THE PRESENTATION WILL BEGIN SHORTLY

There will be no audio until then.

NORTH DAKOTA DEPARTMENT of HEALTH

International Association of Immunization Managers Peer-to-Peer Exchange HPV Vaccination in Ireland

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NORTH DAKOTA DEPARTMENT of HEALTH

How many cancers are linked with HPV each year?

Cancer site	Average number of cancers per year in sites where HPV is often found			Percentage of cancers per year probably caused by HPV	Average number of cancers per year probably caused by HPV†		
	Male	Female	Both Sexes		Male	Female	Both Sexes
Anus	1,549	2,821	4,370	91%	1,400	2,600	4,000
Cervix	0	11,422	11,422	91%	0	10,400	10,400
Oropharynx	9,974	2,443	12,417	72%	7,200	1,800	9,000
Penis	1,048	0	1,048	63%	700	0	700
Vagina	0	735	735	75%	0	600	600
Vulva	0	3,168	3,168	69%	0	2,200	2,200
TOTAL	12,571	20,589	33,160		9,300	17,600	26,900

NORTH DAKOTA DEPARTMENT of HEALTH

HPV

- Every **20 minutes**, someone in the U.S. is diagnosed with an HPV-related cancer.
- About 79 million Americans are currently infected with HPV.
- About 14 million people become newly infected each year (mostly in teens and early 20s).
- HPV is so common that most sexually-active men and women will get at least one type of HPV at some point in their lives.

HPV Vaccine

- Two HPV vaccines are licensed by the Food and Drug Administration (FDA).
- The bivalent HPV vaccine (Cervarix®) prevents the two HPV types, 16 and 18, which cause 70% of cervical cancers.
- The quadrivalent HPV vaccine (Gardasil®) prevents four HPV types: HPV 16 and 18, as well as HPV 6 and 11, which cause 90% of genital warts.
  - Quadrivalent vaccine has also been shown to protect against cancers of the anus, vagina and vulva.
  - Only quadrivalent vaccine is licensed in use for males.

HPV Vaccine

- Both vaccines are administered as a 3-dose series.
  - 0, 1, and 6 months
- HPV vaccines are routinely recommended for 11 and 12 year old girls and boys.
  - HPV vaccine works best at this age, prior to exposure.
  - No evidence of waning immunity.
    - Currently it is known that immunity lasts in the body for at least 10 years without becoming less effective.
  - The vaccine series can be started beginning at age 9.

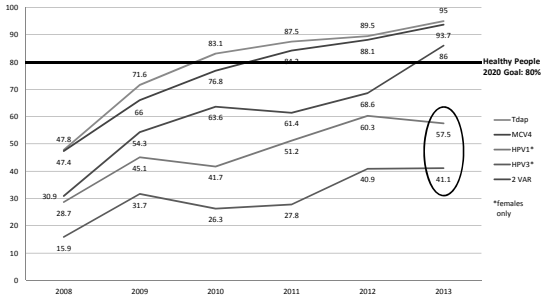
HPV Vaccine

- Vaccination is also recommended for 13 – 26 year-old females, and 13 – 21 year-old males who have not completed the vaccination series.
  - Males ages 22 – 26 may be vaccinated.
- HPV vaccine is also recommended for gay and bisexual men (or any man who has sex with men) and persons with compromised immune systems (including HIV) through age 26, if they did not get fully vaccinated when they were younger.

