

S1 Data. Urban Pandemic Response RACI Matrices.

Legend		
Governance Level	National (N)	<i>National government</i>
	Subnational (S)	<i>State, provincial, district, or county governments</i>
	Local (L)	<i>City or municipal governments</i>
RACI Roles	Responsible (R)	<i>The level of government that implemented the work required to complete an activity</i>
	Accountable (A)	<i>The level of government that oversaw the correct and thorough completion of an activity</i>
	Consulted (C)	<i>Levels of government engaging in two-way communication to provide information necessary for the completion of an activity</i>
	Informed (I)	<i>Level of government that was updated regarding a given activity (i.e., one-way communication)</i>

Accra, Ghana	Activity	N	S	L
	Financing emergency public health response activities	RA	RI	RI
	Mandating business closures	A	RC	I
	Mandating curfews/lockdowns	RA	I	I
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RA	RC	RC
	Mandating school closures	RA	C	I
	Suspending routine public services (e.g. transit, sanitation, etc.)	RA	C	C
	Conducting data analysis and surveillance activities	RA	RC	R
	Risk communication activities	RA	RC	R
	Maintaining essential health services	RA	RC	RC
	Surging medical care to meet increased demand	RA	RC	RC
	Coordinating with health care systems and organizations	RC	RA	RC
	Coordinating with community-based and civil society organizations	RC	RA	RC
	Providing diagnostic testing services	RA	C	C
	Contact tracing activities	C	RA	C
	Providing quarantine and isolation services	RA	RC	C
	Conducting immunization campaigns	RI	RA	RC

Addis Ababa, Ethiopia	Activity	N	S	L
	Financing emergency public health response activities	RA	R	
	Mandating business closures	C	R	RA
	Mandating curfews/lockdowns	RA	R	RC
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RC	RC	A
	Mandating school closures	RA	R	C
	Suspending routine public services (e.g. transit, sanitation, etc.)	RA	R	
	Conducting data analysis and surveillance activities	RC	RC	RA
	Risk communication activities	RC	RC	RA
	Maintaining essential health services	RC	RC	A
	Surging medical care to meet increased demand	RC	R	RA
	Coordinating with health care systems and organizations	RA	RC	C
	Coordinating with community-based and civil society organizations	RC	RC	RA
	Providing diagnostic testing services	RA	RC	RC
	Contact tracing activities	RC	RC	RA
	Providing quarantine and isolation services	RC	RC	A
	Conducting immunization campaigns	RC	RC	A

Amman, Jordan	Activity	N	S	L
	Financing emergency public health response activities	RA		
	Mandating business closures	RA		
	Mandating curfews/lockdowns	RA		
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RA		
	Mandating school closures	RA		
	Suspending routine public services (e.g. transit, sanitation, etc.)	RA		
	Conducting data analysis and surveillance activities	RA		
	Risk communication activities	RA		R
	Maintaining essential health services	RA		
	Surging medical care to meet increased demand	RA		
	Coordinating with health care systems and organizations	RA		
	Coordinating with community-based and civil society organizations	RA		
	Providing diagnostic testing services	RA		
	Contact tracing activities	RA		
	Providing quarantine and isolation services	RA		
	Conducting immunization campaigns	RA		

Athens, Greece	Activity	N	S	L
	Financing emergency public health response activities	RA		R
	Mandating business closures	RA		
	Mandating curfews/lockdowns	RA		
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RA		
	Mandating school closures	RA		
	Suspending routine public services (e.g. transit, sanitation, etc.)	RA		
	Conducting data analysis and surveillance activities	RA		
	Risk communication activities	RA		
	Maintaining essential health services	RA		R
	Surging medical care to meet increased demand	RA		R
	Coordinating with health care systems and organizations	RA		
	Coordinating with community-based and civil society organizations			RA
	Providing diagnostic testing services	RA	R	R
	Contact tracing activities	RA		
	Providing quarantine and isolation services	RA		
Conducting immunization campaigns	RA			

Bandung, Indonesia	Activity	N	S	L
	Financing emergency public health response activities	RA	RC	RC
	Mandating business closures	RC	RA	RC
	Mandating curfews/lockdowns	RA	RC	RC
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RC	RC	RA
	Mandating school closures	RC	RA	RC
	Suspending routine public services (e.g. transit, sanitation, etc.)	RA	RC	RC
	Conducting data analysis and surveillance activities	C	RC	RA
	Risk communication activities	RC	RC	RA
	Maintaining essential health services	RC	RC	RA
	Surging medical care to meet increased demand	RC	RA	RC
	Coordinating with health care systems and organizations	R	RA	RC
	Coordinating with community-based and civil society organizations	C	RC	RA
	Providing diagnostic testing services	RC	RC	RA
	Contact tracing activities	C	RC	RA
	Providing quarantine and isolation services	RC	RC	RA
Conducting immunization campaigns	RC	RC	RA	

