

Supplementary Material

1 SUPPLEMENTARY TABLES AND FIGURES

Figure S1 shows the levels visited by 4 selected HCW in hospital B during a normal week. We observe that nurses and physicians did not visit the basement, while administrative assistants and those that reported their category as *other* could be easily found there. Similarly, while nurses and *other* did not visit the last floor, physicians and administrative assistants did.

Figures S2 and S3 show the results when a constant influx of infections from the outside is included in the propagation. Every time step, with probability $10/N$ a randomly selected susceptible individual becomes infected. With this probability, 0.2%, 1% and 1.3% of the total infections are caused by this mechanism in hospitals A, B and C, respectively.

Tables S1 and S2 show the results when the outbreak is seeding using individuals of one specific category. Each category is represented by their capital letter (e.g., outbreaks that start from physicians are labeled as P). We do not observe large differences in the results as a function of which category is the one to start an outbreak.

1.1 Figures

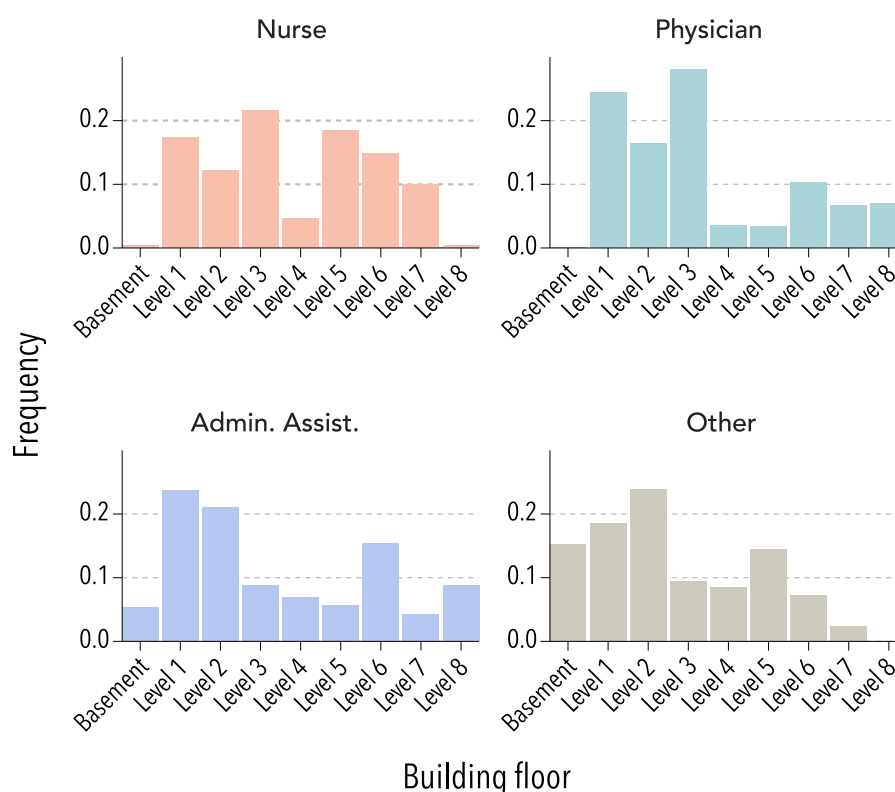


Figure S1. Floors visited by 4 selected HCW groups in hospital B during a normal week.

