

**LEGISLATIVE COUNCIL**  
**Question on notice**

28 JUN 2011

**Tuesday, 17 May 2011**

3848. Hon Robin Chapple to the Minister for Mental Health representing the Minister for Health.

In reference to the presence of Q fever bacteria *Coxiella burnetii* on Barrow Island, I ask -

- (1) Is the Minister for Health aware that the Q fever bacteria *Coxiella burnetii* has been identified on Barrow Island?
- (2) Has the Health Department or any other Agency ascertained the exposure risk to the Q fever bacteria *Coxiella burnetii* to the current and ever expanding workforce on Barrow Island?
- (3) Have controlled surveys and/or tests been conducted on Barrow Island by the Health Department or any other agency to confirm how widespread the Q fever bacteria *Coxiella burnetii* is on the island?
- (4) If yes to (3), -
  - (a) when was this carried out;
  - (b) by whom; and
  - (c) will the Minister table the results?
- (5) If no to (3), will the Health Department in partnership with Chevron Australia, conduct controlled surveys and tests on Barrow Island to confirm how widespread the Q fever bacteria *Coxiella burnetii* is on the island, and ascertain exposure risk to the current and ever expanding workforce?
- (6) If no to (3) and (5), will the Health Department require that Chevron Australia conduct controlled surveys and tests on Barrow Island to confirm how widespread the Q fever bacteria *Coxiella burnetii* is on the island and ascertain exposure risk to the current and ever expanding workforce?
- (7) Has the Health Department in partnership with Chevron Australia implemented appropriate controls and provided appropriate education to the workforce to lower the risk of exposure to the Q fever bacteria *Coxiella burnetii*?
- (8) If no to (7), will the Health Department in partnership with Chevron Australia implement appropriate controls and provide appropriate education to the workforce to lower the risk of exposure to the Q fever bacteria *Coxiella burnetii*?
- (9) If no to (7) and (8), will the Health Department require Chevron Australia to implement appropriate controls and provide appropriate education to the workforce

to lower the risk of exposure to the Q fever bacteria *Coxiella burnetii*?

(10) Given that Q fever bacteria *Coxiella burnetii* has been identified on Barrow Island and cases of infection have now been recorded, will the Health Department conduct or require Chevron Australia to conduct pre-employment testing and offer immunisation to the ever expanding workforce?

(11) If no to (10), why not?

(12) Will the Health Department interview past Barrow Island employees who have contracted Q fever (reference Dr Clayton Golledge, Microbiologist of Infectious Diseases) to ascertain the possible source of infection and any compensation liability?

(13) If no to (12), why not?

(14) Will the West Australian Notifiable Diseases Database ( WANIDD) be reviewed and updated to include more relevant information concerning occupational hazards, sources of infection, and levels of infection of the Q fever bacteria *Coxiella burnetii* generally and more specifically on Barrow Island?

(15) If no to (14), why not?

(16) Does the Health Department recommend exposure reduction actions that should or must be implemented by employers to lower the exposure risk of their workforce to Q fever bacteria *Coxiella burnetii* on Barrow Island or other locations?

(17) If no to (16), -

(a) why not; and

(b) will the Health Department recommend exposure reduction actions that should or must be implemented by employers to lower the exposure risk of their workforce to Q fever bacteria *Coxiella burnetii* on Barrow Island or other locations?

(18) If no to (17)(b) why not?

(19) Does the Health Department audit or inspect any companies and locations where known Q fever cases have been recorded to ensure that employees are not being unnecessarily or unknowingly exposed to the Q fever bacteria *Coxiella burnetii* in high risk situations?

(20) If no to (19), why not?

(21) Does the Health Department have policy objectives in respect of exposure and risks of infection from Q fever bacteria *Coxiella burnetii*, and will the Minister table them?

(22) If yes to (21), when were these objectives last reviewed and does the Minister consider them sufficiently up-to-date?

(23) If no to (22), -

(a) why not; and

(b) will the Minister instruct the Health Department to create policy objectives in respect of exposure and risks of infection from Q fever bacteria *Coxiella burnetii*?

---

### Answer

(1) Yes – Chevron Australia have advised that studies performed in 2010 identified the presence of *Coxiella burnetii* in marsupial faecal material collected on Barrow Island. There is also indirect evidence that *C. burnetii* occurs on Barrow Island because of the notification in the period 2001-2010 of Q fever infection in three persons who were likely to have been infected via tick bites while working on the Island. The occurrence on Barrow Island of mammals such as bandicoots, euros and wallabies, which have been identified as potential reservoir hosts of *C. burnetii*, and of kangaroo ticks (*Amblyomma triguttatum*), which have been identified as a vector of the organism, in studies on the Australian mainland, is also consistent with the recent identification of *C. burnetii* on the island.