Bangkok, Thailand	Activity	N	S	L
	Financing emergency public health response activities	RA	RC	I
	Mandating business closures	RA	RC	I
	Mandating curfews/lockdowns	RA	RC	I
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RA	RC	I
	Mandating school closures	RA	RC	I
	Suspending routine public services (e.g. transit, sanitation, etc.)	RA	RC	I
	Conducting data analysis and surveillance activities	RA	C	I
	Risk communication activities	RA	RC	I
	Maintaining essential health services	RA	RC	I
	Surging medical care to meet increased demand	RA	RC	I
	Coordinating with health care systems and organizations	RA	RC	I
	Coordinating with community-based and civil society organizations	RA	RC	I
	Providing diagnostic testing services	RA	RC	I
	Contact tracing activities	RA	RC	I
	Providing quarantine and isolation services	RA	RC	I
Conducting immunization campaigns	RA	RC	I	

Barcelona, Spain	Activity	N	S	L
	Financing emergency public health response activities		RA	C
	Mandating business closures		RA	C
	Mandating curfews/lockdowns	RI	RA	C
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RI	RA	C
	Mandating school closures		RC	A
	Suspending routine public services (e.g. transit, sanitation, etc.)	R	A	C
	Conducting data analysis and surveillance activities	R	RC	RA
	Risk communication activities	R	RC	RA
	Maintaining essential health services	RI	RA	C
	Surging medical care to meet increased demand		RA	C
	Coordinating with health care systems and organizations	R	RA	RC
	Coordinating with community-based and civil society organizations		RC	RA
	Providing diagnostic testing services	C	RA	I
	Contact tracing activities		C	RA
	Providing quarantine and isolation services		C	RA
Conducting immunization campaigns	RC	RA	RI	

Bengaluru, India	Activity	N	S	L
	Financing emergency public health response activities		RA	R
	Mandating business closures		RC	RA
	Mandating curfews/lockdowns		RC	RA
	Mandating individual behavior changes (e.g., facemasks/social distancing)		RC	RA
	Mandating school closures		RC	A
	Suspending routine public services (e.g. transit, sanitation, etc.)		RC	A
	Conducting data analysis and surveillance activities		RC	RA
	Risk communication activities		RC	RA
	Maintaining essential health services		RC	RA
	Surging medical care to meet increased demand		RA	RC
	Coordinating with health care systems and organizations		RC	RA
	Coordinating with community-based and civil society organizations		RC	RA
	Providing diagnostic testing services		RC	RA
	Contact tracing activities			RA
	Providing quarantine and isolation services			RA
	Conducting immunization campaigns		RC	RA

Buenos Aires, Argentina	Activity	N	S	L
	Financing emergency public health response activities	RC	RA	
	Mandating business closures	RC	A	
	Mandating curfews/lockdowns	RC	A	
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RC	RA	
	Mandating school closures	RC	RA	
	Suspending routine public services (e.g. transit, sanitation, etc.)	RC	RA	
	Conducting data analysis and surveillance activities		RA	
	Risk communication activities		RA	
	Maintaining essential health services	I	RA	
	Surging medical care to meet increased demand	I	RA	
	Coordinating with health care systems and organizations	RI	RA	
	Coordinating with community-based and civil society organizations		RA	
	Providing diagnostic testing services		RA	
	Contact tracing activities		RA	
	Providing quarantine and isolation services		RA	
	Conducting immunization campaigns	I	RA	

Cali, Colombia	Activity	N	S	L
	Financing emergency public health response activities	RA	RC	
	Mandating business closures	RI		RA
	Mandating curfews/lockdowns	I		RA
	Mandating individual behavior changes (e.g., facemasks/social distancing)	I		RA
	Mandating school closures	RC	I	RA
	Suspending routine public services (e.g. transit, sanitation, etc.)	I		RA
	Conducting data analysis and surveillance activities	RC	RI	RA
	Risk communication activities		RC	RA
	Maintaining essential health services		RC	RA
	Surging medical care to meet increased demand		RC	RA
	Coordinating with health care systems and organizations		RC	RA
	Coordinating with community-based and civil society organizations		RC	RA
	Providing diagnostic testing services			RA
	Contact tracing activities			RA
	Providing quarantine and isolation services		R	RA
	Conducting immunization campaigns	C	RC	RA

