



## Policy Report: COVID-19 situation in Syria and possible policy responses

30th April 2020

**Aim:** The aim of this policy report is to **summarise key aspects relating to the COVID-19 response across Syria**, documenting existing vulnerabilities and proposing locally appropriate policy recommendations. This report has been developed by the Syria Public Health Network in close collaboration with Syrians working on the response inside Syria. Information and statistics are correct at time of publishing.

**Summary:** Syria's protracted conflict and humanitarian crisis has created ideal conditions for the rapid spread of SARS-CoV-2 among its population, particularly among the most vulnerable (internally displaced people (IDPs), and political detainees). The potential impact of **COVID-19 in conflict and humanitarian settings** has received little media and international policy attention. Over nine years of conflict and direct targeting of health facilities and health workers has weakened the health and WASH (water, sanitation and hygiene) infrastructures which has resulted in reduced ability to respond effectively to public health crises. The health system itself is fragmented and politicised with at least four health systems functioning within Syria's borders, each with their own leadership, governance and capacities. Each system has implemented different preparedness measures with little communication and coordination between them. Internationally recommended measures are not applicable in Syria given the degree of displacement and overcrowding, insufficient WASH and degraded health system capacities particularly in terms of the health workforce. Urgent upscaling of the health and humanitarian response across Syria, with funding and investment according to need and prevention rather than political affiliation, transparency by all actors and measures which are developed in collaboration with the local community are needed to avoid the rapid spread of SARS-CoV-2.

### 1. Background:

a. **The first case of COVID-19 was declared in government-controlled areas (GCAs) of Syria on 22nd March 2020** with 43 cases and 3 deaths reported as of 29th April 2020.<sup>1,2,3</sup> On 16th April 2020, WHO EMRO reported a positive SARS-CoV-2 test on a patient who had died in Qamishli in north east Syria (NES) two weeks prior.<sup>3</sup> None have so far been reported in north west Syria (NWS) which is under opposition control or in areas in northern Syria which are under Turkish control. However, **under-testing and under-reporting** is widespread.

b. **Neighbouring frontline countries (Lebanon, Jordan, Iraq)** reported cases as early as February 2020 with **Turkey** reporting its initial case in March 2020; Turkey now has 115,000 confirmed cases<sup>2</sup>. Iran, with whom Syria has strong geopolitical alliances has reported 92,584 cases as of 29th April 2020<sup>2</sup>. Estimates suggest that up to 22,000 Iranians visit Syria on pilgrimage annually<sup>4</sup> and thousands of Iranian militias remain in Syria. It is therefore highly likely that transmission occurred both before Syria **declared the closure of its borders** on 22nd March 2020 and subsequently as not all border crossings are effectively policed and others remain open for military purposes and humanitarian aid.

c. **Syria's health system is fragmented** and highly politicised with at least four health systems functioning within the country; these are broadly in GCAs, NES, NWS and Turkish controlled areas in northern Syria. Each has their own strategy, governance and COVID-19 preparedness plans. They face different challenges and have received different levels of financial or strategic support. 595 attacks on 350 health facilities have left **less than 50% functioning**; 90% of attacks on health facilities have been by the Syrian government and have mostly occurred in areas outside of government control.<sup>5</sup>

d. Though Syria's population is relatively young with women and children making up a high proportion of IDPs, a large percentage of Syrian adults have **risk factors for severe disease** including non-communicable diseases (which account for 45% of all deaths in Syria<sup>6</sup>) and high smoking prevalence (particular among adult men of whom 57% are smokers.<sup>7</sup>)

e. Syria's protracted and violent conflict has **displaced more than half its pre-war population of 22 million**; 6.7 million are IDPs and many live in overcrowded camps or informal shelters with inadequate humanitarian aid or supporting infrastructures (e.g. WASH, electricity). In Syria, there are **numerous vulnerabilities** which make protection of the population using internationally implemented measures extremely challenging. Public health measures adopted in Europe which seek to interrupt human-to-human transmission or to 'flatten the curve' including social distancing, self-isolation, quarantine, shielding and hygiene measures are not applicable in such settings given multiple individual vulnerabilities and policy challenges. This has created ideal conditions for the spread of SARS-CoV-2 among the population with potential for high morbidity and mortality.

