

Appendices for Frontline health workers in COVID-19 prevention and control: rapid evidence synthesis

This document is an appendix to the following report:

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Appendix 1 – Search Strategy

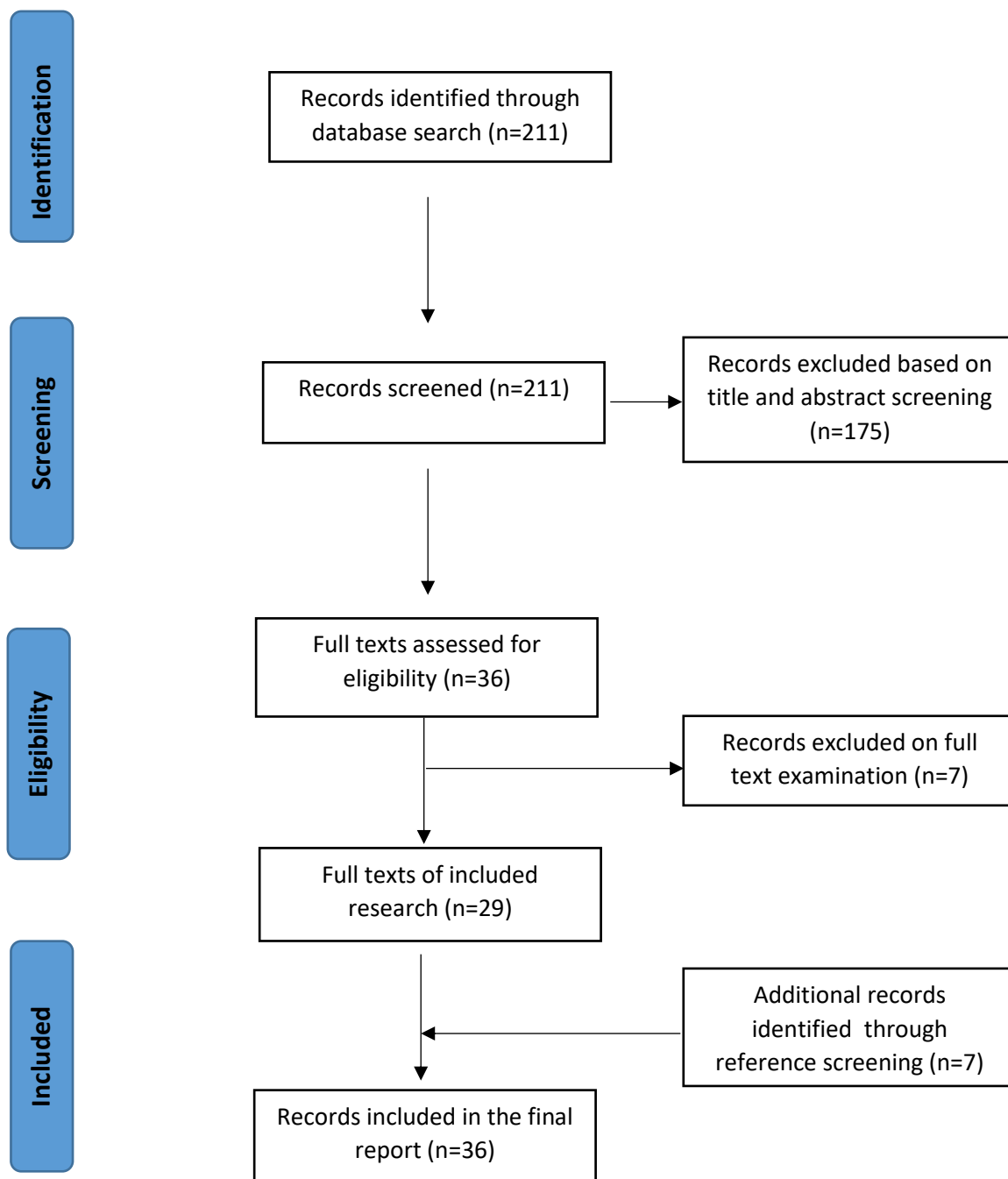
PubMed – All recent pandemics, including COVID-19