Colombo, Sri Lanka	Activity	N	S	L
	Financing emergency public health response activities	C		RA
	Mandating business closures	RA		I
	Mandating curfews/lockdowns	RA		I
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RA		I
	Mandating school closures	RA		I
	Suspending routine public services (e.g. transit, sanitation, etc.)	A		RI
	Conducting data analysis and surveillance activities	RA		R
	Risk communication activities	RA		RI
	Maintaining essential health services	RA		
	Surging medical care to meet increased demand	RA		
	Coordinating with health care systems and organizations	RA		R
	Coordinating with community-based and civil society organizations	RA		R
	Providing diagnostic testing services	RA		
	Contact tracing activities	RA		R
	Providing quarantine and isolation services	RA		R
	Conducting immunization campaigns	RA		R

Guadalajara, Mexico	Activity	N	S	L
	Financing emergency public health response activities	RA	RC	RC
	Mandating business closures	RC	RA	RI
	Mandating curfews/lockdowns	RC	RA	R
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RC	RC	RA
	Mandating school closures	RC	RC	RA
	Suspending routine public services (e.g. transit, sanitation, etc.)		I	RA
	Conducting data analysis and surveillance activities	RC	RA	RC
	Risk communication activities	RC	RA	RC
	Maintaining essential health services	RC	RC	RA
	Surging medical care to meet increased demand	RC	RA	RC
	Coordinating with health care systems and organizations	RC	RA	RC
	Coordinating with community-based and civil society organizations			RA
	Providing diagnostic testing services	RC	RA	RC
	Contact tracing activities		RA	RC
	Providing quarantine and isolation services		I	RA
Conducting immunization campaigns	RA	RI	RI	

Kampala, Uganda	Activity	N	S	L
	Financing emergency public health response activities	C	C	RA
	Mandating business closures		C	RA
	Mandating curfews/lockdowns	RC	RA	RC
	Mandating individual behavior changes (e.g., facemasks/social distancing)	C	C	RA
	Mandating school closures	RC	RC	RA
	Suspending routine public services (e.g. transit, sanitation, etc.)	RC	RC	RA
	Conducting data analysis and surveillance activities	RC		RA
	Risk communication activities	RC		RA
	Maintaining essential health services	C		RA
	Surging medical care to meet increased demand	RC	R	RA
	Coordinating with health care systems and organizations	RC		RA
	Coordinating with community-based and civil society organizations	RC	I	RA
	Providing diagnostic testing services	C		RA
	Contact tracing activities	C		RA
	Providing quarantine and isolation services	RA		RC
Conducting immunization campaigns			RA	

Kigali, Rwanda	Activity	N	S	L
	Financing emergency public health response activities	RA	I	RC
	Mandating business closures	RI	RC	RA
	Mandating curfews/lockdowns	RI	RC	RA
	Mandating individual behavior changes (e.g., facemasks/social distancing)	I	RC	RA
	Mandating school closures	RA	I	I
	Suspending routine public services (e.g. transit, sanitation, etc.)	RI	RI	RA
	Conducting data analysis and surveillance activities	RA	RI	RI
	Risk communication activities	I	RI	RA
	Maintaining essential health services	I	RI	RA
	Surging medical care to meet increased demand	I	RI	RA
	Coordinating with health care systems and organizations	RC	RI	RA
	Coordinating with community-based and civil society organizations	I	RI	RA
	Providing diagnostic testing services	RA	I	I
	Contact tracing activities	I	RI	RA
	Providing quarantine and isolation services	I	RI	RA
	Conducting immunization campaigns	I	RI	RA

Kumasi, Ghana	Activity	N	S	L
	Financing emergency public health response activities	RA	I	RC
	Mandating business closures	RA	C	RC
	Mandating curfews/lockdowns	RA	I	I
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RA	I	C
	Mandating school closures	RA	I	C
	Suspending routine public services (e.g. transit, sanitation, etc.)	RA	I	RC
	Conducting data analysis and surveillance activities	RC	R	RA
	Risk communication activities	RC	I	RA
	Maintaining essential health services	RA	I	R
	Surging medical care to meet increased demand	RA	I	R
	Coordinating with health care systems and organizations	RA	R	RC
	Coordinating with community-based and civil society organizations	RC	C	RA
	Providing diagnostic testing services	RA	I	I
	Contact tracing activities	RA	I	RC
	Providing quarantine and isolation services	RA	I	C
	Conducting immunization campaigns	RA	I	RC

