

Table S1. Low and Middle Income Countries of the Americas and Asia That Include Meningococcal Vaccines Within Their National Immunization Program [24]

Country	Vaccine	Schedule	Comments
The Americas			
Argentina	MenACWY conjugate	3, 5, 15 mo of age 11 y of age	
Bahamas	MenACWY conjugate	First contact	College students
Brazil	MenC conjugate	3, 5 mo of age 12 mo–4 y of age 11–14 y of age	
Chile	MenACWY conjugate	1 y of age	
Colombia	MenACWY conjugate	2, 4, 6 mo of age	Only in case of outbreak
Cuba	MenBC	3, 5 mo of age	
Guyana	MenACWY conjugate	First contact	For travelers
Panama	MenACWY conjugate	1 y of age	For outbreak response
Paraguay	MenACWY conjugate	First contact	For at-risk groups
Suriname	MenACWY conjugate	First contact	For travelers
Trinidad and Tobago	MenACWY conjugate	First contact	Travelers to high-risk areas; individuals with sickle cell disease
Venezuela	MenBC	First contact, >2 mo	For outbreaks and at-risk groups

Asia

China	MenA polysaccharide	6, 9 mo of age	
	MenAC polysaccharide		
Malaysia	MenACWY conjugate		Hajj pilgrims only
Maldives	MenACWY conjugate	≥15 y of age	For travelers
Marshall Islands	MenC conjugate	11–12 y	Students

Men=meningococcal serogroup.

Current as of May 29, 2019.

Table S2. Summary of Source and Methodology to Determine Carriage in Low and Middle Income Countries of the Americas

Reference	Source	Methodology
Brazil		
Nunes et al. 2016 [33]	Posterior pharyngeal wall	- Swabs were sent to the laboratory within 4 h after swabbing and stored at -80°C until analysis. - For analysis, plates were incubated at $37^{\circ}\text{C} + 5\% \text{CO}_2$ for 24 ± 48 h.
Moura et al. 2017 [34]	behind uvula	Colonies with characteristics of <i>Neisseria</i> species were subcultured on blood agar medium for species identification (ie, via Gram staining, oxidase reaction, and carbohydrate utilization tests).
Cassio de Moraes et al. 2015 [35]	Oropharynx	- Swabs were sent to the laboratory within 4–5 h after swabbing. - For analysis, swabs inoculated in STGG were plated and incubated for 24 and 48 h at $37^{\circ}\text{C} + 5\% \text{CO}_2$. - For identification, meningococcus-like colonies were subcultured on blood agar medium to species identification by Gram staining, oxidase reaction, and carbohydrate utilization tests.
Weckx et al. 2017 [36]	Posterior pharyngeal wall	- Swabs were sent to the laboratory at 20°C–26°C within 5 h of swabbing. - For analysis, samples were inoculated and latex agglutination was used for species identification.

Coch Gioia et al. 2015 [37]	Posterior oropharyngeal area	▪ Swabs were plated immediately after collection and incubated for 48 h at 37°C + 5% CO₂. ▪ Suspected <i>N meningitidis</i> colonies were identified by biochemical tests.
Safadi et al. 2014 [38]	Oropharynx	▪ Samples were sent to the laboratory within 4–5 h of collection, where they were stored until use. ▪ For analysis, samples were inoculated for 24–48 h at 37°C + 5% CO₂. ▪ For identification, suspected <i>N meningitidis</i> colonies were subcultured on blood agar medium for species identification.
Barroso 1999 [39]	Throat	NS
Chile		
Rubilar et al. 2018 [40]		▪ As described by Diaz et al. 2016 [42]
Diaz et al. 2016 [42]	Posterior pharynx	▪ Samples were sent to the laboratory within 4 h of collection. ▪ Samples were inoculated and incubated for 48 h at 35°C + 5% CO₂.

- Gram staining was performed locally for isolates grown in Thayer Martin agar, and Gram-negative species were assessed at the reference laboratory; identification of presumptive *N meningitidis* was by carbohydrate utilization testing.