### 2. Broad challenges to Syria's response to COVID-19:

#### a. *A fragmented and politicised health system which lacks transparency and has poor strategic planning*

i. Syria's protracted and violent conflict has decimated the health system, directly and indirectly affecting its ability to manage the threat of COVID-19. ii. There are at least **four health systems** functioning within Syria's borders, each with different COVID-19

<sup>1</sup> [https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200401-sitrep-72-covid-19.pdf?sfvrsn=3dd8971b\\_2](https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200401-sitrep-72-covid-19.pdf?sfvrsn=3dd8971b_2)

<sup>2</sup> <https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

<sup>3</sup> <https://reliefweb.int/report/syrian-arab-republic/syrian-arab-republic-covid-19-update-no-06-17-april-2020>

<sup>4</sup> [http://eprints.lse.ac.uk/103841/1/CRP\\_covid\\_19\\_in\\_Syria\\_policy\\_memo\\_published.pdf](http://eprints.lse.ac.uk/103841/1/CRP_covid_19_in_Syria_policy_memo_published.pdf)

<sup>5</sup> <https://syriamap.phr.org>

<sup>6</sup> [https://www.who.int/nmh/countries/2018/syr\\_en.pdf?ua=1](https://www.who.int/nmh/countries/2018/syr_en.pdf?ua=1)

<sup>7</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2563543/>

preparedness, testing capacity, resources, leadership and governance strategies.<sup>8</sup> See table 1. iii. Health and humanitarian aid delivery to different areas is politicised with most aid directed through the government only reaching GCAs.<sup>9</sup> WHO have provided training and testing capacity for Syria. However, this has been concentrated in GCAs.<sup>10</sup> iv. Plans by the Syrian Ministry of Health (MoH) to set up 1-2 centres in each of the 14 governorates to isolate cases of suspected COVID-19; constraints to this approach include the risk of transmission if suspected and confirmed cases are cohorted together; concerns about the capacity and quality of care in these centres; and potential cases may not self-report due to a well-founded fear of persecution and detention (particular for those opposed to the government) or being isolated in unfamiliar settings away from home.

**Table 1: Details of the four health systems and timeline of lockdown measures**

	Government-controlled areas	North West Syria	Turkish controlled areas in northern Syria	North East Syria
<b>Demographics</b>	-	Population: 4.17 million [approximately 2.5 million if those in Turkish controlled areas of northern Aleppo governorate are excluded] IDPs: 1.3 million	Population: approximately 1.5 million [Note, these areas have the same population as NWS as there is no border between the two territories with frequent population movements.]	Population: 3.2 million IDPs: 780,950 IDPs
<b>Key Stakeholders</b>	WHO Syrian MoH Syrian Arab Red Crescent	NWS Health taskforce for COVID-19 run from Health Cluster Gaziantep hub. Includes WHO, humanitarian organisations and Idlib Health Directorate	Turkish MoH Interim Syrian MoH Medical offices of the local councils	Kurdish-led Autonomous Administration of NES
<b>Number of confirmed COVID-19 cases</b>	43 cases [3 deaths] Cases in Damascus, rural Damascus and Dera'a governorates	0 cases	0 cases	1 case [1 death] [unclear if included in GCA counts]
<b>Timeline of lockdown Measures (including border closures)</b>	14 March 2020: Closure of schools, universities, public institutions, cancellation of events  29 March 2020: Banning of movement between governorates and between cities and surrounding rural areas*  15 April 2020: Extension of travel ban between Syrian governorates until May 2nd <sup>11</sup>  Curfew of 6pm to 6am imposed <sup>12</sup>	15 March 2020: closure of all official crossing points with GCAs and Kurdish areas of control. At the same time, at Bab al Hawa border crossing, trade and humanitarian activities were reduced to the minimum with no other movement of people e.g. visits  Other measures introduced include, self-isolation advisories as well as closure of schools and crowded markets. Mosques were closed for 2 weeks but have now reopened.  Movement between NWS and Turkish controlled areas have been closed with some exceptions for medical evacuation, healthcare workers and some humanitarian aid.	15 March 2020: closure of all official crossing points with GCAs and Kurdish areas of control. At the same time, Bab al Salama border activities were reduced to the minimum with limited trade and humanitarian crossings.  16 April 2020: Interim Syrian Government locked down Afrin with few exceptions for humanitarian and trade activities. The same decree introduced further social distancing measures in these areas.  There are plans to establish decontamination and triage facilities for the crossing points with Idlib region.	19th March 2020: DSA (Democratic Self Administration) of NES issued a statement via social media announcing prohibition of movement from 21 <sup>st</sup> March 2020 between governorates and between major cities within governorates.  21 <sup>st</sup> March 2020: Curfew imposed at 6am except for medical personnel, international staff, grocery store workers and food delivery drivers