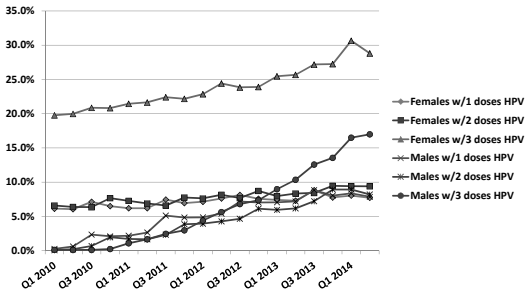
HPV Vaccine

- A nine-valent HPV vaccine is expected to be approved for use in the United States in late 2014.
  - Protects against five additional HPV types (31, 33, 45, 52, 58)
- The ACIP will most likely discuss recommendations for HPV9 vaccine at the February 2015 meeting.
  - CDC does not recommend that parents and healthcare providers delay HPV vaccination until the 9-valent HPV vaccine is available; delaying could result in adolescents being exposed to HPV prior to being fully vaccinated and putting them unnecessarily at risk of cancer.
  - The ACIP may also discuss a two-dose schedule for HPV vaccine.

North Dakota Adolescent (13-17) Immunization Rates (NIS)



North Dakota HPV Immunization Rates for 13 – 15 Year Olds (NDIIS)



North Dakota Adolescent (13-17) Immunization Rates (NIS)

- In 2013, there were an estimated **21,890 North Dakota teens** ages 13 - 17 who had not received any doses of HPV vaccination:
  - **8,497 (about 4 in 10) girls**
  - **13,393 (about 6 in 10) boys**
- In 2013, 98% of North Dakota girls who were unvaccinated against HPV had a missed opportunity for HPV vaccination.
  - 99% of North Dakota girls could have started the HPV vaccine series if missed opportunities were eliminated.

HPV Vaccine Impact

- Currently 26 million girls ages 12 and younger live in the U.S. If none of these girls are vaccinated, data from mathematical models suggest that:
  - 168,400 will develop cervical cancer and 54,100 will die from cervical cancer.
  - Vaccinating 30% of these girls would prevent 45,500 of these cases and 14,600 deaths;
  - However, increasing the vaccination rate to 80% would prevent 98,800 cases and 31,700 deaths.
  - For each year we stay at 30% coverage instead of achieving 80%, 4,400 future cervical cancer cases and 1400 cervical cancer deaths will occur.
  - Not vaccinating means leaving more girls and boys exposed to potential HPV cancers in the future.
- Already, a significant 56% reduction in prevalence of HPV vaccine types was seen among females aged 14-19 years, from 11.5% in the 4 years before vaccine introduction to 5.1% in the 4 years after introduction.
  - Less infection with HPV decreases the risk of cancers caused by HPV.

International Association of Immunization Managers (IAIM)

- Peer-to-Peer Exchange Program
  - Open to any immunization manager
  - Competitive application process
  - Two application and selection cycles per year
  - Focused on a theme chosen by the immunization manager applying
  - IAIM pays for flight, lodging, and per diem
- www.iaimanagers.org/

Molly's Peer-to-Peer Exchange Objectives - Ireland

- Be able to describe strategies used to implement and achieve high rates of HPV vaccination amongst adolescents, including, school located clinics, communication initiatives, educational materials, insurance coverage, healthcare provider education, etc.
- Understand mandatory (or lack there of) school immunization requirements.
- Determine the process used by another country to assess immunization coverage, including the use of immunization information systems.
- Understand barriers to immunization and strategies used to combat barriers in another country.
- Be able to summarize the healthcare structure of the country and possible differences that may impact immunization coverage rates.
- Determine opportunities for implementation of learned strategies in North Dakota.

Molly's Peer-to-Peer Exchange Agenda - Ireland

Monday 8th September			
Time	Meeting with		**Venue**
09.30 – 17.00	Dr Brenda Corcoran Dr Anna Clarke Ms Mary Dowling Ms Yvonne Morrissey Ms Lesley Smith	Consultant in Public Health Medicine Consultant in Public Health Medicine Business Manager Information Officer General Manager	**National Immunisation Office (NIO) Health Service Executive (HSE) Units 8-9 Manor Street Business Park Shea's Lane, off Manor Street, Dublin 7**
Tuesday 9th September			
09.30 – 13.30	Dr Sieneke Haakvoort and vaccination team	Senior Medical Officer	**School in Dublin North**
14.30 – 15.00	Dr Kevin Kelleher	Assistant National Director, Health & Wellbeing, Public Health & Child Health	**NIO**
15.30 – 16.30	Ms Mary Murphy	Assistant Administrator	**HSE DNC Area - North West Dublin, Ground Floor, Unit 4&5, Nexus Building, Block 6A, Blanchardstown Corporate Park, Dublin 15**
Wednesday 10th September			
09.30 – 14.30	Dr Paul Stewart and vaccination team	Senior Medical Officer	**School in Leixlip, County Kildare**
15.30 – 16.30	Ms Fidelma Browne	Head of Public Communications	**HSE, Dr Steeven's Hospital, Dublin 8**
Thursday 11th September			
09.30 – 13.00	Dr Karen Lavery and vaccination team	Senior Medical Officer	**School in Dublin South East**
14.00 – 15.00	Dr Suzanne Cotter Ms Sarah Gee	Consultant in Public Health Medicine Surveillance Scientist	**Health Protection Surveillance Centre Middle Gardiner Street , Dublin 1**
15.30 – 16.00	**Dr Stephanie O'Keefe**	**National Director, Health & Wellbeing**	**Dr Steeven's Hospital, Dublin 8**

Ireland

- Population: 4.595 million
  - Mixture of cities and very rural areas
  - 84.2% Catholic
- Universal healthcare system
- General Practitioners vaccinate infants
- Local health offices vaccinate at primary and secondary school entry
- No school immunization requirements

HPV Vaccination Recommendations - Ireland

- In 2008, the National Immunization Advisory Committee (NIAC) (similar to ACIP) recommended HPV vaccine for all girls at age 12.
  - Recommended catch-up vaccination at ages 13 – 15
  - Three-dose schedule
- Government did not fund HPV vaccine until January of 2010.
  - Deferred due to economic situation
  - Ireland supplies 100% of recommended vaccines (very limited private purchase).

HPV Vaccination Implementation - Ireland

- National Immunization Office (NIO) received 4 million € to implement program, including vaccines, staffing ,IT, educational materials, etc.
  - Vaccine contract awarded – Gardasil®
    - Based on cost and added benefits (genital wart prevention)
  - All funding went to purchase vaccine; none went to infrastructure.
- Decided to deliver HPV vaccines in schools after reviewing data from other countries showing higher uptake in school settings.
  - No additional funding given to school teams.

HPV Vaccination Implementation - Ireland

- NIO developed consent forms and educational materials for local health offices and parents.
- NIO developed standing orders for HPV vaccination.
- Ireland does not have a national immunization registry.
  - First year of program, manual records sent to NIO

HPV Vaccination Implementation - Ireland

- Schools submit enrollment (census) to NIO.
- Consent forms distributed through schools to parents.
  - Parents consent for all doses at one time at the beginning of the school year – September.
  - Consent requested one week prior to clinic.
  - School clinics start right away in September.
- Doctors and nurses administer vaccines at school clinics.
- Local health offices send letters to parents of children who missed school clinics to attend "mop-up clinics" in the community.

HPV Vaccination Implementation - Ireland

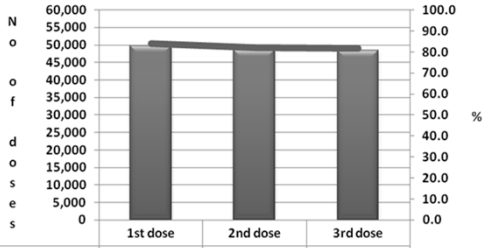
- May 2010: 21 schools piloted
- September 2010: full rollout of program
- Original cohort: 59,325 girls

HPV vaccine

protect now for the future

Message on Ireland NIO Materials

HPV Vaccine Program – Ireland 2010/2011 (*Graph from Ireland NIO*)



	1st dose	2nd dose	3rd dose
Number of doses	49,779	48,627	48,429
%	84.0	82.1	81.8

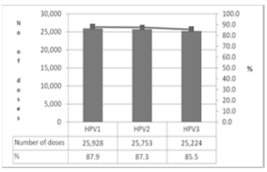
Over 80% (81.8%) uptake achieved for 3 dose schedule
>95% girls who started dose 1 completed dose 3

HPV Vaccine Program – Ireland 2011/2012 and 2012/2013

- Vaccinated all girls entering secondary school ("7th grade").
- Catch-up program for all girls in last year of secondary school ("seniors").
  - Minors can consent for themselves at age 16.
- Started using online H1N1 influenza vaccine system for HPV vaccination program.
  - Tracks consent, demographics, vaccine information, etc.

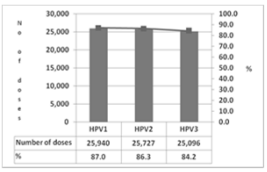
HPV Vaccine Program – Ireland Secondary School Entry (*Graphs from Ireland NIO*)

2011/2012



	HPV1	HPV2	HPV3
Number of doses	25,928	25,753	25,224
%	87.9	87.3	85.5

2012/2013

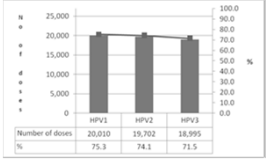


	HPV1	HPV2	HPV3
Number of doses	25,940	25,727	25,096
%	87.0	86.3	84.2

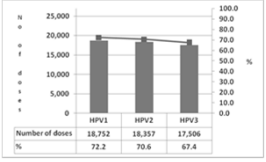
- Over 80% uptake achieved for 3 dose schedule
- >96% girls who started dose 1 completed dose 3

HPV Vaccine Program – Ireland Sixth Year Students (*Graphs from Ireland NIO*)

2011/2012



2012/2013



- Over 60% uptake achieved for 3 dose schedule
- Over 93% girls who started dose 1 completed dose 3
- *Some girls may have already received HPV vaccine.*

HPV Vaccine Program - Ireland

- 2014 – 2015 school year: changed to a two-dose HPV vaccine schedule.
  - 0 and 6 months
  - First dose administered with Tdap.
  - Second dose administered with Meningococcal C vaccine.
  - Tdap and MenC administered to boys.

Molly's Lessons Learned from Ireland

- Delay in funding for HPV vaccine caused increased demand for the vaccine.
  - Parents and women demanded that the government fund HPV vaccine after the recommendation.
  - Created positive media attention for HPV vaccine.
- United Kingdom TV reality star, Jade Goody, died of cervical cancer at age 27 in March of 2009.
  - Created positive media attention for HPV vaccine.
- Catholic Church mostly silent on HPV vaccine.

Molly's Lessons Learned from Ireland

- School-located clinics are an effective way to vaccinate
  - Convenience.
  - Parents familiar with school clinics because primary school entry vaccines given there.
  - Persistent school teams that send letters to parents of children who missed school clinics.
  - NIO has a close relationship with the Department of Education.
  - One-time consent in Ireland makes school clinics easier.
- The government funds 100% of the vaccine cost and administration; no billing of insurance.
  - If girls do not get the vaccine at school or "mop-up clinic," then the family may have to pay out-of-pocket later.
- The public trusts health information from the Ireland HSE.

Molly's Lessons Learned from Ireland

- **People know HPV vaccine as the "cancer vaccine."**

Possible Applications for North Dakota

- Pilot school clinics with local public health units or mass vaccinators in North Dakota.
- Conduct a media/educational campaign with focus on preventing cancer.
  - Focus on the need for vaccination prior to exposure.
  - Educate physicians/nurses about how to communicate with parents about the vaccine.
- Use trusted sources for HPV promotion/information.
  - Local physicians
  - North Dakota residents impacted by HPV

Thank You!

