Supplement Table S1: Search strategies developed for the literature review on comprehensive vaccine-preventable disease surveillance, by database and search date

Database	Strategy	Records	Records	Records
Medline (OVID) 1946-	(Vaccine preventable ADJ2 disease*) OR (Vaccine preventable ADJ2 infection*) OR (Vaccine preventable ADJ2 illness*) OR (Vaccine preventable ADJ2 illness*) OR VPD* OR cholera OR rubella OR diphtheria OR influenzae OR hepatitis OR human papillomavirus OR influenza OR encephalitis OR measles OR meningococc* OR mumps OR tetanus OR pertussis OR pneumococc* OR polio* OR rotavirus OR rubella OR typhoid OR varicella OR yellow fever	735	78	73
	AND (surveillance ADJ5 (integrat* OR expand* OR expansion OR comprehensive OR link* OR adapt* OR joint OR combine* OR platform)) Limit to 2000 - ; (201911* OR 201912* OR 2020* OR 2021*).dt (202012* OR 2021*).dt			
Embase (OVID) 1996-	(Vaccine preventable ADJ2 disease*) OR (Vaccine preventable ADJ2 infection*) OR (Vaccine preventable ADJ2 illness*) OR (Vaccine preventable ADJ2 illness*) OR VPD* OR cholera OR rubella OR diphtheria OR influenzae OR hepatitis OR human papillomavirus OR influenza OR encephalitis OR measles OR meningococc* OR mumps OR tetanus OR pertussis OR pneumococc* OR polio* OR rotavirus OR rubella OR typhoid OR varicella OR yellow fever AND	798 -484 duplicates =314 unique items	-79 duplicates =59 unique items	-54 duplicates =64 unique items
	(surveillance ADJ5 (integrat* OR expand* OR expansion OR comprehensive OR link* OR adapt* OR joint OR combine* OR platform)) Limit to 2000 -; NOT pubmed/medline; (201911* OR 201912* OR 2020* OR 2021*).dc			
Global Health (OVID) 1973-	(Vaccine preventable ADJ2 disease*) OR (Vaccine preventable ADJ2 infection*) OR (Vaccine preventable ADJ2 illness*) OR VPD* OR cholera OR rubella OR diphtheria	622 -416 duplicates	61 -43 duplicates	53 -27 duplicates

Database	Strategy	Records 11/25/2019	Records 12/17/2020	Records 10/28/2021
	OR influenzae OR hepatitis OR human papillomavirus OR influenza OR encephalitis OR measles OR meningococc* OR mumps OR tetanus OR pertussis OR pneumococc* OR polio* OR rotavirus OR rubella OR typhoid OR varicella OR yellow fever	=206 unique items	=18 unique items	=26 unique items
	AND			
	(surveillance ADJ5 (integrat* OR expand* OR expansion OR comprehensive OR link* OR adapt* OR joint OR combine* OR platform))			
	Limit to 2000 - ; (201911* OR 201912* OR 2020* OR 2021*).dc			
CINAHL (Ebsco)	("Vaccine preventable" N2 disease*) OR ("Vaccine preventable" N2 infection*) OR	25	11	8
	(Vaccine preventable N2 illness*) OR VPD* OR cholera OR rubella OR diphtheria OR influenzae OR hepatitis OR "human	-16 duplicates	-10 duplicates	-2 duplicates
	papillomavirus" OR influenza OR encephalitis OR measles OR meningococcus OR mumps OR tetanus OR pertussis OR pneumococc* OR polio* OR rotavirus OR rubella OR typhoid OR varicella OR "yellow fever"	=9 unique items	=1 unique items	=6 unique items
	AND			
	(surveillance N5 (integrat* OR expand* OR expansion OR comprehensive OR link* OR adapt* OR joint OR combine* OR platform))			
	Limit to 2000 - ; exclude Medline records			
Africa Wide Information (Ebsco)	("Vaccine preventable" N2 disease*) OR ("Vaccine preventable" N2 infection*) OR (Vaccine preventable N2 illness*) OR VPD* OR cholera OR rubella OR diphtheria OR influenzae OR hepatitis OR "human papillomavirus" OR influenza OR encephalitis OR measles OR meningococcus OR mumps OR tetanus OR pertussis OR pneumococc* OR polio* OR rotavirus OR rubella OR typhoid OR varicella OR "yellow	-351 duplicates =234 unique items	0	0
	fever"			