No.	Search terms	No. of hits
#1	“community health worker*”[tw] OR “lay health worker”[tw] OR “lay health workers”[tw] OR “frontline health workers”[tw] OR “close-to-community providers”[tw] OR “frontline health providers”[tw] OR “CHW”[tw] OR “CHWs”[tw] OR “LHW”[tw] OR “LHWs”[tw] OR “lady health workers”[tw] OR “rural health worker*”[tw] OR “accredited social health activist”[tw] OR “ASHA worker”[tw] OR “ASHA workers”[tw] OR “community surveillance volunteer*”[tw] OR “female multipurpose health worker*”[tw] OR “community case management worker*”[tw] OR “health extension worker*”[tw] OR “outreach worker”[tw] OR “health extension worker*”[tw] OR “community health agent*”[tw] OR “community health aide”[tw] OR “community health aides”[tw] OR “village health worker”[tw] OR “village health workers”[tw] OR “health auxiliary”[tw] OR “health auxiliaries”[tw] OR “barefoot doctor”[tw] OR “community health practitioner”[tw] OR “community health practitioners”[tw] OR “lay health advisor”[tw] OR “lay health advisors”[tw] OR “lay health promoter”[tw] OR “lay health promoters”[tw] OR “community worker”[tw] OR “community workers”[tw]	4551
#2	((“2019-nCoV” OR “2019nCoV” OR “COVID-19” OR “SARS-CoV-2” OR “SARS-2” OR (wuhan AND coronavirus))) OR (“COVID-19”[Supplementary Concept] OR “severe acute respiratory syndrome coronavirus 2”[Supplementary Concept])) OR “Wuhan seafood market pneumonia virus”	1429
#3	Hemorrhagic Fever, Ebola[MH] OR Ebola[tw] OR SARS[tw] OR coronavirus[tw] OR “severe acute respiratory syndrome” [tw] OR “SARS Virus”[MH] OR “SARS Virus”[tw] OR “SARS-CoV”[tw] OR “SARS-Associated Coronavirus”[tw] OR “sudden acute respiratory syndrome”[tw] OR “swine flu”[tw] OR “swine influenza”[tw] OR “HIN1”[tw] OR “Middle East respiratory syndrome coronavirus”[tw] OR “MERS-CoV”[tw] OR pandemic[tw] OR pandemics[tw] OR “disease outbreak”[tw] OR “disease outbreaks”[tw] OR outbreak[tw] OR “outbreaks”[tw] OR epidemic[tw] OR epidemics[tw]	240235
#4	#2 OR #3	240473
#5	#1 AND #4	211

Appendix 2 – List of organisations, other resource databases and unpublished resource articles that were hand searched

Organisation and Weblink
1. European CDC: www.ecdc.europa.eu
2. Africa CDC www.africacdc.org
3. China CDC www.chinacdc.cn
4. World health Organization www.who.int
5. CDC Atlanta www.cdc.gov
6. Ministry of health and family welfare www.mohfw.gov.in
7. Ministry of health Singapore www.moh.gov.sg
8. National Institute of Communicable Disease www.nicd.ac.za
9. Australian Government Department of Health www.health.gov.au
10. U.S. Department of Labor Occupational Safety and Health Administration www.osha.gov
11. Public health England www.gov.uk
12. Centre for health protection. Department of health the Government of the Hong Kong special administration region https://www.chp.gov.hk/files/pdf/ic_advice_for_nid_in_healthcare_setting.pdf
13. New England Journal of Medicine https://www.nejm.org/coronavirus
14. Wiley Online Library https://novel-coronavirus.onlinelibrary.wiley.com/
15. Elsevier https://www.elsevier.com/connect/coronavirus-information-center
16. medRxiv and bioRxiv http://connect.medrxiv.org/relate/content/181
17. Oxford Academic https://academic.oup.com/journals/pages/coronavirus
18. JAMA Network https://jamanetwork.com/journals/jama/pages/coronavirus-alert

Appendix 3 - PRISMA Flow Chart



Search Results and Study Selection

A search in PubMed database was conducted on 21 March 2020. The search identified a total of 211 studies, with zero duplicates (Figure 1 – PRISMA flow chart). The lead reviewers selected potentially relevant studies for full text examination eligibility by scanning the titles and abstracts. Full text articles were obtained for 36 potentially relevant studies and were reviewed in detail for relevance based on the inclusion and exclusion criteria. Any disagreements were resolved by discussion. Seven records were excluded on detailed full text examination, with 29 studies to be included in the report. An additional step was conducted that included reference screening of the 29 included studies. Ten

potentially relevant studies and reports were identified; however, three records were excluded based on the inclusion and exclusion criteria. In total, 36 studies were included in the final report. Relevant data was extracted from included studies; however, data extraction was not done in duplicate.

