JTM 15-033: Supplementary on line material

Appendix S6: Sea transport: study characteristics

Author (year)	Study details	Outcome details	Limitations
		Influenza	
		Retrospective cohort studies	
Bell (2014) [40]	Surveillance study; 8 Caribbean cruises ships reported rate of passengers attending the infirmary with ILI.	Rate of ILI/1000 person nights aboard. In total 0.065. Higher rate in passengers than crew. Higher rates in longer cruises	Reporting bias – 48% of voyages reported. No post cruise follow-up of passengers.
Brotherton (2013)[41]	Analysis of an outbreak on a cruise from Sydney to Noumea.	37% of passengers reported ILI. 47 lab confirmed cases (5.6%)	Passengers questioned 3 months after travel, large possibility of recall bias
Christensen (2001)[37]	Proportion of passengers and crew reporting ILI and ARI on a Baltic cruise.	13% of crew and 4% of passengers reported ARI. 71% of those crew and 64% of those passengers had ILI	Cases had to self-report therefore possible underestimation of transmission.
Miller (2000)[38]	ARI on cruises between New York and Montréal, 10 days each way.	2-5% of passengers and 1-8% of crew reported ARI on voyages	Possibility of acquiring infection prior to travelling.
Ward (2010)[39]	Investigation of pandemic and seasonal flu outbreak on a cruise from Sydney to pacific islands.	3% of passengers had A(H1N1), 3.6% had seasonal A(H3N2) (0.1% co-infected). Sharing a cabin with index case increased risk of transmission	Cases had to self-report, follow up time was limited therefore the number of cases could have been higher.
		Qualitative study	
Palmer (2007)[42]	Investigation of the role of sea transport in introducing influenza to new areas in 1918. Uses provincial death records, hospital P&I records, shipping records and interviews	Coastal areas with the highest boat traffic had more influenza deaths. Boats moved between northern communities where influenza spread quickly.	Uses P&I data therefore doesn't take into account natural winter deaths. Is based on 1918 sea transport therefore may be less relevant to the types of transport used nowadays.
		SARS-CoV	

No studies identified
MERS-CoV
No studies identified