Database	Strategy	Records	Records	Records
_	ANTO	11/25/2019	12/17/2020	10/28/2021
	AND			
	(sumusillance N5 (into anoth OD arroand) OD			
	(surveillance N5 (integrat* OR expand* OR			
	expansion OR comprehensive OR link* OR			
	adapt* OR joint OR combine* OR platform))			
	Limit to 2000 - ;			
Scopus	TITLE-ABS-KEY(("Vaccine preventable"	180	13	22
-	W/2 disease*) OR ("Vaccine preventable"			
	W/2 infection*) OR (Vaccine preventable	-124	-7	-14
	W/2 illness*) OR VPD* OR cholera OR	duplicates	duplicates	duplicates
	rubella OR diphtheria OR influenzae OR	_		
	hepatitis OR "human papillomavirus" OR	=56	=6	=8
	influenza OR encephalitis OR measles OR	unique	unique	unique
	meningococcus OR mumps OR tetanus OR	items	items	items
	pertussis OR pneumococc* OR polio* OR			
	rotavirus OR rubella OR typhoid OR			
	varicella OR "yellow fever") AND TITLE-			
	ABS-KEY((surveillance W/5 integrat*) OR			
	(surveillance W/5 expand*) OR (surveillance			
	W/5 expansion) OR (surveillance W/5			
	comprehensive) OR (surveillance W/5 link*)			
	OR (surveillance W/5 adapt*) OR			
	(surveillance W/5 joint) OR (surveillance			
	W/5 combine*) OR (surveillance W/5			
	platform)) AND NOT INDEX(medline)			
D () 4	Limit to 2000 -;	507	101	172
ProQuest	(((integrat* NEAR/5 surveillance) OR	587	191	173
Central	(surveillance NEAR/5 expand*) OR	117	40	26
	(surveillance NEAR/5 expansion) OR	-117	-48	-36
	(surveillance NEAR/5 comprehensive) OR	duplicates	duplicates	duplicates
	(surveillance NEAR/5 link*) OR	470	1.42	127
	(surveillance NEAR/5 adapt*) OR	=470	=143	=137
	(surveillance NEAR/5 joint) OR	unique	unique	unique
	(surveillance NEAR/5 combine*) OR	items	items	items
	(surveillance NEAR/5 platform)) AND			
	"vaccine preventable")			
	Abstract Available; Limit 2000 -			

Database	Strategy	Records 11/22/2019	Records 12/17/2020	Records 10/28/2021
Medline (OVID) 1946-	(syndromic surveillance OR disease surveillance OR (outbreak ADJ5 surveillance) OR (early warning ADJ5 surveillance) OR (global health security ADJ5 surveillance) OR (epidemic ADJ5 surveillance) OR (public health ADJ5 surveillance) OR (IDSR ADJ5 surveillance) OR (EWAR* ADJ5 surveillance) OR (GHS* ADJ5 surveillance)).ti OR (integrated disease surveillance and response).ti,ab. AND Review.pt Limit 2000-; (201911* OR 201912* OR	186	12	16
Embase (OVID) 1947-	2020* OR 2021*).dt (syndromic surveillance OR disease surveillance OR (outbreak ADJ5 surveillance) OR (early warning ADJ5 surveillance) OR (global health security ADJ5 surveillance) OR (epidemic ADJ5 surveillance) OR (public health ADJ5 surveillance) OR (IDSR ADJ5 surveillance) OR (EWAR* ADJ5 surveillance) OR (GHS* ADJ5 surveillance)).ti OR (integrated disease surveillance and response).ti,ab. AND Review.pt Limit 2000-; (201911* OR 201912* OR 2020* OR 2021*) de	205 -118 duplicates =87 unique items	27 -7 duplicates =20 unique items	29 -14 duplicates =15 unique items
Global Health (OVID) 1973-	2020* OR 2021*).dc (syndromic surveillance OR disease surveillance OR (outbreak ADJ5 surveillance) OR (early warning ADJ5 surveillance) OR (global health security ADJ5 surveillance) OR (epidemic ADJ5 surveillance) OR (public health ADJ5 surveillance) OR (IDSR ADJ5 surveillance) OR (EWAR* ADJ5 surveillance) OR (GHS* ADJ5 surveillance)).ti OR (integrated disease surveillance and response).ti,ab. AND Review.ti	40 -25 duplicates =15 unique items	4 -2 duplicates =2 unique items	9 -2 duplicates = 7 unique items

