JTM 15-033: Supplementary on line material

Appendix S7: Ground transportation: study characteristics

Author (year)	Study details	Outcome details	Limitations
Influenza			
Retrospective cohort studies			
Cui (2011)[45]	Investigation of influenza transmission on a long distance train journey with one index case, 2555 & 52 crew.	Infection was confirmed in 8 passengers and 5 crew. Higher AR in persons aboard the longest Higher risk of infection if in same car as index case. Transmission to persons on arrival at destination was noted.	Other sources of infection were not excluded
Pestre (2012)[44]	Outbreak of ILI in a group travelling on 2 buses and a train.	ILI AR of the travelling group 84%.	Investigation was restricted to the group travelling together. No information on transmission to other passengers.
Piso (2007)[43]	Influenza transmission on a bus from Spain to Switzerland with 72 passengers, 2 symptomatic aboard	One further case confirmed. Transmission risk 1.96% (95% CI: 0-5.76%)	Other exposures not excluded.
Troko (2011)[48]	Case control study of the association between public transport use and consulting the GP with ARI in Nottingham. Controls consulted GP for other acute conditions.	After adjusting for confounders those with ARI were almost 6 times more likely to have recently used public transport than controls; although frequent public transport use was found to be protective.	Limited to Nottingham. ARI is not limited to influenza. Small study-group therefore no subgroup analysis available.
Qualitative study			
Palmer (2007)[42]	Investigation of the role of rail transport in accelerating influenza spread to new areas in 1918. Uses provincial death records, hospital P&I records interviews	Railway lines connected cities without ports. People didn't walk between cities therefore railways accelerated influenza spread.	Studies influenza in 1918, methods and behaviours on transport have changed considerably since then.
Modelling studies			

Zhu (2012)[46]	Investigating the theoretical risk of transmission on a bus with 26 seated, four standing.	Passengers at the front or between index case and exhaust have the highest risk of infection.	Assumes no passenger movement or opening and closing of doors
Furuya (2014)[47]	Modelling transmission on a train with 150 passengers, 13ACH	Median R_0=2.2. Exposure time increases risk linearly. Passenger density increases risk. Low risk if<30 minutes exposure	No investigation of model suitability
		SARS-CoV	
		No studies identified	
		MERS-CoV	
		No studies identified	