\*Criticisms of this approach have been that divisions of central and rural areas have not followed geographic boundaries; for example, some rural areas which contain Syrian government military personnel like Yaafour or Dahiat Al-Assad in Damascus governorate have been classed as central.<sup>13</sup>

<sup>8</sup> Douedari, Y., Howard, N. Perspectives on Rebuilding Health System Governance in Opposition-Controlled Syria: A Qualitative Study. International Journal of Health Policy and Management, 2019; 8(4): 233-244. doi: 10.15171/ijhpm.2018.132

<sup>9</sup> <https://www.chathamhouse.org/publication/principled-aid-syria-framework-international-agencies>

<sup>10</sup> <https://reliefweb.int/report/syrian-arab-republic/syrian-arab-republic-covid-19-update-no-06-17-april-2020>

<sup>11</sup> [https://twitter.com/Step\\_Agency/status/1250400426920476672](https://twitter.com/Step_Agency/status/1250400426920476672)

<sup>12</sup> <https://reliefweb.int/report/syrian-arab-republic/syrian-arab-republic-covid-19-update-no-05-10-april-2020>

<sup>13</sup> [http://www.syriaahr.com/?p=371033&\\_\\_cf\\_chl\\_jschl\\_tk\\_\\_=96ea0f8dfd2bb0f41ffada3269ac47acf3b0834-1587311913-0-AZ3v\\_\\_Vgp7dyfBGBYIrM6bJvHwEUW1ImjbSqHY3fp3ysygrtnlMjyIKjw8ZFrAszg2slv5E\\_qCuk3qABclLkVndZE\\_a2YyIIFSFjIzI9-O9kjkfQF9jfrmwAoakJ6xj9DykcVzu8NgTWXa2InOl3CQE13doJKMEnZWdBiLD9dOujNlgYgGqh4KyqLdRqYk9SAhjHZ-5L0nHMJVx7SPemWcfSpOww0DiBcCgvWY7abQOqKJ3JaykZA574M4TynL3nn6tGMInVhf8Mdzv\\_Co3FnO5FLMYNfOe4EpMuGalx7ND](http://www.syriaahr.com/?p=371033&__cf_chl_jschl_tk__=96ea0f8dfd2bb0f41ffada3269ac47acf3b0834-1587311913-0-AZ3v__Vgp7dyfBGBYIrM6bJvHwEUW1ImjbSqHY3fp3ysygrtnlMjyIKjw8ZFrAszg2slv5E_qCuk3qABclLkVndZE_a2YyIIFSFjIzI9-O9kjkfQF9jfrmwAoakJ6xj9DykcVzu8NgTWXa2InOl3CQE13doJKMEnZWdBiLD9dOujNlgYgGqh4KyqLdRqYk9SAhjHZ-5L0nHMJVx7SPemWcfSpOww0DiBcCgvWY7abQOqKJ3JaykZA574M4TynL3nn6tGMInVhf8Mdzv_Co3FnO5FLMYNfOe4EpMuGalx7ND)