Database	Strategy	Records 11/22/2019	Records 12/17/2020	Records 10/28/2021
	Limit 2000-; (201911* OR 201912* OR 2020* OR 2021*).up			
CINAHL (Ebsco)	(TI ("syndromic surveillance" OR "disease surveillance" OR (outbreak N5 surveillance) OR ("early warning" N5 surveillance) OR ("global health security" N5 surveillance) OR (epidemic N5 surveillance) OR ("public health" N5 surveillance)) OR ("integrated disease surveillance and response")) OR (AB ("syndromic surveillance" OR "disease surveillance" OR (outbreak N5 surveillance) OR ("early warning" N5 surveillance) OR ("global health security" N5 surveillance) OR (epidemic N5 surveillance) OR ("public health" N5 surveillance) OR (IDSR N5 surveillance) OR (EWAR* N5 surveillance) OR (GHS* N5 surveillance)) OR ("integrated disease surveillance and response"))	19 -1 duplicates =18 unique items	27 -5 duplicates =22 unique items	8 -0 duplicates = 8 unique items
Africa	Limiters - Exclude MEDLINE records; Publication Type: Review; Limit 2000- (TI ("syndromic surveillance" OR "disease	0	0	0
Wide Information	surveillance" OR (outbreak N5 surveillance) OR ("early warning" N5 surveillance) OR ("global health security" N5 surveillance) OR (epidemic N5 surveillance) OR ("public health" N5 surveillance)) OR ("integrated disease surveillance and response")) OR (AB ("syndromic surveillance" OR "disease surveillance" OR (outbreak N5 surveillance) OR ("early warning" N5 surveillance) OR ("global health security" N5 surveillance) OR (epidemic N5 surveillance) OR ("public health" N5 surveillance) OR (IDSR N5 surveillance) OR (EWAR* N5 surveillance) OR (GHS* N5 surveillance)) OR ("integrated disease surveillance and response")) Limiters - Scholarly (Peer Reviewed) Journals; Limit 2000-			
Scopus	(TITLE("syndromic surveillance" OR "disease surveillance" OR (outbreak W/5 surveillance) OR ("early warning" W/5 surveillance) OR ("global health security" W/5 surveillance) OR (epidemic W/5	-7 duplicates	6 -3 duplicates	50 -2 duplicates
	surveillance) OR ("public health" W/5 surveillance) OR (IDSR W/5 surveillance) OR	=35	=3	=48

Database	Strategy	Records	Records	Records
		11/22/2019	12/17/2020	10/28/2021
	(EWAR* W/5 surveillance) OR (GHS* W/5	unique	unique	unique
	surveillance)) OR TITLE-ABS("integrated disease surveillance and response")) AND NOT INDEX(medline) AND NOT INDEX(embase)	items	items	items
	Limit 2000-			

Supplement Table S2: Countries referenced in the articles included (n=87) - literature review on comprehensive vaccine-preventable disease surveillance in the WHO Western Pacific Region, 2010-2021

Number of articles in

	which the country is
Country	referenced
China	16
Vietnam	14
Cambodia	13
Lao PDR	13
Philippines	12
Fiji	9
Mongolia	9
Papua New Guinea	9
Australia	6
Japan	6
Malaysia	6
Chinese Taipei	5
Singapore	5
New Zealand	4
Republic of Korea	4
Solomon Islands	4
Hong Kong	3
Samoa	3
Tuvalu	3
Vanuatu	3
Brunei Darussalam	2
Federated States of Micronesia	2
French Polynesia	2
Macao	2
Marshall Islands	2
Nauru	2
New Caledonia	2
Northern Mariana Islands	2
Palau	2
Tonga	2
Wallis and Futuna	2
American Samoa	1
Cook Islands	1
Guam	1
Kiribati	1
Niue	1
Pitcairn island	1
Tokelau	1
Regional*	13

Global*
*Publications with aggregated regional or global data.

