Figure S1. Diary used by participants to record all contacts that they met in a 24-hour period. The								
name of the study community has been blacked out								

Participant ID Assigned Date Assigned Date									
Place 1		□ Indoors	☐ Your household	Time spent:	Time of day:	People to	touched or talked to:		
	☐ Out of	☐ Outdoors	☐ Other household	□ 0 - 15min	☐ Morning	Age	Gender	Touched	First time
			on your plot	□ 15min – 1hr	☐ Afternoon				today
			☐ Outside on your	$\Box 1 - 2$ hrs	☐ Evening		$\Box M \Box F$	$\Box Y \Box N$	$\square Y \square N$
			plot	\square 2 – 4hrs			$\Box M \Box F$	$\Box Y \Box N$	$\Box Y \Box N$
			☐ Other household	□ 4 - 8hrs			\Box M \Box F	$\Box Y \Box N$	$\Box Y \Box N$
			off your plot	\square 8 – 12hrs			\Box M \Box F	$\Box Y \Box N$	$\Box Y \Box N$
			\square Street(s)	☐ More than 12hrs			\Box M \Box F	$\Box Y \Box N$	$\Box Y \Box N$
			☐ Taxi				\Box M \Box F	$\Box Y \Box N$	$\Box Y \Box N$
			□ Bus				\Box M \Box F	$\Box Y \Box N$	$\square Y \square N$
			☐ Train				\Box M \Box F	$\Box Y \Box N$	$\Box Y \Box N$
			☐ Spaza shop				\Box M \Box F	$\Box Y \Box N$	$\Box Y \Box N$
			☐ Community hall				$\Box M \Box F$	$\Box Y \Box N$	$\Box Y \Box N$
			☐ Soccer field				$\Box M \Box F$	$\Box Y \Box N$	$\Box Y \Box N$
			☐ Your work:				\Box M \Box F	$\Box Y \Box N$	$\Box Y \Box N$
			☐ Your school:				$\Box M \Box F$	$\Box Y \Box N$	$\Box Y \Box N$
			I our school:				$\Box M \Box F$	$\Box Y \Box N$	$\Box Y \Box N$
			Crèche:				$\Box M \Box F$	$\Box Y \Box N$	$\Box Y \Box N$
			Cicciic.				$\Box M \Box F$	$\Box Y \Box N$	$\square Y \square N$
			Church:				$\Box M \Box F$	$\Box Y \Box N$	$\square Y \square N$
			Charen.				$\Box M \Box F$	$\Box Y \Box N$	$\Box Y \Box N$
			☐ Clinic/hospital:				$\Box M \Box F$	$\Box Y \Box N$	$\Box Y \Box N$
							$\Box M \Box F$	$\Box Y \Box N$	$\square Y \square N$
			☐ Library:				$\Box M \Box F$	$\Box Y \Box N$	$\Box Y \Box N$
							$\Box M \Box F$	$\Box Y \Box N$	$\Box Y \Box N$
			☐ Gym:				$\Box M \Box F$	$\Box Y \Box N$	$\square Y \square N$
							$\Box M \Box F$	$\Box Y \Box N$	$\square Y \square N$
			☐ Shebeen:				$\Box M \Box F$	$\Box Y \Box N$	$\Box Y \Box N$
						<u>If indoors</u>			
			☐ Other:			People not touched or talked to:			
						Number:			

Figure S2. Estimated mean close and casual contacts present during a visit to a location, by location type.

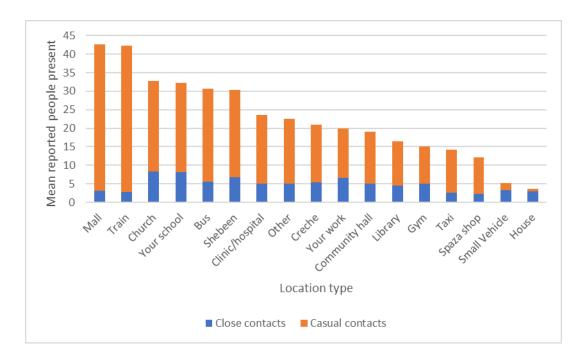


Figure S3. Estimated casual contact rates between different age groups in the main analysis and three sensitivity analyses. Rates are the estimated rate of contact per day between each individual in age group a with each individual in age group b (assuming a closed community). Graphs a) and b) show results from the main analysis. Graphs c) and d) show results when location types that fewer than 20 people reported visiting were excluded from the analysis. Graphs e) and f) show results when the proportions of people present in each type of location who were in each age group were estimated by time of day (morning, afternoon, or evening). Graphs g) and h) show results when the age distribution of casual contacts in workplaces was estimated from the age distribution of close contacts that respondents reported contacting in workplaces. *Age mixing patterns in schools are adjusted. See Analysis section for details.