**b. Interrupted WASH (water, sanitation and hygiene)**

Sufficient WASH is key to interrupting human to human transmission however i. there have been **multiple attacks on water pumping stations** and electricity plants affecting clean water supplies across the country; examples include the takeover of Allouk Water Station in NES by Turkey affecting water to half a million people in Hassakeh governorate<sup>14</sup> and 8 attacks on water pumping stations in Idlib by the Syrian government in summer 2019. ii. Hygiene education and awareness campaigns introduced do not always take into account local cultural factors or the availability of sufficient WASH, particularly to IDPs. One IDP in NWS is quoted: ‘Wash our hands? Some people can’t wash their kids for a week.’<sup>15</sup> **See table 2**

**c. Where self-isolation and social distancing are luxuries**

**i. Overcrowding is rife** across the whole of Syria and particularly affects IDPs. The latest escalation of **violence in NWS** by Syrian and Russian government forces forcibly displaced almost one million of the 4.17 million civilians in the area, significantly affecting living conditions.<sup>16</sup> Around 327,000 live in tents or camps, 165,000 in unfinished buildings, 93,000 in collective shelters and 366,000 in rented properties or with host families. In NES, as of mid-December 2019, there are 780,950 IDPs; 200,000 had been displaced by the Turkish assault in October 2019 of whom 129,041 have returned.<sup>17</sup> The majority of IDPs in NES are hosted with local communities; 91,000 live in five camps (Al Hol, Areesha, Mahmoudli, Newroz and Roj) while 28,000 live in 58 collective shelters; 94% of those in Al Hol are women and children. Other densely populated areas include urban and peri-urban areas of Damascus/ rural Damascus/ Aleppo and Homs which are now under government control.<sup>18</sup> ii. There are over **100,000 detainees**, mostly in GCAs;<sup>19</sup> most detentions are arbitrary or for reasons of political dissent or protesting. Conditions in detention centres are stark with over 50 detainees in cells of 3 square meters forcing detainees to sleep in shifts.<sup>20</sup> Detainees are particularly susceptible to COVID-19 due to immune systems weakened by torture, malnutrition, inadequate medical care and insufficient sunlight or ventilation.<sup>21</sup> These conditions could lead to rapid spread of SARS-CoV-2 not only to detainees but also those running the detention centres, their families and the wider community.

**d. Insufficient resources and funding across all four areas of Syria**

There is major funding gap for Syria’s humanitarian response; UNOCHA reports that in 2019, it received \$2.13bn of \$3.29bn needed,<sup>22</sup> affecting all sectors, particularly WASH (received 34.5% of required funding), shelter/ non-food items (14.9%), health (38.6%) and nutrition (73.6%).<sup>23</sup>

**i. Ventilators:** The need for ventilators has overwhelmed high functioning health systems in Europe and USA and will rapidly overwhelm Syria’s conflict affected health system. A Chinese CDC report of 44,500 patients with COVID-19 reports that 81% were mild (none or mild pneumonia), 14% had severe disease (shortness of breath, hypoxia, or more than 50% lung involvement) and **5% were critical** (respiratory failure, multiorgan failure, shock) with an overall case mortality of 2.3%.<sup>24</sup> These proportions are unlikely to be mirrored in Syria due to significant differences in the setting however, these estimates have been used to provide indicative numbers of COVID-19 patients who could be managed across Syria. Researchers from LSE estimate that there are **325 non-occupied ventilators** across the whole of Syria for a current population of 18 million; extrapolating from this, Syria could manage a maximum of 6500 COVID-19 cases if 5% required ventilation.<sup>3</sup> There are a total of around 104 adult ventilators in NWS for 4.17 million people.<sup>2</sup> In NES, for 3 million people; there are **22 available** intensive care beds (HeRAMS) of which 18 are in Hassakah governorate, 4 are in Raqqa and none in Deir al-Zor.<sup>4</sup> Insufficient numbers of ventilators or healthcare workers (HCWs) trained to use them will result in **unnecessary deaths and challenging ethical** burdens for HCWs.