Supplement Table S3: Articles included in the review by selected characteristics (n=87) - literature review on comprehensive vaccine-preventable disease surveillance in the WHO Western Pacific Region, 2010-2021

Title	Type of publication	Place	Type(s) of surveillance	Surveillance support functions integrated	Enabling factors/ effectiveness of integration described
Craig et al. (2018) ¹¹	Published	Solomon Islands, LMIC	Case-based surveillance, nationwide implementation	Governance, Program management, Workforce capacity, Field logistics and communication, Data management and use, Coordination	⊠Enabling factor ⊠Effectiveness
Davgasuren et al. (2019) ¹²	Published	Mongolia, LMIC	Case-based surveillance, nationwide implementation	Governance, Workforce capacity, Field logistics and communication, Data management and use, Coordination	□Enabling factor □Effectiveness
Calain (2007) ¹³	Published	Cambodia, Lao PDR, LMICs	Case-based surveillance, nationwide implementation	Workforce capacity	⊠Enabling factor □Effectiveness
Chretien et al. (2008) ¹⁴	Published	Global, multiple income - levels	Case-based surveillance, nationwide implementation	Workforce capacity, Field logistics and communication, Data management and use	⊠Enabling factor □Effectiveness
May et al. (2009) 15	Published	Chinese Taipei, Vanuatu, Solomon Islands, Samoa, multiple	Case-based surveillance, nationwide implementation	Workforce capacity, Field logistics and communication, Laboratory, Data management and use, Coordination	□Enabling factor ⊠Effectiveness

		income - levels			
Li et al. (2012) ¹⁶	Published	China, UMIC	Case-based surveillance, nationwide implementation	Governance, Laboratory, Data management and use	□Enabling factor ⊠Effectiveness
Clara et al. (2020) 17	Published	Vietnam, LMIC	Event-based surveillance, implementation in 6 provinces	Governance, Supervision	⊠Enabling factor ⊠Effectiveness
Craig et al. (2020) 18	Published	Pacific island countries and territories, multiple income levels	Event-based, case-based surveillance, nationwide implementation	Data management and use	□Enabling factor □Effectiveness
Jayatilleke et al. (2020) 19	Published	Global, LMIC	Aggregate surveillance, nationwide implementation	Data management and use	⊠Enabling factor □Effectiveness
Zurynski et al. (2013) ²⁰	Published	Australia, HIC	Case-based surveillance, nationwide implementation	Workforce capacity, Field Logistics and communication, Laboratory, Coordination	⊠Enabling factor □Effectiveness
Touch et al. (2009) ²¹	Published	Cambodia, LMIC	Case-based surveillance, nationwide implementation	Governance, Workforce capacity, Laboratory, Data management and use	□Enabling factor ⊠Effectiveness
Cambodia National Immunization Program (2015) ²²	Gray	Cambodia, LMIC	Case-based, aggregate surveillance, nationwide implementation	Program management, Workforce capacity, Field Logistics and communication, Supervision, Data management and use	□Enabling factor □Effectiveness
Cambodia National Immunization Program (2017) ²³	Gray	Cambodia, LMIC	Case-based, nationwide implementation	Governance, Workforce capacity, Field Logistics and communication, Data management and use	□Enabling factor □Effectiveness

Touch et al. (2009) ²⁴	Published	Cambodia, LMIC	Case-based, aggregate surveillance, nationwide implementation	Governance, Workforce capacity, Field Logistics and communication, Laboratory	⊠Enabling factor ⊠Effectiveness
Wang et al. (2008) ²⁵	Published	China, UMIC	Case-based, aggregate surveillance, nationwide implementation	Workforce capacity	□Enabling factor □Effectiveness
World Health Organization. (2012) ²⁶	Published	China, UMIC	Case-based, aggregate surveillance, nationwide implementation	Governance, Program management, Workforce capacity, Field Logistics and communication, Laboratory, Data management and use	⊠Enabling factor □Effectiveness
Cavallaro et al. (2015) ²⁷	Published	China, UMIC	Case-based, aggregate surveillance, nationwide implementation	Governance, Workforce capacity, Field Logistics and communication, Laboratory, Supervision	⊠Enabling factor ⊠Effectiveness
Sandhu (2013) ²⁸	Published	China, UMIC	Case-based, aggregate surveillance, nationwide implementation	Workforce capacity, Field Logistics and communication, Laboratory, Data management and use	⊠Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2017) ²⁹	Gray	Fiji, UMIC	Case-based surveillance, single site implementation	Governance, Workforce capacity, Field Logistics and communication, Laboratory, Data management and use	⊠Enabling factor □Effectiveness
Dunne et al. (2016) 30	Published	Fiji, UMIC	Case-based surveillance, single site implementation	Governance, Field Logistics and communication, Laboratory	⊠Enabling factor □Effectiveness

World Health Organization (2019) 31 Rota et al.	Gray Published	Fiji, UMIC Global,	Case-based surveillance, single site implementation Case-based	Workforce capacity, Field Logistics and communication Laboratory	⊠Enabling factor □Effectiveness
(2011) 32		multiple income levels	surveillance, nationwide implementation	,	⊠Enabling factor ⊠Effectiveness
World Health Organization, Western Pacific Regional Office (2017) ³³	Published	Global, multiple income levels	Case-based, aggregate, event-based surveillance, nationwide implementation	Governance, Workforce capacity, Data management and use, Coordination	⊠Enabling factor □Effectiveness
World Health Organization (2000) ³⁴	Published	Global, multiple income levels	Case-based, aggregate surveillance, nationwide implementation	Governance, Workforce capacity, Field Logistics and communication, Laboratory	□Enabling factor □Effectiveness
World Health Organization (2018) 35	Gray	Global, multiple income levels	Case-based surveillance, sentinel sites	Laboratory	☐Enabling factor ☐Effectiveness
World Health Organization, Western Pacific Regional Office. (2019) ³⁶	Gray	Regional (WPR), multiple income levels	Case-based surveillance, nationwide implementation	Laboratory	⊠Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2017) ⁷	Gray	Regional (WPR), multiple income levels	Case-based, aggregate surveillance, nationwide implementation	Data management and use	□Enabling factor □Effectiveness
World Health Organization (2014) ³⁷	Published	Bi-regional (WPR, SEAR), multiple income levels	Case-based surveillance, sentinel sites	Laboratory	□Enabling factor □Effectiveness
World Health Organization (2019) 38	Gray	Global, multiple income levels	Case-based surveillance, sentinel sites	Laboratory	☐Enabling factor ☐Effectiveness
Heffelfinger et al. (2017) ³⁹	Published	Bi-regional (WPR, SEAR), multiple income levels	Case-based surveillance, sentinel sites	Governance	□Enabling factor □Effectiveness
Biellik et al. (2018) 40	Published	Global, multiple income levels	Case-based surveillance,	Governance, Workforce capacity, Data	□Enabling factor

			nationwide implementation	management and use	□Effectiveness
Gavi the Vaccine Alliance (Gavi) (2019) ⁴¹	Gray	Lao PDR, LMIC	Case-based surveillance, nationwide implementation	Workforce capacity, Data management and use	□Enabling factor □Effectiveness
Lao People's Democratic Republic National Centre for Laboratory and Epidemiology. (2013) 42	Gray	Lao PDR, LMIC	Case-based, aggregate, event-based surveillance, nationwide implementation	Governance, Workforce capacity, Supervision	□Enabling factor: □Effectiveness
World Health Organization, UNICEF, GAVI Alliance, Luxembourg Agency for Development Cooperation, and U.S. Centers for Disease Control and Prevention. (2012) 43	Gray	Lao PDR, LMIC	Case-based surveillance, Nationwide implementation	Workforce capacity	□Enabling factor □Effectiveness
Lao People's Democratic Republic Ministry of Health, World Health Organization, and U.S. Centers for Disease Control and Prevention. (2015) 44	Gray	Lao PDR, LMIC	Case-based, event-based surveillance, nationwide implementation	Governance, Program management, Workforce capacity, Field Logistics and communication, Laboratory, Supervision, Data management and use, Coordination	□Enabling factor □Effectiveness
Lao People's Democratic Republic Ministry of Health, World Health Organization, and U.S. Centers for	Gray	Lao PDR, LMIC	Case-based, aggregate, event-based surveillance, Regional implementation	Governance, Workforce capacity, Field Logistics and communication, Laboratory, Supervision, Coordination	□Enabling factor □Effectiveness

