



QUARTERLY REPORT

2nd Quarter
June 2013
3rd Quarter
September 2013

Marion County Health Department
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To report a communicable disease
(24 hours a day, 7 days a week)

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This report contains data from both second quarter 2013 and third quarter 2013*

Vital Statistics Quarter Ending: June 2013	2nd Quarter		Year to Date	
	2013	2012	2013	2012
<u>BIRTHS</u>	1223	1289	2366	2469
Delivery in Hospital	1205	1274	2328	2425
Teen Deliveries (10-17)	25	29	55	66
<u>DEATHS</u>	644	668	1341	1319
TOTAL				
Medical Investigation	62	68	137	133
Homicide	1	5	3	7
Suicide	6	12	15	26
Accident – MVA	3	5	5	11
Accident – Other	25	20	58	42
Natural / Undetermined / Pending	27	26	58	47
Non-Medical Investigation (all natural)	581	600	1203	1186
Infant Deaths	5	5	7	11
Fetal Deaths	6	5	9	7
<u>COMMUNICABLE DISEASES</u>	4	5	4	5
E-Coli: 0157				
Hepatitis A	0	0	2	0
Acute Hepatitis B	0	0	0	2
Chronic Hepatitis B	6	3	14	13
Meningococcus	1	0	1	0
Pertussis	23	10	44	17
Tuberculosis	4	1	7	1
<u>SEXUALLY TRANSMITTED DISEASE</u>	11	0	17	2
PID (Pelvic inflammatory Disease)				
Chlamydia	296	350	677	718
Gonorrhea	17	21	29	45
Syphilis	8	0	14	2
AIDS	6	1	8	1
HIV Positive	3	1	4	3

Vital Statistics Quarter Ending: Sept. 2013	3rd Quarter		Year to Date	
	2013	2012	2013	2012
<u>BIRTHS</u>	1279	1332	3645	3801
Delivery in Hospital	1262	1316	3590	3741
Teen Deliveries (10-17)	21	51	76	117
<u>DEATHS</u>	614	600	1956	1919
TOTAL				
Medical Investigation	70	61	207	194
Homicide	3	2	6	9
Suicide	11	16	26	42
Accident – MVA	9	4	14	15
Accident – Other	29	19	87	61
Natural / Undetermined / Pending	18	20	74	67
Non-Medical Investigation (all natural)	544	539	1748	1725
Infant Deaths	7	6	14	17
Fetal Deaths	5	6	14	11
<u>COMMUNICABLE DISEASES</u>	14	7	18	8
E-Coli: 0157				
Hepatitis A	0	0	2	0
Acute Hepatitis B	2	0	2	2
Chronic Hepatitis B	10	6	24	17
Meningococcus	1	0	2	0
Pertussis	13	29	57	46
Tuberculosis	4	2	11	3
<u>SEXUALLY TRANSMITTED DISEASE</u>	14	2	31	2
PID (Pelvic inflammatory Disease)				
Chlamydia	312	332	989	1050
Gonorrhea	25	30	54	75
Syphilis	5	7	19	9
AIDS	4	1	12	2
HIV Positive	3	4	7	7

*This report contains preliminary data that is subject to change.

What's New With Flu?

Karen Landers MD MPH, Marion County Health Officer

The 2013-2014 influenza season is approaching, and there's plenty that's new with regard to influenza vaccination. As of September 20, 2013 according to the Centers for Disease Control and Prevention (CDC) over 50% (73 million) of the influenza vaccine doses anticipated to be produced for the season have been distributed. Here's a summary of what to expect this upcoming flu season.

Quadrivalent Vaccine

For the first time, four of seven influenza vaccine manufacturers are producing a vaccine containing 4 strains of influenza virus instead of the three strains contained in previous years' vaccines. This year's quadrivalent vaccine will contain 2 A strains (H3N2, H1N1) and 2 B strains. Influenza B viruses, derived from 2 main lineages (Yamagata, Victoria), have diverged to the point that protection against one strain provides no cross-protection against the other. The strains frequently circulate simultaneously during the flu season leaving patients vulnerable to the strain that was not included in the seasonal vaccine. All live attenuated influenza virus (LAIV) vaccine produced this season will contain four influenza virus strains. Of the 135-139 million doses of inactivated influenza vaccine (IIV) expected to be produced for this season approximately 23% will be quadrivalent. Within approved indications and recommendations, no preference has been indicated by the CDC for any type or brand of licensed vaccine over another.