Appendix 4 – Data extraction from included studies

Data extraction sheet is available online [here](#)

Appendix 5 – Inventory of relevant guidelines on COVID-19/pandemic control and response relevant to frontline health workers

No.	Title of the document	Publisher and Country of origin	Notes
1.	Responding to community spread of COVID-19	WHO, Global	Provides comprehensive guidance on response to community spread of COVID-19. Includes links and references to resources for various other aspects of COVID response.
2.	Interim Guidance for Public Health Personnel Evaluating Persons Under Investigation (PUIs) and Asymptomatic Close Contacts of Confirmed Cases at Their Home or Non-Home Residential Settings	CDC, USA	Provides guidance on infection prevention and control practices when risk assessment and public health management of persons with potential COVID-19 is performed at a home or non-home residential settings
3.	Guidance for Healthcare Worker Self-Monitoring and Work Restriction: In the Presence of Sustained Community Transmission of Coronavirus Disease 2019	CDC, USA	Guidance for health workers on how to self-monitor themselves during community spread of a pandemic
4.	Mental Health and Psychosocial Considerations During COVID-19 Outbreak	WHO, Global	Focuses on mental health of healthcare workers while responding to COVID distress
5.	Pandemic Influenza Preparedness and Response Guidelines for Healthcare Workers and Healthcare Employers	Occupational Safety and Health Administration, USA	Pages 15-16: Infection control precautions for healthcare workers, work practices, personal protective equipment
6.	What Healthcare Workers Should Know	Africa CDC, Africa (African Union)	Provides details on precautions a health care worker should take to protect themselves which is generic

			in nature and may be used as an instruction guide for CHWs.
7.	Risk assessment and management of exposure of health care workers in the context of COVID-19	WHO, Global	Aids in risk assessment for HCWs after exposure and provides recommendations for their management. Provides recommendations for health workers at low risk for COVID-19 (Page-6) which might be useful in the context of CHWs.
8.	Public health management of persons, including health care workers having had contact with COVID-19 cases in the European Union	European CDC, Europe	This document provide guidance for EU/EEA public health authorities on the management of persons, including healthcare workers, who had contact with COVID-19 cases. May be applicable for community health workers (low risk exposure: page 2).
9.	Protect Your Patients and Staff from COVID-19: CDC's Recommended Infection Control Procedures	CDC, USA	Recommendation on infection control and protecting patients and staffs. The staff comprises of health workers, but the additional recommendations could be contextual to the CHWs as well.
10.	Implementation of Mitigation Strategies for Communities with Local COVID-19 Transmission	CDC, USA	Pages 8-9: Mitigation strategies and activities according to level of community transmission or impact of COVID-19 by setting.
11.	Australian Health Management Plan for Pandemic Influenza	Department of Health, Australia	PPE for health workers, public health officials and other workers which includes CHWs in direct contact with infected (symptomatic) individuals. Protecting healthcare workers by pre-exposure prophylaxis
12.	Interim Summary Guidelines for Clinical Management of Patients with COVID 19	MRI, Sri Lanka	Instructions for HCWs
13.	Community case management during an influenza outbreak. A Training package for community health workers	WHO, Global	Role of the CHW during an influenza outbreak and conduct community education activities and deliver appropriate messages specific to prevention and control of an influenza outbreak.

CDC – Centres for Disease Control and Prevention, WHO – World Health Organization, MRI – Medical Research Institute

Appendix 6 – Inventory of other relevant resources and articles on COVID-19/Pandemic control and response relevant to frontline health workers

