

## **Anencephaly Investigation**

#### Central Washington, 2010-2015

#### Advisory Committee Meeting January 15, 2015

Cathy Wasserman, PhD, State Epidemiologist for Non-Infectious Conditions





## **Surveillance Update**



#### Neural Tube Defects by Year of Delivery or Estimated Year of Delivery<sup>1</sup>

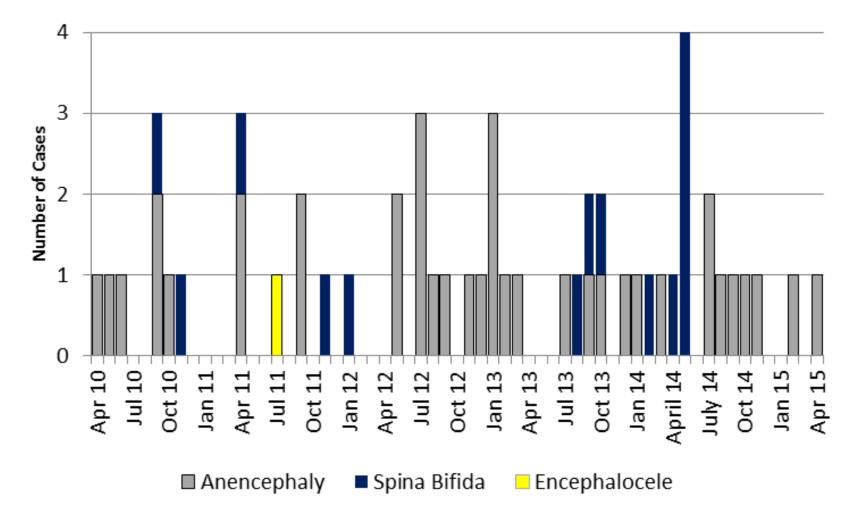
	Number	Total births	Rate per 10,000 births	95% CI		
All Neural Tube Defects	All Neural Tube Defects					
2010	8	8565	9.3	(4.0, 18.4)		
2011	7	8528	8.2	(3.3, 16.9)		
2012	10	8352	12.0	(5.7, 22.0)		
2013	12	8084	14.8	(7.7, 25.9)		
2014	14	na				
2015	2	na				
Total to date <sup>2</sup>	53	na				
Anencephaly						
2010	6	8565	7.0	(2.6, 15.2)		
2011	4	8528	4.7	(1.3, 12.0)		
2012	9	8352	10.8	(4.9, 20.5)		
2013	9	8084	11.1	(5.1, 21.1)		
2014	8	na				
2015	2	na				
Total to date <sup>2</sup>	38	na				

<sup>1</sup>Estimated year of delivery is used for cases terminated or delivered before 37 weeks gestation.

<sup>2</sup>Total to date reflects cases confirmed by January 9, 2015 with a delivery or estimated date of delivery in 2010-2015.



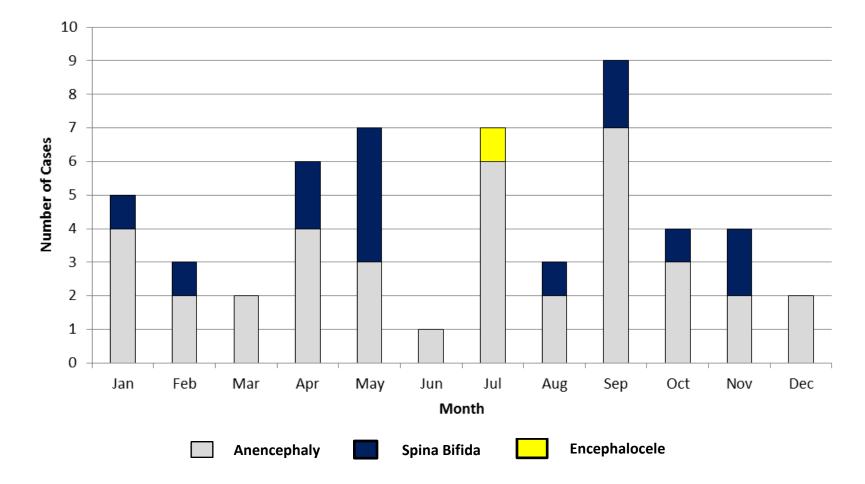
#### **Neural Tube Defects by Month of Estimated Delivery Date<sup>1</sup>**



<sup>1</sup>Estimated delivery date uses delivery date for gestational age  $\geq$  37 weeks and estimated delivery date for gestational age <37 weeks at delivery. Cases were confirmed through January 9, 2015.



#### Neural Tube Defects by Month of Estimated Delivery Date 2010-2015 Combined<sup>1</sup>



<sup>1</sup>Estimated delivery date uses delivery date for gestational age  $\geq$  37 weeks and estimated delivery date for gestational age <37 weeks at delivery. Cases were confirmed through January 9, 2015.



#### **Neural Tube Defects by County of Residence<sup>1</sup>**

	Total	Number	2010-2013	Rate per			
	Number <sup>1</sup>	2010-2013	births	10,000 births	95% CI		
All Neural Tube Defects							
Benton County	20	14	10,171	13.8	(7.5, 23.1)		
Franklin County	9	7	6,698	10.5	(4.2, 21.5)		
Yakima County	24	16	16,660	9.6	(5.5, 15.6)		
3 County Area	53	37	33,529	11.0	(7.5, 15.2)		
Anencephaly							
Benton County	15	13	10,171	12.8	(6.8, 21.9)		
Franklin County	6	4	6,698	6.0	(1.6, 15.3)		
Yakima County	17	11	16,660	6.6	(3.3, 11.8)		
3 County Area	38	28	33,529	8.4	(5.5, 12.1)		

<sup>1</sup>Total number reflects cases confirmed by January 9, 2015 with a delivery or estimated date of delivery in 2010-2015.



#### **Neural Tube Defects by Race Ethnicity**

	Total	Number	2010-2013	Rate per			
	Number <sup>1</sup>	2010-2013	births	10,000 births	95% CI		
All Neural Tube Defects							
Hispanic	24	18	17,435	10.3	(6.1, 16.3)		
Non-Hispanic White	22	16	13,559	11.8	(6.7, 19.2)		
Other	1	0	2,535	0.0			
Anencephaly							
Hispanic	19	15	17,435	8.6	(4.8, 14.2)		
Non-Hispanic White	13	10	13,559	7.4	(3.5, 13.6)		
Other	0	0	2,535	0.0			

<sup>1</sup>Total number reflects cases confirmed by January 9, 2015 with a delivery or estimated date of delivery in 2010-2015. Six anencephaly cases had unknown race/ethnicity.



#### Washington Rates of Anencephaly and Spina Bifida<sup>1</sup>

	Anencephaly	Rate per 10,000	All Neural Tube Defects	Rate per 10,000	Births
2005	18	2.2	39	4.7	82,625
2006	13	1.5	45	5.2	86,845
2007	21	2.4	55	6.2	88,921
2008	24	2.7	59	6.5	90,270
2009	25	2.8	55	6.2	89,242
2010	27	3.1	53	6.1	86,480
2011	35	4.0	64	7.4	86,929
2012	23	2.6	49	5.6	87,417
2013 <sup>2</sup>	22	2.5	42	4.9	86,566
2005-2013	208	2.6	461	5.9	785,295

<sup>1</sup>Based on ascertainment from birth certificates, fetal death certificates and hospital discharge data, 2005-2012. <sup>2</sup>Based on ascertainment from birth certificates and fetal death certificates only, 2013.



#### Washington Rates of Anencephaly and Spina Bifida<sup>1</sup>

	Number	2005-2012	Rate per				
	2005-2012	births	10,000 births	95% CI			
All Neural Tube Defects							
3 County Area	59	67,287	8.8	(6.7, 11.3)			
Rest of Washington	360	631,442	5.7	(5.1, 6.3)			
Total Washington	419	698,729	6.0	(5.4, 6.6)			
Anencephaly							
3 County Area	36	67,287	5.4	(3.7, 7.4)			
Rest of Washington	150	631,442	2.4	(2.0, 2.8)			
Total Washington	186	698,729	2.7	(2.3, 3.1)			

<sup>1</sup>Based on ascertainment from birth certificates, fetal death certificates and hospital discharge data, 2005-2012.



## **Investigation Update**



## **Investigation Update**

- We have sent letters out to primary care providers of women who had neural tube defect affected pregnancies.
- We've heard back from several providers and have followed up by phone with the rest.
- Many women have agreed to participate already and we sent letters to 10 mothers earlier this week. We plan to follow up by phone with them next week and will begin conducting interviews as soon as we can schedule the call at a convenient time for the mother.



## **Investigation Update**

 We're still working on obtaining comparison data collected as part of the National Birth Defects Prevention Study.



## **Prevention Update**



## **Prevention Update**

- Provider Outreach continues
- January is Birth Defects Prevention Month.
- As part of Birth Defects Prevention Month, CDC is hosting a Public Health Grand Rounds webinar next Tuesday at 10 am PST. The title is "Understanding the Causes of Major Birth Defects."
- Radio program Hispanic Health Commission/WA Dept of Health
- Exploring development of materials for providers to encourage folic acid use by all women of reproductive age



# To provide comments or questions, please contact:

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