















| vpical forecast q | uestion: GIVEN c | urrent conditi | ons, what is the |
|---------------------|-------------------------------------|--------------------|-------------------------------------|
| probability tha | t within the ne | xt year the t | first significant |
| development w | ill be the resump | tion of lava ex | trusion |
| | Credible interval lower bound | Median estimate | Credible interval upper bound |
| SAC elicitation | 6.3% | 34.1% | 66.1% |
| Brier Skill Score : | the forecast metho | od has predictiv | e skill relative to |
| some reference (e | e.g. climate record) | if BSS is positi | ve. |



| | +ve BSS | zero or -ve BSS |
|--------------------|---------|-----------------|
| All forecasts | 84 | 26 |
| (110 no.) | (76%) | (24%) |
| Life critical | 61 | 14* |
| forecasts (75 no.) | (83%) | (17%) |

| | Brier Skill Score for weather forecasting |
|--|---|
| Brier Score BS = $\frac{1}{n} \sum_{k=1}^{n} (f_k - o_k)^2$ | <i>o_k</i> = 1 if the event occurs 0 if the event does not occur <i>f_k</i> is the probability of occurrence according to the forecast system BS can take on values in the range [0,1], a perfect forecast having BS = 0 |
| Brier Skill Score | |
| $BSS = \frac{BS_{cli} - BS}{BS_{cli}}$ | If BSS is positive, the forecast system has predictive skill relative to some reference (e.g. climate record); |
| $BS_{cli} = \overline{o}(1 - \overline{o})$ | a perfect forecast gives BSS = 1 \overline{o} = total frequency of the event (e.g. from climate) |





















































| | Target Question Grouping | |
|------------------|--------------------------|--|
| <u>Questions</u> | Subject Area | |
| 1-7 | Prevalence | |
| 8-11 | Risk Parameters | |
| 12-15 | Latency | |
| 16-22 | Routes of Transmission | |
| 23-25 | Risk Mitigation | |
| 26-30 | Disease Relationships | |
| | (causal and non-causal) | |



| Preva A set of target quest the world (1), Canac population? (1 in xx) | Prevalence: Target Questions 1, 3-6 of target questions that asked about the current prevalence of XMRV infection vorld (1), Canada (3), USA (4), UK (5) and France (6) in the general adult lation? (1 in xxxxx) | |
|---|---|------------------------|
| Country | Expert Weighted | Expert Range |
| Canada | 1 in 334 | 1 in 12 – 1 in 305,500 |
| USA | 1 in 279 | 1 in 12 – 1 in 305,500 |
| UK | 1 in 450 | 1 in 12 – 1 in 305,500 |
| France | 1 in 450 | 1 in 12 – 1 in 305,500 |
| | | |





M1. What percentage of individuals infected with XMRV longer than 3 months have detectable antibodies?

M2. What percentage of individuals persistently infected with XMRV longer than 3 months have detectable nucleic acids by NAT testing in their blood?

M3. What percentage of individuals persistently infected with XMRV longer than 3 months have detectable nucleic acids by NAT testing in their plasma?

M18. What is the probability of sexual transmission of XMRV between partners in a long-term relationship assuming one partner is XMRV infected?

M31. What percentage of infected XMRV carriers are asymptomatic?

M32. When will the data be available to generate testing/ screening of blood donors for XMRV.





| irst author, country Journal, date | | Patients positive for XMRV? |
|------------------------------------|--|--------------------------------|
| Lombardi, USA | Science, October 2009 | Yes (67%) |
| Erlwein, UK | PLoS One, January 2010 & March 2011 (re-analysis) | No |
| van Kuppelweld, Netherlands | British Medical Journal, February 2010 | No |
| Groom, UK | Retrovirology, February 2010 | No |
| Swizer, USA | Retrovirology, July 2010 | No |
| Lo, USA | Proc Natl Acad Sci, August 2010 | No (but 86.5% MLV) |
| Hong, China | Virology Journal, September 2010 | No |
| Henrich, USA | J Infect Dis, November 2010 | No |
| Hohn, Germany | PloS One, December 2010 | No |
| Satterfield, USA | Retrovirology, February 2011 | No |
| Furuta, Japan | Retrovirology, March 2011 | No |
| Schutzer, USA | Ann Neurol, April 2011 | No |
| Shin, USA | Journal of Virology, May 2011 | No |

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The Harvard study on Kuwait's First Gulf War reparations claim

• Health effects claim based on expert elicitation: ~ 35 deaths

Individual experts' best mortality estimates: 13, 32, 54, 110, 164, 2874

Equal Weights (82 deaths; 90% conf.: 18 to 400) Performance Weights (35 deaths; 90% conf.: 16 to 54)



The judicial decision of the UN Commission eventually rejected the admissibility of this form of evidence: "...not actual data....."











There are several methods of such expert

a specific type of dam, once such leakage starts.

Willy Aspinall

views within the group.