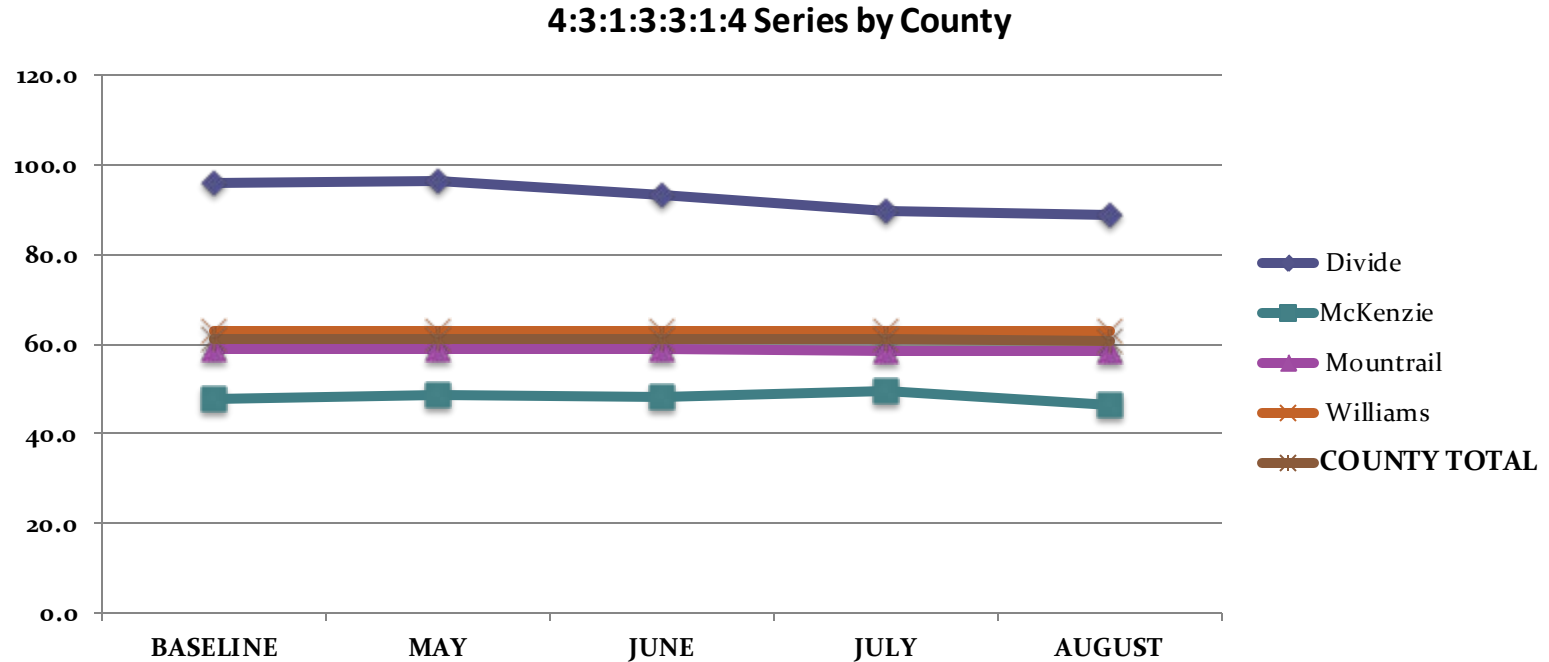
Pilot Project continued...

➤ Data collected:

1. Immunization rate by county and by provider (located within the four counties of the project) for the complete 4:3:1:3:3:1:4 vaccine series
2. Immunization rate by county and by provider for each individual vaccine within the 4:3:1:3:3:1:4 vaccine series
3. Completeness of phone number information for kids pulled on the reminder/recall report
4. Call Em All data on phone call completeness



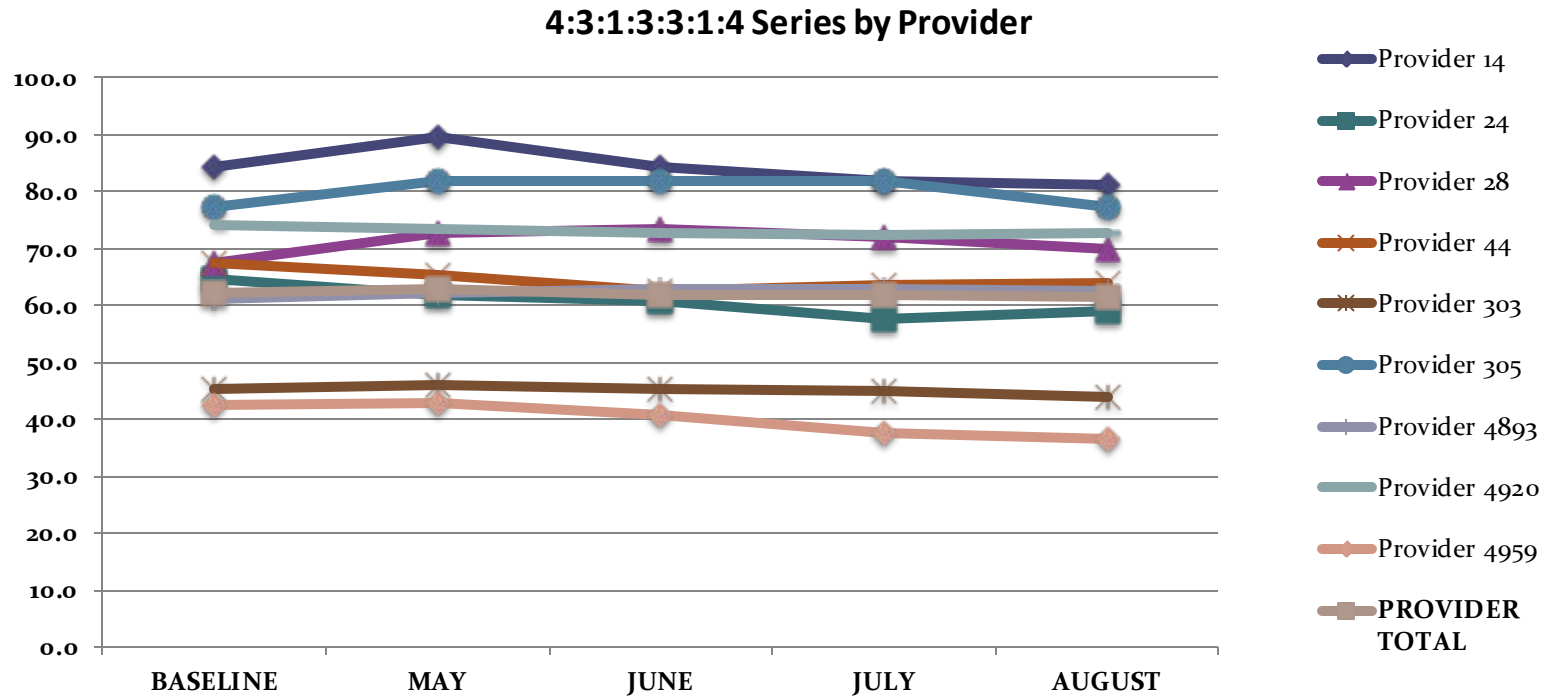
Project Data



- Seeing very little change over the past 5 months of the project
- County total is following almost the exact same pattern as Mountrail and Williams counties
- Starting to see a decline in Divide county



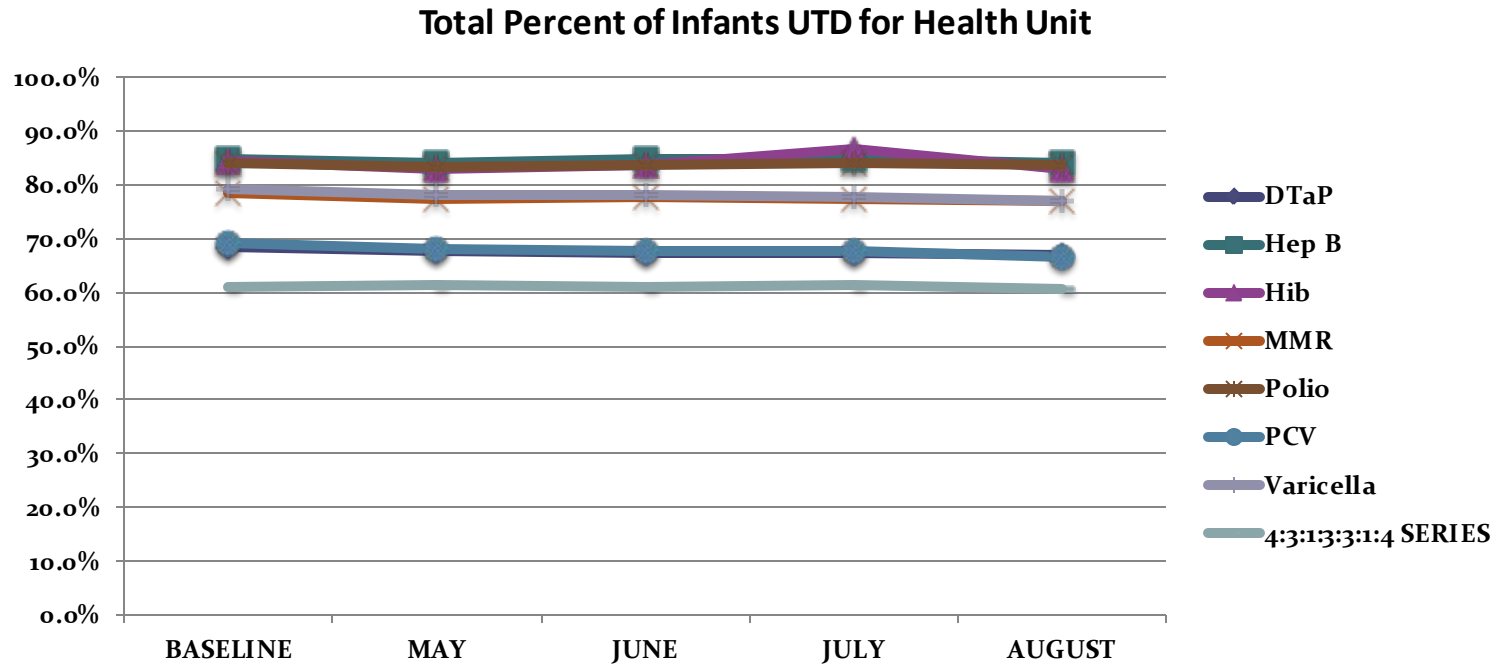
Project Data continued...



- Seeing very little change over the past 5 months of the project at the provider level as well
- Seeing same decline with Divide county providers as with Divide county
- Provider total is starting to see slight decline



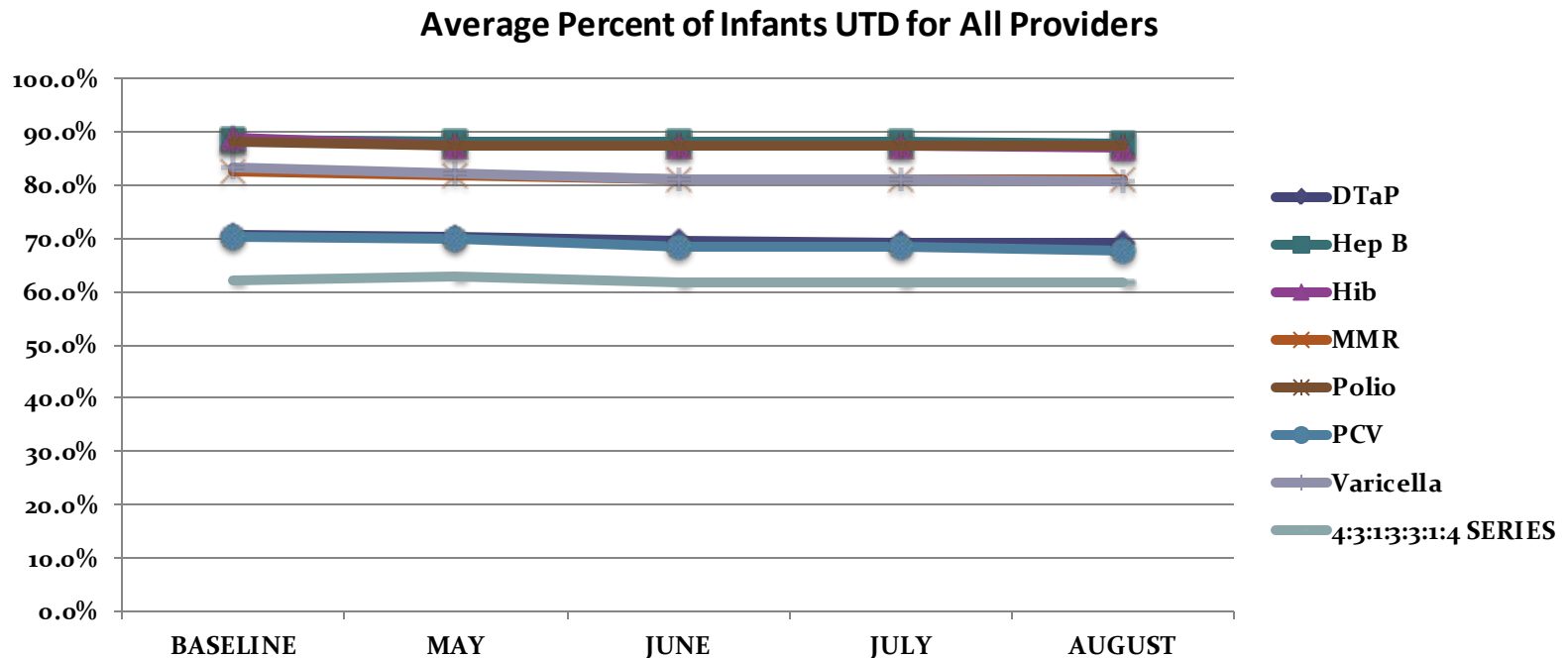
Project Data continued...



- See almost the same pattern with very little variation for each individual vaccine within the series
- Follows the same pattern as the series itself



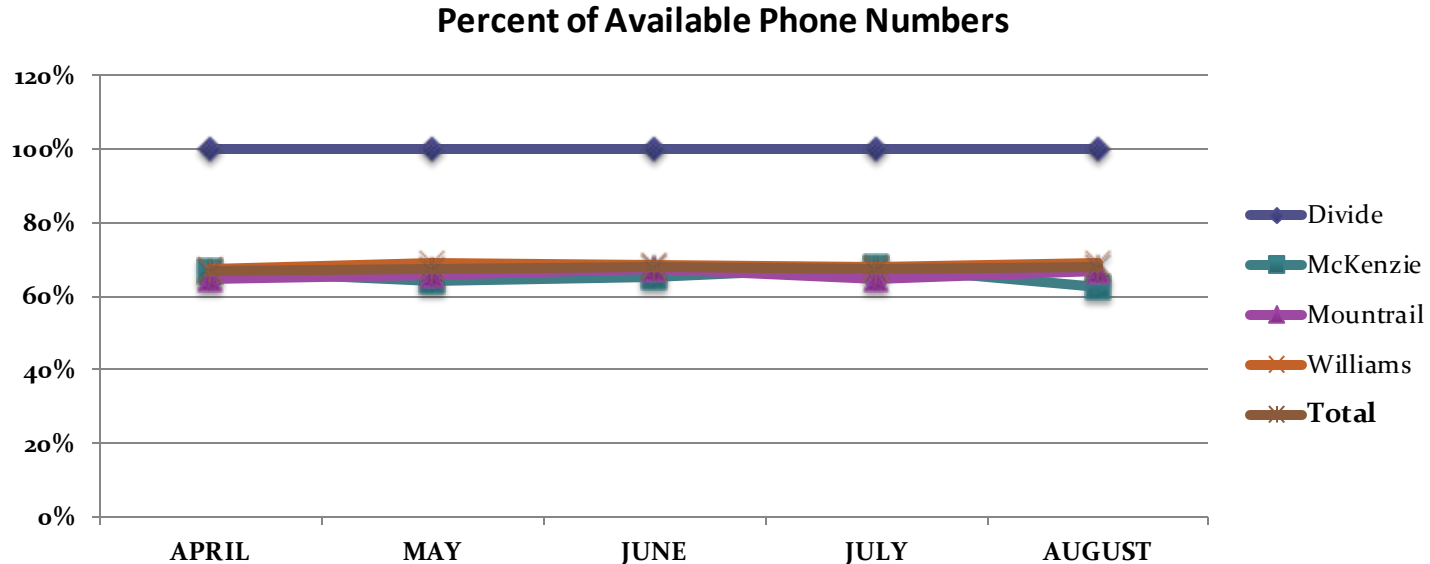
Project Data continued...



- See almost the same pattern with very little variation for each individual vaccine within the series with a small increase in May and July with a decrease the following month
- Follows the same pattern as the series itself



Project Data continued...

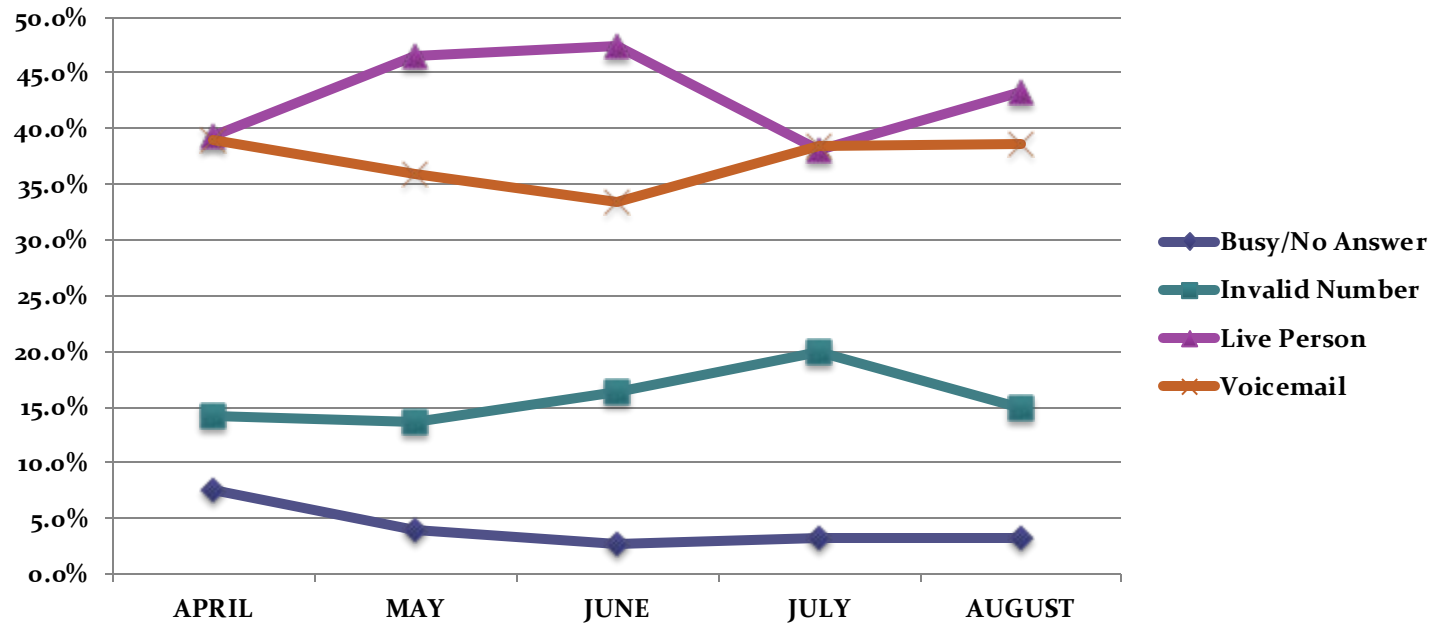


- Percent of available phone number information is staying fairly consistent for all counties
- See slightly more variation with McKenzie county than with the other three
- Phone number field was not required in the NDIIS until August 2011



Project Data continued...

Call Em All Call Details



Challenges & Overcoming Barriers



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Challenges

➤ **Provider availability & workload**

- Even if parents are calling to make appointments to get their children immunized the providers are not able to get them in for an appointment
- When immunizations are administered, provider workload is so large that they are behind on data entry
 - Kids may be up-to-date but immunizations are not in the NDIIS so they are still pulling on reminder/recall report
 - Updated demographic information, including phone numbers, is not being entered into the NDIIS because of the back log of data entry

➤ **Mobility of population**

- Kids may be born in western ND but then go back home shortly after but updated address information is not in the NDIIS and they still come up on reminder/recall for Upper Missouri District
- Some kids living in Western ND may not have been able to get local addresses so they are not showing up on reminder/recall when they should be
- Kids coming in from out of state may have received immunizations prior to moving to ND but do not have a copy of their record



Overcoming Barriers

➤ **Mass Vaccination Clinics**

- Immunization Program is working with the Emergency Preparedness department to organize mass vaccination clinics to get kids up-to-date with all immunizations they may be missing
- Clinics will be in September and October in Williston (Williams County) and Watford City (McKenzie County)

➤ **Streamlining Provider Process**

- Some providers are unnecessarily documenting immunizations in multiple places
 - By working with them to eliminate some of the excess documentation, their data entry workload should decrease

➤ **Out-of-State Registry Access**

- Immunization program is working with providers to get them access to the immunization registries for the states where the largest volume of kids are coming from so that they are able to look up immunization histories
 - If a complete history can be obtained then some of the kids may be removed from the reminder/recall as they are up-to-date



Questions?



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