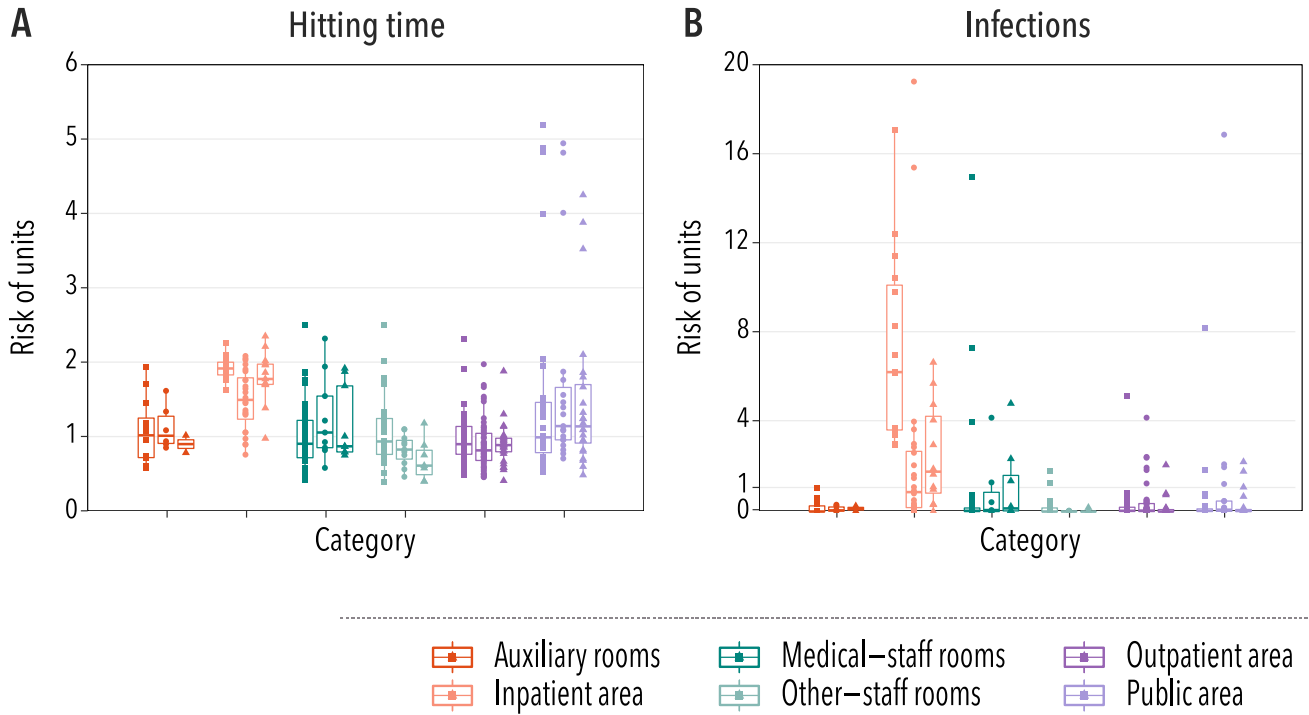


Figure S2. Spatial spreading when there is a constant influx of cases from the outside. In panel A, the relative risk of infection is gauged using the hitting time, while in panel B it is measured by taking into account the number of infections produced within each unit.

1.2 Tables

Category/Seed	Hospital A								Hospital B								Hospital C							
	N	P	R	T	A	C	O		N	P	R	T	A	C	O		N	P	R	T	A	C	O	
Nurse	1.36	1.36	1.36	1.36	1.36	1.36	1.36		1.05	1.06	1.05	1.04	1.07	1.04	1.05		1.27	1.27	-	1.27	1.18	1.26	1.25	
Physician	1.23	1.22	1.22	1.23	1.23	1.23	1.24		0.83	0.83	0.85	0.83	0.83	0.83	0.82		1.06	1.05	-	1.03	1.03	1.08	1.04	
Researcher	1.16	1.19	1.14	1.15	1.13	1.14	1.16		0.59	0.70	0.60	0.68	0.55	0.64	0.66		-	-	-	-	-	-	-	
Technologist	1.21	1.21	1.21	1.22	1.22	1.20	1.21		1.34	1.33	1.36	1.34	1.33	1.33	1.34		1.09	1.09	-	1.09	1.07	1.08	1.09	
Administration	0.73	0.73	0.71	0.74	0.72	0.70	0.72		0.75	0.73	0.73	0.71	0.73	0.78	0.75		0.07	0.07	-	0.12	NA	0.09	0.07	
Clerk	0.57	0.58	0.59	0.58	0.59	0.60	0.60		1.01	1.01	1.01	1.00	1.00	1.01	1.01		1.07	1.08	-	1.11	1.18	1.09	1.13	
Other	0.97	0.96	0.97	0.99	0.97	0.97	0.97		1.04	1.04	1.03	1.06	1.03	1.03	1.04		0.77	0.77	-	0.78	0.81	0.79	0.78	

Table S1. Risk of HCWs measured using the probability of getting infected. We show the median value for each occupational group of HCWs as a function of the category of the first infected individual (represented by their corresponding capital letters). The values in bold represent the top two high-risk categories in each hospital and initial conditions.