**ii. Healthcare workers:** Syria’s conflict has driven the exodus of almost 70% of Syria’s healthcare workforce<sup>25</sup> and killed more than 923 healthcare workers (90% due to government targeting).<sup>5</sup> It has also negatively affected the undergraduate and postgraduate training of HCWs leading to severe skill and capacity shortages across the country. COVID-19 has led to the deaths of hundreds of HCWs internationally; should any of Syria’s remaining HCWs fall victim, this will have consequent effects on patient mortality related to COVID-19 as well as the numerous other conditions and diseases which afflict the displaced population. Though WHO delivered almost a million pieces of **PPE (personal protective equipment)** and supported training<sup>26</sup>, this is unlikely to reach areas outside of government control.<sup>27</sup> Syrian humanitarian organisations in collaboration with the COVID-19 Task Force in NWS are providing PPE to healthcare workers in NWS. However, shortages exist internationally with the consequent risk of insufficient supplies or inability to transport to areas of need due to border closures<sup>28</sup>.

<sup>14</sup> <https://www.hrw.org/news/2020/03/31/turkey/syria-weaponizing-water-global-pandemic>

<sup>15</sup> <https://www.nytimes.com/2020/03/19/world/middleeast/syria-coronavirus-idlib-tents.html>

<sup>16</sup> [http://syriahealthnetwork.org/attachments/article/28/PolicyBrief\\_NWSyria\\_28.2.20.pdf](http://syriahealthnetwork.org/attachments/article/28/PolicyBrief_NWSyria_28.2.20.pdf)

<sup>17</sup> <https://reliefweb.int/map/syrian-arab-republic/syrian-arab-republic-north-east-syria-displacement-18-december-2019>

<sup>18</sup> <https://reliefweb.int/report/syrian-arab-republic/syrian-arab-republic-covid-19-update-no-06-17-april-2020>

<sup>19</sup> <http://sn4hr.org/blog/2019/08/31/54185/>

<sup>20</sup> <https://www.amnesty.org.uk/blogs/campaigns-blog/syria-death-coronavirus-latest-fate-awaiting-syrians>

<sup>21</sup> <https://saydnaya.amnesty.org/>

<sup>22</sup> <https://reliefweb.int/report/syrian-arab-republic/syrian-arab-republic-2019-humanitarian-response-plan-monitoring-report>

<sup>23</sup> <https://hno-syria.org/#key-figures>

<sup>24</sup> <https://jamanetwork.com/journals/jama/fullarticle/2762130>

<sup>25</sup> <http://cmimarseille.org/highlights/strengthening-human-resources-health-integration-refugees-host-community-health-systems>

<sup>26</sup> <https://news.un.org/en/story/2020/04/1061722>

<sup>27</sup> <https://www.chathamhouse.org/publication/principled-aid-syria-framework-international-agencies>

<sup>28</sup> [http://syriahealthnetwork.org/attachments/article/28/PolicyBrief\\_NWSyria\\_28.2.20.pdf](http://syriahealthnetwork.org/attachments/article/28/PolicyBrief_NWSyria_28.2.20.pdf)