No	Document title	<u>Document weblink</u>	<u>Notes</u>
1.	COVID-19: protecting health-care workers	https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30644-9/fulltext	Adequate provision of PPE is just the first step; other practical measures must be considered, including cancelling non-essential events to prioritise resources; provision of food, rest, and family support; and psychological support. Presently, health-care workers are every country’s most valuable resource
2.	Protecting Health Care Workers during the COVID-19 Coronavirus Outbreak –Lessons from Taiwan's SARS response	https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciaa255/5804239?searchresult=1	Recommends implementing Traffic Control Bundling (TCB) – a tool that proved effective in dramatically reducing infection rates among HCWs in Taiwan during the SARS outbreak. The essence of TCB involves: Triage outside of hospitals (in tents or other shelters) – ensuring patients are triaged in outdoor screening stations to ensure ill patients are directed to a contamination zone, and; Zones of Risk – clearly delineating separate zones, including a contamination, transition, and clean zone each separated by checkpoints
3.	Occupational risks for COVID-19 infection	https://academic.oup.com/ocmed/article/70/1/3/5763894?searchresult=1	All health personnel should be alert to the risk of COVID-19 in a wide variety of occupations, and not only HCWs. These occupational groups can be protected by good infection control practices. These at-risk groups should also be given adequate social and mental health support.
4.	Healthcare Personnel Preparedness Checklist for COVID-19	https://www.cdc.gov/coronavirus/2019-ncov/hcp/hcp-personnel-checklist.html	Front-line healthcare personnel in the United States should be prepared to

			evaluate patients for coronavirus disease 2019 (COVID-19). The document provides a checklist highlighting key steps for healthcare personnel in preparation for transport and arrival of patients with confirmed or possible COVID-19
5.	What healthcare personnel should know about caring for patients with confirmed or possible coronavirus disease 2019 (COVID-19)	https://www.cdc.gov/coronavirus/2019-ncov/hcp/caring-for-patients-H.pdf	Healthcare personnel caring for patients with confirmed or possible COVID-19 should adhere to CDC recommendations for infection prevention and control (IPC):
6.	Healthcare Professionals: Frequently Asked Questions and Answers	https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html	CDC currently recommends a cautious approach to persons under investigation (PUI) for COVID-19. Healthcare personnel evaluating PUI or providing care for patients with confirmed COVID-19 should use, Standard Transmission-based Precautions.
7.	CDC Statement for Healthcare Personnel on Hand Hygiene during the Response to the International Emergence of COVID-19	https://www.cdc.gov/coronavirus/2019-ncov/infection-control/hcp-hand-sanitizer.html	CDC recommends the use of alcohol-based hand sanitizers with greater than 60% ethanol or 70% isopropanol as the preferred form of hand hygiene in healthcare settings, based upon greater access to hand sanitizer.
8.	Emergency Responders: Tips for taking care of yourself	https://emergency.cdc.gov/coping/responders.asp	People with pre existing mental health conditions should continue with their treatment plans during an emergency and monitor for any new symptoms.
9.	MOH Pandemic Readiness and Response Plan for Influenza and other Acute Respiratory Diseases	https://www.moh.gov.sg/docs/librariesprovider5/diseases-updates/interim-pandemic-plan-public-ver- april-2014.pdf	Front-line HCWs working at the restructured hospitals, polyclinics and participating primary care clinics may be given antiviral prophylaxis to protect them during the peak of the epidemic.
10.	Healthcare Workers Handbook on Influenza	http://www.nicd.ac.za/assets/files/Healthcare%20Workers%20Handbook%20on%20influe	Page-17. IPC precautions when caring for patients with suspected, probable, or

		nza%20in%20SA %205%20May%202015.pdf	confirmed infection with influenza viruses, or ILI include precautions while working in direct contact with patients, Standard and Droplet should be applied.
11	Guidance for Healthcare Worker Self-Monitoring and Work Restriction In the Presence of Sustained Community Transmission of Coronavirus Disease 2019 (COVID-19)	https://www1.nyc.gov/assets/doh/downloads/pdf/han/alert/2020/covid-19-healthcare-worker-monitoring-restrictions.pdf	Page 1-2. ALL healthcare workers should self-monitor for illness consistent with COVID-19 because all healthcare workers are at risk for unrecognized exposures. healthcare worker who has had a known high-risk exposure to a patient(s) with confirmed COVID-19, should take extra care to monitor your health but can keep working. There is no requirement for 14 day quarantine of healthcare workers with high-risk exposures in the setting of sustained community transmission.