		I			
Disease Control and					
Prevention. (2017) ⁴⁵					
World Health Organization, Western Pacific Regional Office. (2019) ⁴⁶	Gray	Lao PDR, LMIC	Case-based, aggregate surveillance, nationwide implementation	Data management and use	□Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2015) ⁴⁷	Gray	Mongolia, LMIC	Case-based surveillance, capital city implementation	Governance, Workforce capacity, Field Logistics and communication, Laboratory	□Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2016) ⁴⁸	Gray	Mongolia, LMIC	Case-based surveillance, nationwide implementation	Workforce capacity, Field Logistics and communication, Laboratory	⊠Enabling factor □Effectiveness
Mongolia Ministry of Health, World Health Organization, UNICEF, and U.S. Centers for Disease Control and Prevention. (2017) ⁴⁹	Gray	Mongolia, LMIC	Case-based surveillance, nationwide implementation	Governance	□Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2015) ⁵⁰	Gray	Philippines, LMIC	Case-based surveillance, nationwide implementation	Field Logistics and communication, Laboratory	⊠Enabling factor □Effectiveness
Republic of the Philippines Department of Health, World Health Organization, and U.S. Centers for Disease Control and Prevention. (2016) ⁵¹	Gray	Philippines, LMIC	Case-based, event-based surveillance, nationwide implementation	Governance, Workforce capacity, Field Logistics and communication, Laboratory, Supervision, Data management and use	⊠Enabling factor ⊠Effectiveness

World Health Organization. (2019) ⁵²	Gray	Philippines, LMIC	Case-based, event-based surveillance, nationwide	Laboratory	□Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2019) ⁵³	Gray	Philippines, LMIC	implementation Case-based, event-based surveillance, nationwide implementation	Governance	□Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2016) ⁵⁴	Gray	PNG, LMIC	Case-based surveillance, implementation in major cities (Port Moresby, Lae)	Laboratory	⊠Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2016) ⁵⁵	Gray	PNG, LMIC	Case-based, aggregate surveillance, national implementation	Governance, Workforce capacity, Laboratory	⊠Enabling factor □Effectiveness
Papua New Guinea National Department of Health, World Health Organization, and U.S. Centers for Disease Control and Prevention. (2017) ⁵⁶	Gray	PNG, LMIC	Case-based surveillance, nationwide implementation	Governance, Program management	□Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2019) ⁵⁷	Gray	PNG, LMIC	Case-based surveillance, nationwide implementation	Governance, Program management, Workforce capacity, Field Logistics and communication, Laboratory, Data management and use, Coordination	⊠Enabling factor ⊠Effectiveness
World Health Organization, Western Pacific Regional Office. (2019) ⁵⁸	Gray	Western Pacific Region, multiple income levels	Case-based surveillance, nationwide implementation	Data management and use	⊠Enabling factor □Effectiveness

World Health Organization, Western Pacific Regional Office. (2018) ⁵⁹	Gray	Western Pacific Region, multiple income levels	Case-based surveillance, nationwide implementation	Laboratory	⊠Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2018) ⁶⁰	Gray	Western Pacific Region, multiple income levels	Case-based surveillance, nationwide implementation	Governance, Laboratory, Supervision, Data management and use	⊠Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2013) ⁶¹	Published	Western Pacific Region, multiple income levels	Case-based surveillance, nationwide implementation	Governance, Workforce capacity, Field Logistics and communication, Laboratory, Data management and use	□Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2020) ⁶²	Gray	Western Pacific Region, multiple income levels	Case-based, aggregate, event-based surveillance, nationwide implementation	Governance, Program management, Workforce capacity, Data management and use	□Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2019) ⁶³	Gray	Western Pacific Region, multiple income levels	Case-based, aggregate surveillance, nationwide implementation	Field Logistics and communication, Data management and use	⊠Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2019) ⁶⁴	Gray	Western Pacific Region, multiple income levels	Case-based, aggregate surveillance, nationwide implementation	Field Logistics and communication, Laboratory	⊠Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2019) ⁶⁵	Gray	Western Pacific Region, multiple income levels	Case-based, aggregate surveillance, nationwide implementation	Workforce capacity, Field logistics and communication, Laboratory	□Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2019) ⁶⁶	Gray	Western Pacific Region, multiple income levels	Case-based, aggregate surveillance, nationwide implementation	Governance, Field Logistics and communication, Laboratory, Data management and use	⊠Enabling factor ⊠Effectiveness