**Table 2: Testing and healthcare system capacity**

	<b>Government-controlled areas</b>	<b>North West Syria</b>	<b>Turkish controlled areas in northern Syria</b>	<b>North East Syria</b>
<b>Testing capacity</b>	WHO have supported rehabilitation of Central Public Health Laboratory in Damascus, trained dozens of laboratory technicians and rapid response team members, provided five PCR machines and provided testing kits. WHO are supporting three new satellite laboratories in GCAs including in Aleppo, Homs and Latakia governorates. <sup>29</sup>	<p>COVID-19 Health Taskforce supported by health cluster in Turkey and WHO have provided training for 3 laboratory staff in Ankara National Reference Laboratory; this is with a view to them delivering training to other technicians.</p> <p>Since 24<sup>th</sup> March, one laboratory has been providing PCR based testing and has a capacity of 20-30 tests per day. As of 18<sup>th</sup> April 2020, almost 200 samples have been tested with many more pending.<sup>30</sup> There is a plan to build 2 other laboratories in Idlib, increasing testing capacity to 60-90 tests per day.</p> <p>EWARN (Early Warning and Response Network; affiliated to the Assistance Coordination Unit) has been leading all testing in this area. They started with 900 tests procured by EWARN from Turkey. WHO has supported EWARN with an additional 5000 tests that arrived in Idlib by mid-April 2020.</p>	All testing is being done through the Turkish MoH. Samples are collected by individual hospitals and are then sent cross the border to Turkey to the reference laboratory in Adana.	<p>No testing is available with plans to send samples to Damascus.</p> <p>However, a recent agreement will allow testing in a GCA of Qamishli though this is yet to be established.</p>
<b>Hygiene campaigns and disinfection</b>	There have been several campaigns to disinfect streets, schools, health centers, and religious places led by Syrian Arab Red Crescent (SARC), local municipalities, and local committees.	<p>The White Helmets (Syria Civil Defence) has been leading on this. By 18<sup>th</sup> April, 6463 public facilities were supported regularly by these disinfection campaigns.</p> <p>NGOs have been distributing hygiene kits and conducting various disinfection and awareness raising activities.</p>	Local NGOs have conducted various public awareness campaigns.	Local humanitarian organisations have created public awareness campaigns to encourage social distancing, self-isolation and hygiene measures.
<b>Building Existing Healthcare system capacity</b>	Quarantine centres across GCAs have been established; WHO have reviewed 11 of them in Aleppo, Lattakia, Deir Ezzor and Homs. <sup>31</sup>	<p>There are 104 adult ventilators and 62 paediatric/ neonatal ventilators.</p> <p>The taskforce plans to support 210 extra beds (90 ICU beds, 90 inpatient and 30 step down beds) across three facilities. Funding has been approved for three months. However, on the ground at the present time, only one department in an existing health facility has turned into a COVID- 19 specific centre.</p> <p>Idlib Health Directorate has started a project to establish 17 Community-Based Isolation centres (CBIs), 15 will be ready by the first week of May. The target is to have 1400 beds for these CBIs.</p>	The Turkish MoH is scaling up the ICU capacity of Marea hospital (northern Aleppo) with a target of 40 ICU beds. The hospital will be the isolation hospital for COVID-19 cases in the region.	<p>There are 22 ‘available’ ventilators (18 in Al-Hassakeh and 4 in Raqqa) with wide estimates for the total number of ventilators in the area.</p> <p>Amuda Public Hospital has been assigned to receive suspected cases.</p> <p>MSF is training staff in Al-Hassakeh National Hospital and preparing the facility for COVID-19. This includes creating a 48-bed isolation ward.</p>

<sup>29</sup> <https://news.un.org/en/story/2020/04/1061722>

<sup>30</sup> <https://egyptindependent.com/as-rebel-held-syria-fears-virus-just-one-machine-is-there-to-test/>

<sup>31</sup> <https://tande.substack.com>

**e. Existing socioeconomic consequences of prolonged conflict could be exacerbated**

Corruption and protracted conflict have led to adverse economic conditions with high inflation. WFP (World Food Program) estimates that 7.9 million Syrians inside Syria are food insecure<sup>32</sup> and **83% of Syrians live below the poverty line.**<sup>33</sup> A strict lockdown over a prolonged period could push people further into poverty if wage-earners cannot work.<sup>34</sup> Few families, especially the most vulnerable will be able to stock up supplies so an increase in food and humanitarian aid would be needed in an already underfunded response.<sup>3</sup> **Price inflation for essentials** and sanitation products have already increased significantly.<sup>29</sup>

**f. Disruption of humanitarian supply chain**

Organisations are reporting restrictions that are **preventing aid deliveries** for COVID-19 from reaching two million people in NES<sup>35</sup>. The UNSC resolution on cross-border aid which was first adopted in 2014 allowed the use of four border crossings along Syria's border with Turkey, Jordan and Iraq. This provided essential aid to nearly 40% of the Syrian population. After vetoes by Russia and China, a **partial renewal of the resolution** was made on 10th January 2020 which allowed only two border crossings with Turkey to remain open and for a duration of 6 months only; this has affected humanitarian aid to NES and has impaired the COVID-19 response in the area.