Appendix 7 – Inventory of self-isolation guidelines in relation to COVID-19 control and response relevant to frontline health workers

No.	Document title	Document weblink	Country	Organisation/ Publisher	Notes
1.	Information for people who are self-isolating due to contact with a case of COVID-19 or travel to an affected area	http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%201%20-%20CDC/COVID19-Self-isolation-for-contacts-travellers.pdf	Canada	BC Centre for Disease Control	Clear instructions on self instruction especially for inbound travellers
2.	Home isolation guidance when unwell (suspected or confirmed cases)	https://www.health.gov.au/sites/default/files/documents/2020/03/coronavirus-covid-19-information-about-home-isolation-when-unwell-suspected-or-confirmed-cases.pdf	Australia	Department of Health	Very basic guidelines on who should be isolated ONLY in case of suspected/confirmed cases
3.	COVID-19 – Self-isolation	https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-novel-coronavirus-health-advice-general-public/covid-19-self-isolation	New Zealand	Ministry of Health	self isolation/precaution guidelines for inbound travellers
4.	Know the Difference : Self-monitoring, self-isolation, and isolation for COVID-19	https://www.canada.ca/en/public-health/services/publications/diseases-conditions/self-monitoring-self-isolation-isolation-for-covid-19.html	Canada	Government of Canada	basic difference and instruction when to self-monitor/self isolate/get isolated
5.	Patient information sheet for self-isolation at home	https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/selfisolationathome/Patient%20information%20sheet%20for%20self-%20isolation%20%20V.%202.2.pdf	Ireland	Health Protection Surveillance Centre	This is detailed with clear instructions for self-isolated suspected/confirmed people
6.	Healthcare Worker COVID-19 Close Contact Information Leaflet	https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/occupationalhealthguidance/Healthcare%20Worker%20COVID-	Ireland	Health Protection Surveillance Centre	Quarantine order for possible COVID-19 cases because of contact

		19%20Close%20Contact%20Information%20Leaflet v6.0.pdf			
7.	Guidelines for home quarantine	https://www.mohfw.gov.in/DraftGuidelinesforhomequarantine.pdf	India	MoHFW, Gol	Clear instructions for suspected quarantined people
8.	Interim Guidelines for Home Quarantine	https://www.doh.gov.ph/sites/default/files/health-update/DM-Interim%20Guidelines%20for%20Home%20Quarantine.pdf	Philippines	Department of Health	
9.	National Action Plan for corona virus disease (COVID-19), Pakistan	https://www.nih.org.pk/wp-content/uploads/2020/03/COVID-19-NAP-V2-13-March-2020.pdf?_cf_chl_jschl_tk_=ca4c6567df2dce8335a273ba68190e60a091c76d-1584909529-0-Af8IMEQhiEAS4n_tw5RVaf1UEgaQIb3P_LwVo--Zh-xb4fXn6AtUAVFro8vvy5J10cV3TRFmz5Qv8Ztbsu4Z4kLVHvhII15uNTDveBbG-HEWals9p2NK_-HrGrN7aucz240Qihgga0jUn6ajem8xebLTzpOegFfRfKC2Z7nIPNMuHSchE2KZqym282IC_C9u1LppZxsd9UNMNKfaiHDshqD6T4tUh3Gz2ewBr5C9LaktaobKoKRS3-aSNlpe9i-9qYNjEPt0dksL5C6B9IYWRH8kZTk7kAY4ig0dtNnaYCrqhRBG--920H5HoETGUyqN7hV4mrlaLJKpZJseSwjp-9JULkns6WMX7N_IhPBmGT8	Pakistan	Ministry of National Health Services	Annexures are useful. Guidelines on self-quarantine/mitigation from a neighbour
10.	Guideline for the Home quarantine / Quarantine in non-health care settings	http://www.epid.gov.lk/web/images/pdf/Circulars/Corona_virus/guidelines-ofhome-quarantine.pdf	Sri Lanka	Epidemiological Unit- MoH	

Appendix 8 – Inventory of IEC materials in relation to COVID-19 control and response produced by different organisations/authorities worldwide