Rodriguez
et al. 2014
[41]

Posterior pharynx
and tonsils

- Samples were sent to the laboratory within 5 h of collection.
- Samples were inoculated and incubated for 24–48 h at 37°C + 5% CO₂.
- Colonies were identified by standard methods.

Colombia

Moreno et
al. 2015
[43]

Posterior
oropharyngeal wall

- Samples were sent to the laboratory within 4 h of collection.
- Samples were inoculated and incubated for 72 h at 37°C + 5% CO₂.
- Following morphologic evaluation of colonies, 1 subcultured colony was identified by standard methods (eg, colony morphology, Gram staining, oxidase).

Cuba

Climent et
al. 2010
[32]

Posterior
nasopharynx and
larynx

- Samples were immediately inoculated and transferred in a 37°C incubator within 2 h of collection.
- Samples were incubated at 37°C + 5% CO₂ and readings were taken at 24 and 48 h.
- Bacterial taxonomic identification was performed by standard methods.

Mexico

- Espinosa de los Monteros et al. 2009 [44]
- Nasopharynx
- Swabs were inserted into Aimes transport medium and sent to the laboratory.
 - Samples were inoculated and incubated for 24 h at 37°C + 5% CO₂.
 - Colonies with typical *Neisseria* morphology were chosen based on colony and microscopic morphology characteristics, as well as the differential tests to identify *N meningitidis*.

- Paraguay** Chamorro et al. 2019 [45]
- Oropharyngeal
- Samples were inserted into AMIES medium with activated charcoal and sent to the laboratory at room temperature.
 - Samples were processed within 4 h of collection.
 - Swabs were incubated at 35°C + 5% CO₂ for up to 72 h.

NS=not specified; STGG=skim milk–tryptone–glucose–glycerol transport medium.

Table S3. Summary of Source and Methodology to Determine Carriage in Low and Middle Income Countries of Asia

Reference	Source	Methodology
China		
Zhang et al. 2013 [53]	Pharynx	Swabs were inoculated onto plates and transferred to CO₂ incubator.
Zhou et al. 2012 [51]	Throat	Identification was by Gram stain, oxidase reaction, and standard biochemical tests.
India		
Jha et al. 1995 [54]	Throat	- Swabs were inoculated and immediately transferred to the laboratory for 24-h incubation at 37°C. - Identification was by standard methods.
Ichhpujani et al. 1990 [55]	Nasopharynx	- Swabs were immediately inoculated and incubated for 18–24 h at 37°C. - Identification was by standard methods (ie, Gram staining, oxidase test, biochemical test).
Paul et al. 1987 [56]	Posterior nasopharynx	- Swabs were transported to the laboratory within 1–2 h of collection. - Inoculated samples were incubated for 24–48 h at 37°C + 5%–10% CO₂. - Identification was by Gram staining, oxidase test, and biochemical tests on serum sugars.

Malaysia

- Rohani et al. 2007 [57] Throat and anterior nasal
- Samples were inoculated directly onto modified Thayer Martin medium and transferred to the laboratory in a reduced-oxygen container.
- Identification was by standard methods (ie, Gram stain, oxidase and aminopeptidase activity, and carbohydrate degradation tests).

Nepal

- Thapa et al. 2017 [58] Posterior pharyngeal wall and tonsils
- Samples were inoculated on the same day as collection.
 - Inoculation was conducted overnight at 37°C + 5%–10% CO₂.
 - Identification was by examination for type of growth.

Philippines

- Gonzales et al. 2017 [48] Tonsils and posterior pharyngeal wall posterior to the uvula
- Samples were immediately plated and incubated at 35°C + 3%–7% CO₂.
 - Plates were examined at 24 and 72 h after inoculation for *Neisseria meningitidis*-suspected colonies; Gram stain was performed.

Thailand

Danchaivijitr	Throat	▪ Samples were immediately inoculated, kept in candle jars, and transferred to the laboratory.
et al. 1988		▪ Inoculated samples were incubated for 16–18 h at 37°C.
[59]		▪ Identification was based on colony morphology, Gram staining, oxidase testing, and sugar fermentation.