**4. Recommendations on immediate actions needed for COVID-19 response in Syria**

**R1. Urgent and sustained increases in funding** for the COVID-19 response in Syria is required from the international community and donors:

- a. This should include funding which is able to be freely directed to non-government controlled areas, via direct aid allocation. This is particularly important for the regions of NWS and NES where hostilities are ongoing and local humanitarian and health responses are already severely underfunded.
- b. Although the focus should be on immediate funding for the COVID-19 response, this should not detract from the need for concurrent continued funding to ongoing WASH and health interventions unrelated to Covid-19, in order to mitigate increases in mortality and morbidity from other causes during Covid-19.
- c. Increased funding of HCW training and support remotely (via tele-education) or in neighbouring countries which can provide immediate short-term capacities to address COVID-19 but will enable increased capacity for the medium to long-term development / early recovery of the health system(s) inside Syria.

**R2. The Syrian authorities should ensure immediate renewal of UN Security Council Resolutions on cross-border aid to maintain humanitarian access during COVID-19:**

- a. Although the Syrian government and allies have largely ignored UN security resolutions, urgent renewal of the cross-border resolution to its previous terms is essential to ensure continued delivery of medical supplies and personnel for the COVID-19 response.
- b. All aid organisations working to supply COVID-19 aid deliveries should not face challenges in distribution of the appropriate medical supplies and personnel, particularly to areas in NES. Syrian authorities in Damascus should urgently reverse any restrictions on aid reaching areas where hostilities are ongoing.
- c. Provision of sufficient supplies (including PPE) and HCWs to ensure an effective public health response to COVID-19 in all regions and to all populations is essential for the success of any disease control measures; exclusion of certain areas or populations in Syria will be counter-productive to the COVID-19 response.

**R3. A cohesive and coordinated public health response with a strong focus on preventing, containing and treating COVID-19 is needed between all sectors of the health system and medical-humanitarian response, including but not limited to:**

- a. International prevention measures to be adapted to the local context (for example in informal settlements or IDP camps,) realistic plans for hygiene measures and advice for quarantine of symptomatic individuals to prevent further spread should be integrated into operational plans for local humanitarian actors. There should be operational plans in place to ensure pathways are in place for transfer of any patients needing hospital care to the nearest health facility with ICU capacity.
- b. All populations should be equally included in the COVID-19 prevention measures and response to COVID-19; this includes those in detention facilities who do not have access to hygiene measures or the ability to social distance. To prevent rapid spread of COVID-19 among detainees and those who work there, it is recommended that they should be moved to improved conditions.
- c. High risk groups, such as those with underlying health conditions or the elderly, particularly those living in informal settlements or IDP camps, should have specific public health measures put in place early, such as shielding or priority relocation to safer living conditions where they are able to self-isolate effectively.

<sup>32</sup> <https://www.wfp.org/countries/syrian-arab-republic>

<sup>33</sup> <https://reliefweb.int/report/syrian-arab-republic/fast-facts-syria-crisis-march-2019>

<sup>34</sup> <https://blogs.eui.eu/medirections/corona-i-will-die-hunger-socio-economic-impact-covid-19-syrian-population-new-challenges-regime/>

<sup>35</sup> Reference: <https://reliefweb.int/report/syrian-arab-republic/syria-aid-restrictions-hinder-covid-19-response>

**R4. The WHO and health directorate should focus on COVID-19 response coordination and modelling for all areas of Syria:**