Category/Seed	Hospital A								Hospital B								Hospital C							
	N	P	R	T	A	C	O		N	P	R	T	A	C	O		N	P	R	T	A	C	O	
Nurse	1.23	1.26	1.22	1.23	1.23	1.25	1.26		1.04	1.03	1.01	1.04	1.03	1.03	1.05		1.11	1.09	-	1.09	1.05	1.09	1.10	
Physician	0.98	0.98	0.95	0.96	0.95	0.99	0.94		0.83	0.83	0.83	0.80	0.81	0.81	0.82		0.91	0.90	-	0.90	0.90	0.90	0.89	
Researcher	0.87	0.88	0.90	0.81	0.83	0.82	0.82		0.69	0.70	0.66	0.76	0.82	0.87	0.87		-	-	-	-	-	-	-	
Technologist	1.09	1.11	1.05	1.09	1.10	1.09	1.08		1.10	1.05	1.10	1.14	1.04	1.05	1.04		0.99	1.03	-	1.03	0.99	1.07	1.03	
Administration	0.73	0.73	0.74	0.71	0.72	0.72	0.72		0.71	0.72	0.69	0.68	0.77	0.71	0.69		0.40	0.25	-	0.66	-	0.32	0.50	
Clerk	0.65	0.62	0.61	0.61	0.60	0.61	0.64		0.96	1.01	0.95	1.00	0.96	0.97	1.00		1.00	0.96	-	0.96	1.11	0.96	1.03	
Other	0.82	0.79	0.82	0.79	0.81	0.82	0.82		0.87	0.85	0.90	0.90	0.89	0.86	0.89		0.78	0.78	-	0.74	0.72	0.74	0.80	

Table S2. Risk of HCWs measured using the effective reproduction number. We show the median value of the risk for each occupational group of HCWs as a function of the category of the first infected individual (represented by their corresponding capital letters). The values in bold represent the top two high-risk categories in each hospital and initial condition.

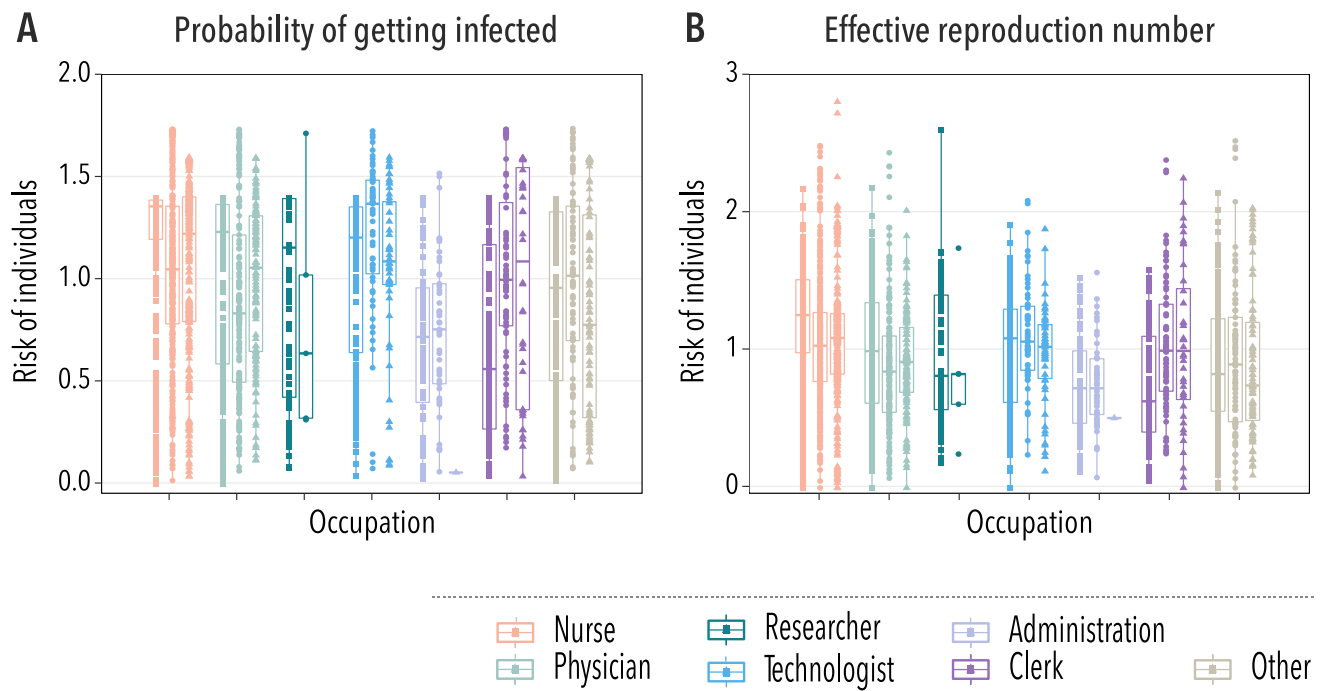


Figure S3. Spreading of the disease across HCWs when there is a constant influx of cases from the outside. In panel A, we show the relative risk measured as the probability of getting infected during an outbreak. In panel B, risk is gauged using the average number of infections produced by an individual during an outbreak.