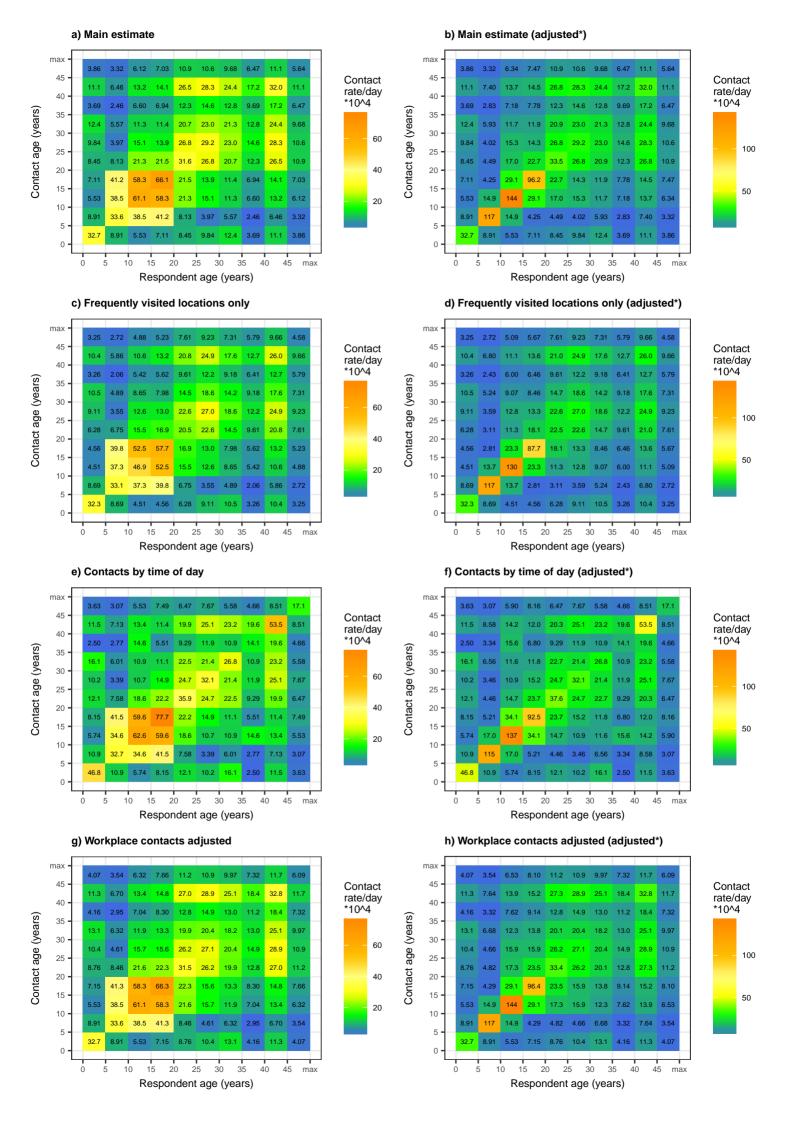


Figure S4. Estimated mean contact time between different age groups in the main analysis and three sensitivity analyses. Contact times are the estimated mean number of seconds of contact per day between each individual in age group a with each individual in age group b (assuming a closed community). Graphs a) and b) show results from the main analysis. Graphs c) and d) show results when location types that fewer than 20 people reported visiting were excluded from the analysis. Graphs e) and f) show results when the proportions of people present in each type of location who were in each age group were estimated by time of day (morning, afternoon, or evening). Graphs g) and h) show results when the age distribution of casual contacts in workplaces was estimated from the age distribution of close contacts that respondents reported contacting in workplaces. *Age mixing patterns in schools are adjusted. See Analysis section for details.

