

**Table 1.** Characteristics of the total population of subjects tested in the study period, by testing wave and testing outcome for acute Q fever (n=1218)

	Q fever positive		Q fever negative		Total	Positive rate
<b>Wave 1</b>						
Subjects tested, n	229		644		873	26.2%
Test ordered by						
GP, n (%)	155	(67.7)	468	(72.2)		
Specialty physician, n (%)	72	(31.4)	170	(26.4)		
Unknown	2	(0.9)	6	(0.9)		
Age in years (week 13 2009)						
Mean (range)	49.0	(0.9 – 85.5)	45.1	(0.5 – 92.4)		
0-19, n (%)	11	(4.8)	87	(13.5)		
20-39, n (%)	46	(24.9)	154	(37.4)		
40-59, n (%)	113	(49.3)	235	(36.5)		
≥60, n (%)	59	(25.8)	168	26.1)		
Sex, n female (%)	83	(36.2)	346	(53.7)		
Residential farm distance, mean km	5.1		6.1			
<b>Wave 2</b>						
Subjects tested, n	24		321		345	7.0%
Test ordered by						
GP, n (%)	19	(79.2)	237	(79.2)		
Specialty physician, n (%)			61	(19.0)		
Unknown	5	(20.8)	23	(7.2)		
Age in years (week 13 2009)						
Mean (range)	46.7	(20.8-71.7)	46.8	(0 – 88.5)		
0-19, n (%)	0	0	42	(13.1)		
20-39, n (%)	4	(16.7)	60	(18.7)		
40-59, n (%)	17	(70.8)	125	(38.9)		
≥60, n (%)	3	(12.5)	94	(29.3)		
Sex, n female (%)	10	(41.7)	184	(57.3)		
Residential farm distance, mean km	5.1		5.7			

**Table 2.** Characteristics of questionnaire respondents with complete questionnaire response, by testing wave and testing outcome for acute Q fever (n=453)

	Q fever positive		Q fever negative	
<b>Wave 1</b>				
Questionnaire recipients, n (% of tested)	229	(100)	391	(60.7)
Respondents, n (response rate)	143	(62.4)	198	(50.6)
Respondents, complete response, n (rate)	140	(97.9)	194	(98.0)
Test ordered by				
GP, n (%)	102	(72.9)	177	(91.2)
Specialty physician, n (%)	38	(27.1)	16	(8.2)
Unknown	0	(0)	1	(0.5)
Age in years (at beginning of study period)				
Mean (range)	49.7	(5.9 – 85.5)	46.7	(0.8 – 92.4)
0-19, n (%)	7	(5.0)	28	(14.4)
20-39, n (%)	23	(16.4)	40	(20.6)
40-59, n (%)	72	(51.4)	64	(33.0)
≥60, n (%)	38	(27.1)	62	(32.0)
Sex, n female (%)	51	(36.4)	106	(54.6)
Residential farm distance, mean km (range)	4.7	(1.9-13.1)	4.8	(1.1-11.6)
Active smoking, n (%)	49	(35.0)	47	(24.2)
<b>Wave 2</b>				
Questionnaire recipients, n (% of tested)	24	(100)	95	(29.6)
Respondents, n (response rate)	19	(79.2)	94	(98.9)
Respondents, complete response, n (rate)	18	(94.7)	91	(96.8)
Test ordered by				
GP, n (%)	13	(72.2)	73	(80.2)
Specialty physician, n (%)				
Unknown	5	(26.3)	18	(19.8)
Age in years (at beginning of study period)				

Mean (range)	47.7	(20.8-71.7)	49.1	(4.4 – 82.3)
0-19, n (%)	0	0	9	(9.9)
20-39, n (%)	3	(16.7)	11	(12.1)
40-59, n (%)	12	(66.7)	43	(47.3)
≥60, n (%)	3	(16.7)	28	(30.8)
Sex, n female (%)	8	(44.4)	56	(61.5)
Residential farm distance, mean km (range)	4.3	(1.6-7.4)	5.1	(1.2-13.1)
Active smoking, n (%)	4	(22.2)	17	(18.7)

**Table 3.** Univariable associations of acute Q fever outcome with potential predictors in adult respondents with complete questionnaire response tested during wave 1, n=334 (Q fever positive n=140, Q fever negative n=194)