(2) The Department of Health has not ascertained the Q fever exposure risk to the Barrow Island workforce. However, the Department is aware that Chevron Australia has funded studies that have examined the risk of zoonotic infections, including Q fever, in their workforce.

(3 - 4) The Department of Health has not undertaken such surveys. However, the Department is aware that Chevron Australia has in recent years funded studies by collaborators at the University of WA, Murdoch University and the Australian Rickettsial Reference Laboratory (Geelong, Victoria) that have endeavoured to determine if and to what extent *C. burnetii* occurs on Barrow Island in certain mammalian species and ticks.

(5) The results of the work already undertaken on Q fever risk and *C. burnetii* ecology on Barrow Island should be sought from Chevron Australia and its collaborators.

(6) The Department of Health believes that Chevron Australia and its collaborators have already undertaken such work.

(7 - 9) Responsibility for occupational safety and health of its workforce lies with Chevron Australia, and the responsibility for monitoring occupational safety and health more broadly in WA lies with Worksafe. Chevron Australia has indicated to the Department of Health that it has communicated the results of the study findings related to Q fever risk to the Barrow Island workforce and has a comprehensive range of controls in place to reduce the risk of exposure to *C. burnetii*.

(10) No.

(11) See (1). Given the long history of human activity on Barrow Island, increasing in recent years with the development of the Gorgon gas project, the risk of humans developing Q fever

infection while working on Barrow Island does not appear to be large. The Department is aware of 3 cases of Q fever attributed to exposures on Barrow Island in the period 2001-2011. This does not appear to represent a sufficiently high risk to warrant widespread Q fever pre-employment screening and vaccination of persons working on the Island. However, as per recommendations contained in the current NH&MRC (9th Edition, 2008) Australian Immunisation Handbook, it may be appropriate to target Q fever vaccination to those most likely to be exposed, particularly those working in the field who are likely to come in contact with native mammal species and ticks. Determining those who might most benefit from vaccination is properly an occupational safety and health issue for Chevron Australia and its employees.

(12 - 13) The Department of Health seeks occupation and exposure information on all persons notified as having Q fever, including those cases where infection has been associated with exposure on Barrow Island. Issues of compensation are properly matters between the employer and employees, with reference to the *Occupational Safety and Health Act 1984*. Note that there is a legislative requirement on medical practitioners and employers to notify WorkSafe WA of occupationally acquired zoonotic infections, including Q fever.

(14) No.

(15) This goes beyond the purpose of the Western Australian Notifiable Infectious Diseases Database (WANIDD). Follow-up by Department of Health staff of notified cases of Q fever does include attempts to ascertain occupation and most likely source/place of exposure. While most notified cases come from well recognised occupational risk groups, such as abattoir workers, farmers, shearers and those involved in livestock transport, it is not always possible to identify the specific place of exposure and infection, given the mobile work habits of these occupational groups and the characteristics of the organism (e.g. length of the incubation period of up to one month; the variable mode of transmission, which may be through direct contact with infected animals and animal products, but also through airborne spread of the organism in dust, sometimes from distant sources). Note that monitoring of occupational health risks, including zoonotic infections such as Q fever, is properly a responsibility of WorkSafe WA.

(16) No.

(17) (a) This is properly the responsibility of WorkSafe WA.

(b) No.

(18) This is properly the responsibility of WorkSafe WA. Chevron Australia has indicated to the Department of Health that it has a comprehensive range of controls in place to reduce the risk of exposure of their workers to *C. burnetii* on Barrow Island.

(19) No.

(20) This is properly the responsibility of WorkSafe WA.

(21) Not directly. However, the Department of Health advocates Q fever vaccination for at-risk occupational groups as recommended in the current NH&MRC (9th Edition, 2008) Australian Immunisation Handbook, and provides advice and support to health providers in provision of Q fever vaccine.

(22) See (21). The 2008 edition of the Australian Immunisation Handbook is currently under review, although there are not likely to be significant changes to the recommendations relating to vaccination against Q fever.

(23)(a) See (22).

(b) No - This is properly the responsibility of WorkSafe WA.