World Health Organization, Western Pacific Regional Office. (2013) ⁶⁷	Gray	Australia, Brunei Darussalam, Cambodia, China, Fiji, Hong Kong, Japan, Lao PDR, Malaysia, Mongolia, New Zealand, PNG, Philippines, Republic of Korea, Singapore, Vietnam, multiple income levels	Case-based surveillance, nationwide implementation	Laboratory	□Enabling factor ⊠Effectiveness
World Health Organization, Western Pacific Regional Office. (2019) ⁶⁸	Gray	Australia, Brunei Darussalam, Hong Kong, Macao, Japan, Malaysia, New Zealand, Philippines, PNG, South Korea, Singapore, Pacific Island Countries, Vietnam, Lao PDR, Mongolia, China, Cambodia, multiple income levels	Case-based surveillance, nationwide implementation	Field Logistics and communication, Data management and use	□Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2019) ⁶⁹	Gray	Cambodia, Lao PDR, Mongolia, Vietnam, Fiji, Philippines, Cambodia, Macao, Hong Kong, Australia, PNG, Japan,	Case-based surveillance, nationwide implementation	Data management and use	□Enabling factor □Effectiveness

		multiple income levels			
World Health Organization, Western Pacific Regional Office. (2015) ⁷⁰	Gray	China, Mongolia, Vietnam, Philippines, Fiji, Cambodia, Lao PDR, PNG, multiple income levels	Case-based surveillance, nationwide implementation	Governance, Field Logistics and communication	⊠Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2011) ⁷¹	Gray	Mongolia, PNG, Philippines, Vietnam, multiple income levels	Case-based surveillance, nationwide implementation	Governance, Program management, Field Logistics and communication, Laboratory, Data management and use	⊠Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2018) ⁷²	Gray	Western Pacific Region, multiple income levels	Case-based surveillance, nationwide implementation	Program management, Workforce capacity, Field Logistics and communication, Data management and use, Coordination	□Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2019) ⁷³	Gray	Western Pacific Region, multiple income levels	Case-based surveillance, nationwide implementation	Laboratory	⊠Enabling factor □Effectiveness
White et al. (2017) ⁷⁴	Published	Samoa, UMIC	Case-based surveillance, nationwide implementation	Workforce capacity, Field logistics and communication, Laboratory, Data management and use	□Enabling factor □Effectiveness
Chua et al. (2015) ⁷⁵	Published	Singapore, HIC	Case-based surveillance, nationwide implementation	Workforce capacity, Laboratory, Data management and use	□Enabling factor □Effectiveness