Lima, Peru	Activity	N	S	L
	Financing emergency public health response activities	RA	C	RC
	Mandating business closures	RA	C	I
	Mandating curfews/lockdowns	RA	C	I
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RC	RC	RA
	Mandating school closures	RA	C	I
	Suspending routine public services (e.g. transit, sanitation, etc.)	RA	C	RC
	Conducting data analysis and surveillance activities	RA	C	R
	Risk communication activities	RA	RC	R
	Maintaining essential health services	RA	RC	RC
	Surging medical care to meet increased demand	RA	RC	RC
	Coordinating with health care systems and organizations	RA	C	C
	Coordinating with community-based and civil society organizations	RA	RC	RC
	Providing diagnostic testing services	RA	RC	RC
	Contact tracing activities	RA	RC	RC
	Providing quarantine and isolation services	RA	RC	RC
Conducting immunization campaigns	RA	RC	RC	

London, United Kingdom	Activity	N	S	L
	Financing emergency public health response activities	RA	RC	C
	Mandating business closures	A	RC	C
	Mandating curfews/lockdowns	A	RC	C
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RA	RC	RC
	Mandating school closures	RA	RC	I
	Suspending routine public services (e.g. transit, sanitation, etc.)	A	RC	RC
	Conducting data analysis and surveillance activities	RA	RC	R
	Risk communication activities	RA	RC	RC
	Maintaining essential health services		C	C
	Surging medical care to meet increased demand		C	C
	Coordinating with health care systems and organizations		RC	RA
	Coordinating with community-based and civil society organizations	C	RC	RA
	Providing diagnostic testing services	A	RC	C
	Contact tracing activities	A	RC	C
	Providing quarantine and isolation services	A	RC	C
Conducting immunization campaigns	C	C	C	

Lusaka, Zambia	Activity	N	S	L
	Financing emergency public health response activities	RC	C	A
	Mandating business closures	RI	RC	RA
	Mandating curfews/lockdowns	RI	C	A
	Mandating individual behavior changes (e.g., facemasks/social distancing)	R	RC	RA
	Mandating school closures	RC	C	A
	Suspending routine public services (e.g. transit, sanitation, etc.)	RC	C	A
	Conducting data analysis and surveillance activities	RI	RC	A
	Risk communication activities	RC	RC	RA
	Maintaining essential health services	RA	RC	RC
	Surging medical care to meet increased demand	RC	A	
	Coordinating with health care systems and organizations	RC	RA	RC
	Coordinating with community-based and civil society organizations		C	RA
	Providing diagnostic testing services	RC	RC	A
	Contact tracing activities		RC	A
	Providing quarantine and isolation services	RA	RC	RC
Conducting immunization campaigns	RC	RC	RA	

Medellín, Colombia	Activity	N	S	L
	Financing emergency public health response activities	RC	RC	RA
	Mandating business closures	RC	RC	RA
	Mandating curfews/lockdowns	RC	RC	RA
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RC	RC	RA
	Mandating school closures	RC	RC	RA
	Suspending routine public services (e.g. transit, sanitation, etc.)	RC	RC	RA
	Conducting data analysis and surveillance activities	RC	RC	RA
	Risk communication activities	RC	RC	RA
	Maintaining essential health services	RC	RC	RA
	Surging medical care to meet increased demand	RC	RC	RA
	Coordinating with health care systems and organizations	RC	RC	RA
	Coordinating with community-based and civil society organizations	C	RC	RA
	Providing diagnostic testing services	RC	RC	RA
	Contact tracing activities	RC	RC	RA
	Providing quarantine and isolation services	RC	RC	RA
Conducting immunization campaigns	RC	RC	RA	

Ouagadougou, Burkina Faso	Activity	N	S	L
	Financing emergency public health response activities	RA	R	RC
	Mandating business closures	RC		RA
	Mandating curfews/lockdowns	RA	R	C
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RC		RA
	Mandating school closures	RA		RC
	Suspending routine public services (e.g. transit, sanitation, etc.)	RA		RC
	Conducting data analysis and surveillance activities	RA		I
	Risk communication activities	RC		RA
	Maintaining essential health services	RA		C
	Surging medical care to meet increased demand	RA		C
	Coordinating with health care systems and organizations	RA		I
	Coordinating with community-based and civil society organizations	C		RA
	Providing diagnostic testing services	RA		
	Contact tracing activities	RA		
	Providing quarantine and isolation services	RA		
Conducting immunization campaigns	RA			