- a. **Real world modelling and forecasting<sup>29</sup>:** WHO and Syrian-led initiatives in collaboration with international institutions have begun forecasting the potential numbers and severity of cases in NWS. Similar initiatives, including modelling of success of particular interventions, are required across the whole of Syria to understand where and how cases will spread. Models which collect and analyse real-time data and which can estimate the impact of potential, feasible interventions are required to inform health system needs and policies. Supporting existing epidemiological surveillance systems e.g. EWARN and EWARS in Syria will strengthen existing measures and support timely reporting.
- b. **Mapping and coordination:** Mapping areas and density of IDPs as well as indicator conditions e.g. SARI (severe and acute respiratory infection) and ILI (influenza like illness) or confirmed cases (where testing is available) across areas can support planning and response. Coordination across sectors remains important to avoid duplication, minimize gaps and ensure consistent messaging.
- c. **Provide support based on need:** WHO have supported the Syrian MoH with training, equipment and capacity building of laboratories; however, these efforts have been focused in GCAs. Similar investments are required in NWS and NES.

**R5. The priorities for humanitarian and international organisations in the COVID -19 response should include:**

- a. **WASH prioritisation:** funding and measures to scale-up low-tech WASH interventions including latrines, safe disposal measures, access to hand-washing stations are needed, particularly for IDPs or those living in sub-standard shelters. It will support the response to COVID-19 as well as prevent other communicable diseases. Protection of water and electricity pumping stations by all actors is essential.
- b. **Establish a coordinated public health – COVID-19 - communications campaign directed at IDPs and refugees.** There has been limited use of electronic communications e.g. mobile smart phones to relay public health messages to displaced populations in Syria and the region. This campaign should outline the basic prevention measures people should take and provide regular updates of the COVID-19 situation in various regions.
- c. **Protect essential services:** sexual and reproductive health (SRH,) maternal, neonatal and child health (MNCH), vaccination, NCD needs will continue and need to be adapted to adjust to the new reality of COVID-19. This requires dedicated funding, innovative solutions e.g. tele-health interventions, skill substitution (task shifting) to maintain adequate coverage.
- d. **Support health system capacity:** Urgent planning and funding directed to increasing and supporting capacity of existing health facilities is needed. This includes: community isolation beds for mild cases in areas where people are unable to self-isolate; increase in number of inpatient beds for severe cases; increase in ICU and ventilators, and means of emergency transportation of these facilities, across Syria but particularly for NES and NWS to support needs of critical cases. Protection of health facilities and healthcare professionals in line with International Humanitarian Law is essential.
- e. **Protect, and invest in training of healthcare workers:** prioritise HCWs for testing, PPE (personal protective equipment) and healthcare needs to ensure they can continue to serve the population. Upskilling junior staff and skill substitution (of medical or skilled non-medical staff) is required to meet the needs e.g. community healthcare workers could be trained to screen for symptoms. Training in NWS has started on infection prevention and control. Acquisition of ventilators will only be effective if staff are trained to use them or sustainable tele-ICU interventions are harnessed.
- f. **Localised (SOPs) standard operating procedures and protocols<sup>28</sup>:** SOPs relevant to the local contexts are required including for testing, public health interventions, PPE, infection prevention and control, ventilation (including triage and use,) treatment and follow-up. Protocols from high income countries or other low or middle-income countries may not be implementable in the Syrian context.
- g. **Protection, MHPSS and community engagement:** Many Syrians face vulnerability however, IDPs are more likely to be fully reliant on aid for water, shelter, nutrition and NFIs (non-food items). In both NWS and NES, most IDPs are women and children; as such, measures focused on their needs and which are culturally appropriate are important and can support community led public health interventions. ‘Lockdown’ approaches, social distancing and quarantining are unlikely to be effective in IDP settings and are likely to disproportionately affect those most vulnerable. Alternate measures should be considered, such as shielding (protecting high risk populations such as the elderly or immunocompromised), and this requires careful community engagement.

The Syria Public Health Network was established in early 2015 in response to calls for an independent and critical assessment of the humanitarian and health response to the conflict from colleagues working in Syria and the wider region. This policy brief has been written by Syrian public health professionals in close collaboration with actors working across Syria. We would like to thank all contributors to this brief. Please visit our website on: <http://www.syriahealthnetwork.org>. Please contact us at [syriahealthnetwork@gmail.com](mailto:syriahealthnetwork@gmail.com) with any queries.