- International Association of Immunization Managers
- Dr. Brenda Corcoran, National Immunization Office in Ireland
- Other HSE staff that met with me and provided information

HPV Vaccine Communication Techniques

- How are you or others at your clinic presenting HPV vaccine?
  - Check out Minnesota Department of Health HPV Vaccine Communication Vignettes at www.health.state.mn.us/divs/idepc/immunize/hcp/adol/hpvvideos.html.
    - Short videos that show you how to handle different situations with parents and patients.
  - For one month, try recommending HPV the same way you recommend Tdap, MCV4, or varicella – using a declarative statement.

HPV Vaccine Communication Techniques

"Today your child will need to be vaccinated. It looks like he/she will need Tdap (tetanus, diphtheria, and acelluar pertussis), HPV, meningitis, and chickenpox vaccines."

HPV Vaccine Communication Techniques

- *PEDIATRICS* - Jonathan Temte, Chair of ACIP and Wisconsin Family Physician:

"…I have found a simple analogy of great utility in my practice. Most parents are familiar with, and endorse the use of bicycle helmets. When discussing HPV vaccine with 11 and 12 year-olds and their parents, I will ask the simple question:

When do you want your children to put on their bike helmets?

A. Before they get on their bike
B. When they are riding their bike in the street
C. When they see the car heading directly at them
D. After the car hits them

I usually end up with a smile and a successfully launched series."

Ways to Increase HPV Vaccination Rates

- Quality Improvement – select HPV vaccination rates as a quality improvement initiative at your facility.
- Start with small goals – increase HPV rates by 10% over the next year.
  - Reward yourself and your staff after small successes.
- Know your HPV vaccination rates - many providers overestimate rates.
  - NDIIS Quarterly rate reports.
- Identify an "Immunization Champion" at your facility.
- Connect oncology and obstetrics/gynecology physicians with pediatricians and family practice physicians within your health system/clinic.

Ways to Increase HPV Vaccination Rates

- Give all vaccines at high school activity physicals.
- Use an immunization forecaster, either in NDIIS or your electronic medical record.
- Conduct reminder/recall to increase HPV vaccination series completion rates.
- School immunization clinics.

HPV Cooperative Agreement

- North Dakota was recently awarded an HPV cooperative agreement to do the following:
  - Start an HPV Vaccination Task Force
  - Conduct an HPV Media Campaign
  - Hire an HPV Coordinator
  - Send postcards about HPV vaccine to parents of adolescents ages 11 – 12
  - Increase the number of adolescent AFIX visits in North Dakota

HPV Vaccine Resources

- New NDDoH HPV Website: http://www.ndhealth.gov/Immunize/HPV/.
- HPV Vaccination Tip Sheet: http://www.cdc.gov/vaccines/who/teens/for-hcp-tipsheet-hpv.pdf.
- Minnesota Department of Health communication vignettes: http://www.health.state.mn.us/divs/idepc/immunize/hcp/adol/hpvvideos.html.
- Tell us what you need to help you increase HPV vaccination rates!

Meningococcal B Vaccine Update

- On October 29, 2014, the FDA approved the first **serogroup B meningococcal vaccine** available for use in the United States.
- Trumenba® (Pfizer) is to be administered as a three dose series at 0, 2, and 6 months in individuals ages 10 – 25.
- The ACIP is expected to vote on recommendations for the use of meningococcal B vaccine at their February 2015 meeting.
- Bexsero® (Novartis) is expected to be approved by the FDA in early 2015.

Type your question in the chat window to the right

After the presentation, questions may be sent to:

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Immunization Program : 701.328.3386 or toll-free 800.472.2180

Post -Test

- Post-test
- Nurses interested in continuing education credit, visit http://www.ndhealth.gov/disease/post/default.aspx?PostID=64
  - Successfully complete the four-question posttest to receive your certificate
- Credit for this session available until Tuesday, October 14, 2014
- This presentation will be posted to our website at www.ndhealth.gov/immunize.