	<b>B</b>	<b>S.E.</b>	<b>P</b>	<b>OR</b>	<b>95% CI</b>	
					Lower	Upper
<b>Signs and symptoms</b>						
Fever	1.50	0.31	<0.001	4.47	2.43	8.23
Pneumonia	1.42	0.30	<0.001	4.12	2.29	7.41
Confusion	0.85	0.37	0.023	2.33	1.13	4.83
Flu-like illness	0.78	0.28	0.005	2.19	1.27	3.79
Night sweats	0.76	0.25	0.002	2.14	1.31	3.48
Weight loss	0.72	0.27	0.007	2.05	1.22	3.45
Severe fatigue	0.69	0.25	0.006	1.99	1.22	3.24
Headache	0.52	0.24	0.03	1.67	1.05	2.68
Chest pain	0.51	0.26	0.05	1.67	1.00	2.77
Abdominal pain	-0.81	0.28	0.004	0.45	0.26	0.78
Shortness of breath	0.40	0.25	0.10	1.49	0.92	2.41
Arthralgia	0.33	0.23	0.17	1.39	0.88	2.19
Stiff neck	0.12	0.24	0.62	1.12	0.71	1.79
Exanthema	0.06	0.28	0.84	1.06	0.62	1.82
Diarrhea	0.00	0.25	0.99	1.00	0.62	1.63
Jaundice	-0.65	0.70	0.36	0.52	0.13	2.07
Earache	-0.51	0.34	0.14	0.60	0.31	1.17
Ocular symptoms	-0.36	0.40	0.37	0.70	0.32	1.52
Cough	-0.31	0.24	0.20	0.74	0.46	1.17
Myalgia	-0.06	0.23	0.79	0.94	0.59	1.48
<b>Demographics</b>						
Age 40-59 vs. 20-39	0.67	0.31	0.03	1.96	1.06	3.61
Age ≥60 vs. 20-39	0.06	0.33	0.85	1.07	0.56	2.05

Sex	0.83	0.24	0.001	2.30	1.43	3.67
Residential farm distance	-0.02	0.05	0.68	0.98	0.90	1.08
<b>Others</b>						
Active smoking	0.42	0.25	0.10	1.52	0.93	2.48
Specialty physician vs. GP	1.35	0.34	<0.001	3.85	1.97	7.53

**Table 4.** Multivariable associations of acute Q fever outcome with potential predictors in adult respondents with complete questionnaire response tested during wave 1, n=334 (Q fever positive n=140, Q fever negative n=194)

	<b>B</b>	<b>S.E.</b>	<b>P</b>	<b>OR</b>	<b>95%CI</b>	
Sex	0.56	0.32	0.083	1.75	0.93	3.30
Age 20-39 vs. 40-59	0.82	0.33	0.012	2.26	1.20	4.27
Fever	1.56	0.41	<0.001	4.77	2.15	10.59
Pneumonia	1.25	0.41	0.002	3.47	1.57	7.69
Confusion	1.14	0.56	0.04	3.12	1.04	9.32
Abdominal pain	-0.75	0.38	0.05	0.47	0.22	1.00
Cough	-0.62	0.35	0.08	0.54	0.27	1.07
Earache	-0.99	0.47	0.04	0.37	0.15	0.93
Constant	-1.80	0.46	<0.001	n.a.		

**Table 5.** Multivariable prediction models derived from backward stepwise logistic regression on the four prediction subsets among 334 complete questionnaire respondents (model 1 through 4)

Variable	Model 1				Model 2				Model 3				Model 4			
	B	P	SE	OR	B	P	SE	OR	B	P	SE	OR	B	P	SE	OR
Sex	1.13	<0.001	0.33	3.09	0.66	0.04	0.32	1.94	0.56	0.08	0.32	1.75	0.91	0.01	0.32	2.48
Age 40-59 yrs					0.83	0.01	0.31	2.29								
Age ≥60 yrs	-0.91	0.01	0.37	0.40					0.82	0.01	0.33	2.26	-0.57	0.10	0.34	0.57
Active smoking					0.77	0.03	0.35	2.16	-0.62	0.08	0.35	0.54	0.87	0.01	0.34	2.39
Fever	0.83	0.07	0.46	2.30	1.24	<0.001	0.38	3.45	1.56	<0.001	0.41	4.77	1.25	<0.001	0.38	3.48
Flu-like illness	0.98	0.02	0.41	2.66												
Pneumonia	1.24	0.00	0.38	3.45	1.02	0.01	0.40	2.78	1.25	0.00	0.41	3.47	1.43	0.00	0.42	4.16
Confusion	0.99	0.06	0.53	2.68												
Severe fatigue	0.59	0.10	0.36	1.81												
Abdominal pain	-1.15	0.01	0.42	0.32	-0.76	0.05	0.38	0.47	-0.75	0.05	0.38	0.47	-0.88	0.02	0.37	0.42
Earache	-1.02	0.04	0.49	0.36												
Chest pain					0.61	0.08	0.35	1.84								
Cough					-0.63	0.05	0.32	0.53	-0.99	0.04	0.47	0.37	-0.86	0.01	0.33	0.42
Headache									1.14	0.04	0.56	3.12	0.64	0.06	0.35	1.90
Constant	-2.42	<0.001	0.56	n.a.	-2.15	<0.001	0.47	n.a.	-1.80	<0.001	0.46	n.a.	-1.55	<0.001	0.50	n.a.
$\chi^2$			71.00				52.00				65.00				67.00	
df			9.00				8.00				8.00				8.00	
P			<0.001				<0.001				<0.001				<0.001	
Nagelkerke R <sup>2</sup>			0.37				0.28				0.34				0.33	
Hosmer & Lemeshow			0.69				0.46				0.81				0.71	
Classification accuracy			75.1%				71.8%				73.1%				73.1%	