No.	Title	Title weblink	Country	Issuing authority	Notes
COVID-19 details-Symptoms and transmissions					
1.	Coronavirus Disease 2019 (COVID-19) Outbreaks in Residential Care Facilities	https://www.health.gov.au/sites/default/files/documents/2020/03/coronavirus-covid-19-guidelines-for-outbreaks-in-residential-care-facilities.pdf	Australia	Department of Health	Page 7-8 is highlighted. It has good information on what is COVID and transmission etc.
2.	COVID 19 FAQs	https://www.doh.gov.ph/COVID-19/FAQs	Philippines	Department of Health	
Which people are at higher risk of getting infected?					
3.	Are You at Higher Risk for Severe Illness?	https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/high-risk-complications.html	USA	CDC	Advisory for high risk groups: aged, pregnant, asthma, HIV
4.	Coronavirus disease 2019 (COVID-19) Situation Report – 51	https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200311-sitrep-51-covid-19.pdf?sfvrsn=1ba62e57_4	NA	WHO	Page 2: risk communication guidance for high risk group
5.	COVID-19 PUBLIC HEALTH GUIDANCE Self-Isolation for Older Adults and Those Who Have Elevated Risk	https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/Self_Isolation_Guidance_03.16.20.pdf	USA	California Department of PH	Very detailed guidance for high risk groups
Myth VS reality for COVID 19					
6.	Coronavirus disease (COVID-19) advice for the public: Myth busters	https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters	NA	WHO	WHO myth vs reality
7.	SHARE FACTS ABOUT COVID-19	https://www.cdc.gov/coronavirus/2019-ncov/about/share-facts-h.pdf	USA	CDC	Few facts on COVID
8.	10 WhatsApp forwards you should not forward	https://www.ha-asia.com/10-whatsapp-forwards-you-should-not-forward/			Misleading social media communications

Key Messages to spread in the community for prevention of COVID 19					
9.	Steps to help prevent the spread of COVID-19 if you are sick	https://www.cdc.gov/coronavirus/2019-ncov/downloads/sick-with-2019-nCoV-fact-sheet.pdf	USA	CDC	Guidelines for suspected COVID
10.	Guidelines on Prevention of Coronavirus Disease 2019 (COVID-19) for the General Public	https://www.chp.gov.hk/files/pdf/nid_guideline_general_public_en.pdf	Hong Kong	Centre for Health Protection, DoH	comprehensive: general public/inbound travellers
11.	COVID-19 CORONAVIRUS FREQUENTLY ASKED QUESTIONS	http://www.nicd.ac.za/wp-content/uploads/2020/03/FAQs_COVID-19_18032020.pdf	South Africa	National Institute for Communicable Diseases	Pages 2-3: protection measures for general public/inbound travellers
12.	Interim Guidelines for 2019-nCoV response in communities	https://www.doh.gov.ph/sites/default/files/health-update/DC2020-0041-Reiteration-of-DM2020-0059-Interim-Guidelines-on-2019-nCoV-ARD-Response-in-Residential-Communities.pdf	Philippines	Department of Health	From a developing country
13.	Novel Coronavirus (2019-nCoV)-General Advisory for Public	http://health.delhigovt.nic.in/wps/wcm/connect/9f75ca804d10d82aa8a7e888a2e43d90/Advisory+Virus.pdf?MOD=AJPERES&lmod=-382194844	Delhi Govt.	Dept. of HFW	General advisory for public (very generic)
For those showing symptoms or have travelled to other countries or states in past 2 weeks?					
14.	Travelers from Countries with Widespread Sustained (Ongoing) Transmission Arriving in the United States	https://www.cdc.gov/coronavirus/2019-ncov/travelers/after-travel-precautions.html	USA	CDC	Very broad brief guidelines for inbound travellers
15.	Instructions for Self-Isolation for Iowans Returning from Countries Affected by COVID-19	https://idph.iowa.gov/Portals/1/userfiles/7/Instructions%20for%20Self-Isolation%20FINAL_2.pdf	USA	IOWA Department of Public Health	Self-isolation guidelines for inbound travellers from COVID countries

16.	Advices for Sri Lankan Students/Nationals and other foreign nationals returning from high risk area of on-going Corona virus transmission	http://www.epid.gov.lk/web/images/pdf/Circulars/Corona_virus/advices%20for%20sri%20lankan%20students.pdf	Sri Lanka	Epidemiological Unit MoH	
17.	<i>10 and 11 is relevant too</i>				
How to take care of yourself (FLHWs) and carry on with your other duties?					
18.	<i>On Appendix 5</i>				

Appendix 9 – List of citations on myths and facts related to COVID-19

1. Q&A on coronaviruses (COVID-19), World Health Organization. Available at: <https://www.who.int/news-room/q-a-detail/q-a-coronaviruses>
2. How It Spreads. Centres for Disease Control and Prevention. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/prepare/transmission.html>
3. Doremalen et.al. Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1. The New England Journal of Medicine. March 17, 2020 DOI: 10.1056/NEJMc2004973
4. Are You at Higher Risk for Severe Illness? Centres for Disease Control and Prevention. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/people-at-higher-risk.html>
5. Coronavirus disease (COVID-19) advice for the public: Myth busters. World Health Organization. Available at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters>