

Vitamin K Refusal at Birth in Alberta

For the years 2006 - 2012

Supplemental Vitamin K is an effective intervention for preventing Vitamin K deficiency bleeding, a rare bleeding disorder in early infancy that can result in neurological damage and death. In Canada, Vitamin K is routinely given to all newborns - typically administered through a single injection at birth, but parents can opt for a multi-dose oral form administered at birth and over the first few weeks of life.¹

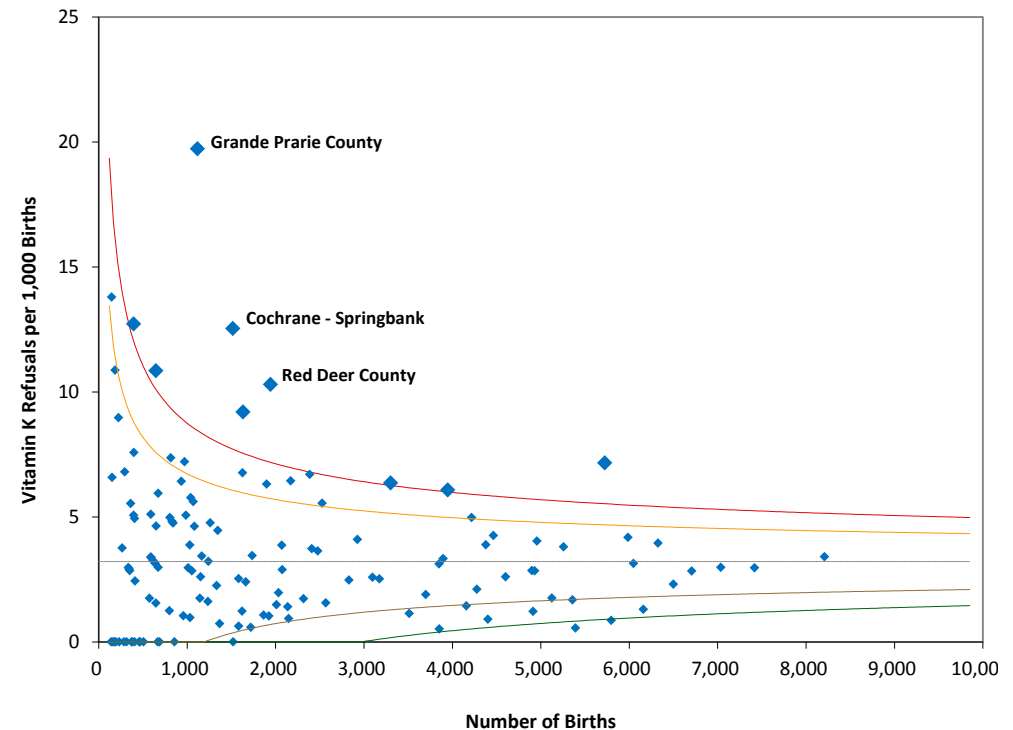
Today's issue of *Health Trends Alberta* looks at the prevalence of Vitamin K refusal by local planning areas in Alberta.

Variability observed between Alberta communities

Out of every 1,000 live births in Alberta between 2006 and 2012, an average of three newborns, or 0.3 per cent did not receive Vitamin K due to parental refusal.

There is apparent clustering of Vitamin K refusal in Alberta by geography. The funnel plot to the right shows the Vitamin K refusal rate per 1,000 births for 132 local areas in Alberta. Values above the yellow (95%) and red (99.8%) “control limits” highlight areas where the refusal rate is higher than the provincial average. These areas are scattered throughout the province. For example, three local areas with relatively high refusal rates are North Zone – Grande Prairie County (19.7/1,000), Calgary Zone – Cochrane-Springbank (12.5/1,000) and Central Zone – Red Deer County (10.3/1,000).

Recent studies have found that parents who refused Vitamin K for their newborns are more likely to have a natural delivery by a midwife at home or in a birth centre². Public health recommendations include increased parental education during the prenatal period about the possible serious consequences of declining Vitamin K at birth.



¹ Khambalia AZ, Roberts, CL, Bowen JR, Nassar N. Maternal and infant characteristics by mode of vitamin K prophylaxis administration. *J Paediatr Child Health*. 2012;48(8):665-668.

² Sahni V, Lai FY, MacDonald S. Neonatal Vitamin K Refusal and Nonimmunization. *Paediatrics* 2014 (in press).