Rio de Janeiro, Brazil	Activity	N	S	L
	Financing emergency public health response activities	RA	RC	RC
	Mandating business closures	RC	RC	RA
	Mandating curfews/lockdowns	RC	RC	RA
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RC	RC	RA
	Mandating school closures	RC	RC	RA
	Suspending routine public services (e.g. transit, sanitation, etc.)	RC	RC	RA
	Conducting data analysis and surveillance activities	RC	RC	RA
	Risk communication activities	RC	RC	RA
	Maintaining essential health services	RA	RC	RC
	Surging medical care to meet increased demand	RA	RC	RC
	Coordinating with health care systems and organizations	RA	RC	RC
	Coordinating with community-based and civil society organizations	RC	RC	RA
	Providing diagnostic testing services	RC	RC	RA
	Contact tracing activities	RC	RC	RA
	Providing quarantine and isolation services	RC	RC	RA
Conducting immunization campaigns	RA	RC	RC	

Santiago, Chile	Activity	N	S	L
	Financing emergency public health response activities	RC	RA	I
	Mandating business closures	RC	RA	I
	Mandating curfews/lockdowns	RC	RA	I
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RC	RA	I
	Mandating school closures	RC	RA	I
	Suspending routine public services (e.g. transit, sanitation, etc.)	RC	RA	I
	Conducting data analysis and surveillance activities	RC	RA	I
	Risk communication activities	RC	RA	RI
	Maintaining essential health services	RC	RA	RI
	Surging medical care to meet increased demand	RC	RA	RI
	Coordinating with health care systems and organizations	RC	RA	RI
	Coordinating with community-based and civil society organizations	C	RA	RI
	Providing diagnostic testing services	C	RA	RI
	Contact tracing activities	RC	RA	RI
	Providing quarantine and isolation services	C	RA	RI
Conducting immunization campaigns	RC	RA	RI	

Santo Domingo, Dominican Republic	Activity	N	S	L
	Financing emergency public health response activities	RA	RI	RI
	Mandating business closures	RA	I	I
	Mandating curfews/lockdowns	RA	I	I
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RA	I	I
	Mandating school closures	RA	I	I
	Suspending routine public services (e.g. transit, sanitation, etc.)	RA	I	I
	Conducting data analysis and surveillance activities	RA	RI	I
	Risk communication activities	RA	RI	RI
	Maintaining essential health services	RA	RI	I
	Surging medical care to meet increased demand	RA	I	I
	Coordinating with health care systems and organizations	RA	I	I
	Coordinating with community-based and civil society organizations	RA	RI	RI
	Providing diagnostic testing services	RA	RI	I
	Contact tracing activities	RA	RI	I
	Providing quarantine and isolation services	RA	I	I
Conducting immunization campaigns	RA	RI	I	

Vancouver, Canada	Activity	N	S	L
	Financing emergency public health response activities	R	RA	RC
	Mandating business closures		RA	I
	Mandating curfews/lockdowns		RA	I
	Mandating individual behavior changes (e.g., facemasks/social distancing)		RA	I
	Mandating school closures		RA	I
	Suspending routine public services (e.g. transit, sanitation, etc.)		RA	RI
	Conducting data analysis and surveillance activities	R	RA	RI
	Risk communication activities	R	RA	RC
	Maintaining essential health services	C	RA	
	Surging medical care to meet increased demand	C	RA	
	Coordinating with health care systems and organizations		RA	R
	Coordinating with community-based and civil society organizations		RA	RC
	Providing diagnostic testing services		RA	I
	Contact tracing activities		RA	
	Providing quarantine and isolation services	R	RA	
Conducting immunization campaigns		RA	I	

Yangon, Myanmar	Activity	N	S	L
	Financing emergency public health response activities	RC	RA	R
	Mandating business closures	RA	RC	R
	Mandating curfews/lockdowns	RA	RC	
	Mandating individual behavior changes (e.g., facemasks/social distancing)	RA	C	
	Mandating school closures	RA	C	
	Suspending routine public services (e.g. transit, sanitation, etc.)	RA	C	
	Conducting data analysis and surveillance activities	RA	RC	R
	Risk communication activities	RA	RC	R
	Maintaining essential health services	RA	RC	R
	Surging medical care to meet increased demand	RA	RC	R
	Coordinating with health care systems and organizations	RA	RC	R
	Coordinating with community-based and civil society organizations	RA	RC	R
	Providing diagnostic testing services	RA	RC	R
	Contact tracing activities	RA	RC	R
	Providing quarantine and isolation services	RA	RC	R
Conducting immunization campaigns	RA	RC		