Lau et al. (2018) ⁷⁶ Jian et al. (2017) ⁷⁷	Published Published	Singapore, HIC Chinese Taipei, HIC	Case-based surveillance, single-site implementation Case-based, event-based surveillance, nationwide implementation	Workforce capacity, Laboratory Governance, Workforce capacity, Data management and use	□Enabling factor □Effectiveness □Enabling factor □Effectiveness
Nelesone et al. (2006) ⁷⁸	Published	Tuvalu, UMIC	Case-based surveillance, nationwide implementation	Governance, Workforce capacity, Field logistics and communication, Data management and use	□Enabling factor ⊠Effectiveness
Alroy et al. (2018) ⁷⁹	Published	Vietnam, LMIC	Case-based surveillance, national implementation	Governance, Workforce capacity, Laboratory, Data management and use	⊠Enabling factor ⊠Effectiveness
Vietnam National Institute of Hygiene and Epidemiology, World Health Organization, UNICEF, and U.S. Centers for Disease Control and Prevention. (2017) 80	Gray	Vietnam, LMIC	Case-based surveillance, nationwide implementation	Governance, Workforce capacity, Supervision, Coordination	□Enabling factor □Effectiveness
World Health Organization, Western Pacific Regional Office. (2019) ⁸¹	Published	Vietnam, LMIC	Case-based surveillance, nationwide implementation	Workforce capacity, Data management and use	⊠Enabling factor ⊠Effectiveness
World Health Organization, Western Pacific Regional Office. (2015) ⁸²	Gray	Vietnam, LMIC	Case-based surveillance, nationwide implementation	Field logistics and communication, Laboratory	□Enabling factor □Effectiveness
Taniguchi et al. (2007) 83	Published	Japan, HIC	Case-based surveillance,	Governance, Workforce capacity, Field	□Enabling factor □Effectiveness

			nationwide	logistics and	
Hyde et al. (2013) ⁸⁴	Published	Global, multiple income -	implementation Case-based surveillance, nationwide	Governance	⊠Enabling factor
		levels	implementation		⊠Effectiveness
Phalkey et al. (2017) 85	Published	Philippines, Vietnam, Malaysia, China, multiple income levels	Case-based surveillance, nationwide implementation	Governance	□Enabling factor □Effectiveness
Shu et al. (2019) ⁸⁶	Published	China, UMIC	Case-based surveillance, nationwide implementation	Governance, Program management, Workforce capacity, Field logistics and communication, Laboratory, Data management and use, Coordination	⊠Enabling factor □Effectiveness
Anh et al. (2020) 87	Published	Vietnam, LMIC	Aggregate surveillance, nationwide implementation	Governance, Laboratory	⊠Enabling factor □Effectiveness
Hsih et al. (2020) 88	Published	Chinese Taipei, HIC	Case-based surveillance, nationwide implementation	Laboratory	□Enabling factor □Effectiveness
Ma et al (2019) ⁸⁹	Published	China, UMIC	Case-based surveillance, nationwide implementation	Data management and use	□Enabling factor □Effectiveness
El Guerche- Séblain et al (2021) 90	Published	Australia, China, Malaysia, multiple income levels	Case-based surveillance, nationwide implementation	Governance, Workforce capacity, Field logistics and communication, Laboratory, Data management and use, Coordination	□Enabling factor □Effectiveness
Qin et al (2010) ⁹¹	Published	China, UMIC	Case-based surveillance, single facility	Laboratory	□Enabling factor □Effectiveness
Manalili et al (2020) 92	Published	Philippines, LMIC	Case-based surveillance,	Governance, Workforce	□Enabling factor

			nationwide implementation	capacity, Field logistics and communication, Laboratory, Data management and use	□Effectiveness
Aye et al (2020) 93	Published	Malaysia, Cambodia, South Korea, Australia, New Zealand, Japan, China, Philippines, Singapore, Vietnam, Chinese Taipei, multiple income levels	Case-based surveillance, nationwide implementation	Governance, Program management, Workforce capacity, Laboratory	□Enabling factor □Effectiveness
Quinn et al (2021) 94	Published	China, Fiji, Chinese Taipei, multiple income levels	Case-based surveillance, nationwide implementation	Field logistics and communication	□Enabling factor □Effectiveness
Gonzalez-Silva et al (2021) 95	Published	Global, multiple income levels	Case-based surveillance, nationwide implementation	Governance, Workforce capacity, Field logistics and communication, Laboratory, Data management and use, Coordination	□Enabling factor □Effectiveness
Chan et al (2021) 96	Published	Cambodia, Laos, Vietnam, LMIC	Case-based surveillance, nationwide implementation	Laboratory	□Enabling factor □Effectiveness

Definitions: LIC, Low Income Country; LMIC, Lower-Middle Income Country; UMIC, Upper-Middle Income Country; HIC, High Income Country; PNG: Papua New Guinea; US-CDC: U.S. Centers for Disease Control and Prevention; WHO: World Health Organization; WPRO: Western Pacific Regional Office