It's No yolk - An Egg-Free Flu Vaccine

This flu season an influenza vaccination option will be available for the severely egg-allergic. Flublok® utilizes recombinant DNA technology to produce purified hemagglutinin (HA) proteins expressed by a baculovirus vector in a continuous cell line derived from the fall armyworm. It contains no egg proteins, no antibiotics, no preservatives, and its vial cap is latex free. It is approved for use in adults 18 through 49 years of age. Flublok® has a shorter shelf life, expiring 16 weeks from production date, as compared to other currently available influenza vaccines which carry an expiration date of June 30, 2014. **(Providers should check expiration dates before administration)** This advance in influenza vaccine manufacturing technology offers the potential for faster start-up in the event of a pandemic as it does not rely on egg supply or availability of influenza virus. A study of the vaccine compared to placebo in 2300 people showed that Flublok® was 44.6% effective against all circulating flu strains (not just strains contained in the vaccine) and 75.4% effective against vaccine-matched strains.

NOTE: Although the manufacturing process of cell-based influenza vaccine does not use eggs, this vaccine cannot be considered to be egg-free. Before beginning production, seed viruses are created using reference virus strains supplied by the World Health Organization (WHO) which have been passed through eggs. (Total egg protein estimated to be less than 50 femtograms (5×10^{-14} grams per 0.5 mL dose of Flucelvax®))

New Nomenclature

Due to variations in influenza vaccine manufacturing processes and the availability of quadrivalent vaccine for the 2013-2014 flu season, some of the initials used for identifying influenza vaccine have changed. The abbreviation TIV (Trivalent Inactivated Vaccine) has been replaced with the new abbreviation IIV (Inactivated Influenza Vaccine). RIV (Recombinant Influenza Vaccine) refers to recombinant hemagglutinin influenza vaccine. Where necessary to refer specifically to cell culture-based vaccine, the prefix "cc" is used; a numeric suffix specifies the number of antigens in the vaccine. Here is a summary of new influenza vaccine abbreviations for the 2013-2014 season:

- **IIV₃** – inactivated trivalent influenza vaccine
- **IIV₄** – inactivated quadrivalent influenza vaccine
- **ccIIV₃** – inactivated cell-based trivalent influenza vaccine
- **RIV₃** – recombinant trivalent influenza vaccine
- **LAIV₄** – Live attenuated quadrivalent vaccine (Note: **all** LAIV this year is quadrivalent)

H7N9 – Not Here (so far)

Human infections with a novel avian flu virus (H7N9) were first reported in China in February of 2013. As of August 12th according to WHO, a total of 135 cases have been reported with 44 deaths; most had contact with poultry. According to a CDC study published in *Nature* in July of this year, the H7N9 virus appears to be more capable of causing infection in mammals than other avian flu viruses, but would need to undergo further adaptation to spread easily via respiratory droplets. No sustained person-to-person transmission has been detected to date, and no cases have been reported outside of China. Case reports of human H7N9 infections declined sharply after April, possibly in response to public health containment measures (closure of live bird markets) or a change in the seasons. This virus may re-emerge with cooler weather in China, and is being monitored closely by CDC due to its pandemic potential. The National Institutes of Health (NIH) announced in September that researchers at nine sites in the U.S. have begun human testing of an investigational H7N9 influenza vaccine. Two concurrent Phase II trials are designed to gather information on vaccine safety, and immunogenicity when administered at different dosages and with or without adjuvants. For more information on infection control, testing, and treatment, of suspected H7N9 human infections, visit: <http://www.cdc.gov/flu/avianflu/h7n9-healthprofessionals.htm>.

Reportable Flu

During the 2013-2014 flu season, influenza will be reportable under the following conditions:

- Suspected novel influenza (reportable immediately day or night)
- Lab-confirmed influenza death in a person <18 years (reportable within 1 working day).

Report to Marion County Health Department (503) 588-5621. (Available 24/7)