

STRENGTHENING THE HEALTH SYSTEMS RESPONSE TO COVID-19

Adapting primary health care services to more effectively address COVID-19 (17 June 2020)



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Introduction and overview

Primary health care [in communities and facilities] has a critical role to play in the pandemic context, facilitating early recognition, resuscitation and referral of people with COVID-19¹, and providing the coordination and continuity to maintain other essential health services and limit hospital stays.² Robust primary health care structures— including accessible first-contact services, linkages across levels of the health system, and targeted referral and counter-referral architecture— support the dynamic adaptations needed to limit COVID-19 transmission and deliver services safely as transmission surges and recedes.

This paper is one of a suite of technical guidance papers developed by the WHO Regional Office for Europe to provide practical information and resources for decision-makers on measures to strengthen the health system response to COVID-19.

This guidance focuses on steps countries might take to strengthen the response of primary health care to more effectively address the challenges created by the COVID-19 pandemic. It supports the operationalization of the policy recommendations on strengthening the health system response to COVID-19³ that apply to primary health care and its role in maintaining continuity of essential regular health care services. The guidance complements WHO's interim guidance on "community-based health care, including outreach and campaigns, in the context of the COVID-19 pandemic"⁴ and on "maintaining essential health services: operational guidance for the COVID-19 context".⁵

The guidance is targeted to primary health care policy-makers and only addresses issues relevant for primary health care providers; that is, not community pharmacists, dentists, other allied health professionals or social service providers. It has been prepared on basis of the a systematic review of the best available evidence and emergent country practices in response to the COVID-19 outbreak in the WHO European Region. It will be updated on a regular basis as new information becomes available.

¹ WHO. Operational considerations for case management of COVID-19 in health facility and community. Geneva: World Health Organization; 18 March 2020 (https://www.who.int/publications-detail/operational-considerations-for-case-management-of-covid-19-in-health-facilityand-community, accessed 3 June 2020).

² WHO. Maintaining essential health services: operational guidance for the COVID-19 context. Geneva: World Health Organization; 1 June 2020. (https://www.who.int/publications-detail/10665-332240, accessed 3 June 2020)

³ WHO. Strengthening the health systems response to COVID-19 [website]. Copenhagen: WHO Regional Office for Europe; 2020. (http:// www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/novel-coronavirus-2019-ncov-technical-guidance/ coronavirus-disease-covid-19-outbreak-technical-guidance-europe/strengthening-the-health-systems-response-to-covid-19, accessed 16 May 2020).

⁴ WHO. Community-based health care, including outreach and campaigns, in the context of the COVID-19 pandemic. Geneva: World Health Organization; 5 May 2020. (https://www.who.int/publications-detail/community-based-health-care-including-outreach-and-campaigns-inthe-context-of-the-covid-19-pandemic, accessed 3 June 2020).

⁵ WHO. Maintaining essential health services: operational guidance for the COVID-19 context. Geneva: World Health Organization; 1 June 2020. (https://www.who.int/publications-detail/10665-332240, accessed 3 June 2020).

The COVID-19 challenge

SARS-CoV-2, the virus that causes COVID-19, is different from many other agents causing infectious diseases for which there are effective means to prevent and/or treat the disease. The COVID-19 pandemic differs from traditional influenza epidemics in important ways,⁶ notably the extent of silent transmission, that undermine the utility of emergency preparedness plans developed based on such epidemics. SARS-CoV-2 spreads easily and fast. Moreover, the majority of COVID-19 cases are asymptomatic or take a mild form that can easily be managed by primary health care providers. The WHO COVID-19 weekly surveillance report for Epi Week 21 (18 – 24 May 2020) indicates that in the WHO European Region, 19% of positive cases have been hospitalized and 9% of people hospitalized have required admission to intensive care units;⁷ however, some countries report much higher percentages of hospitalization than others. Italy, for example, reported 40% of confirmed cases being hospitalized early in the pandemic,⁸ and in the most recent report from Spain 54% of confirmed cases were hospitalized.⁹ When the total number of infected people is high, the need for hospitalization and intensive care may quickly exceed the capacity of the health system and this will contribute to increased mortality rates, as has been the case in some places.

Primary health care has the potential to play a vital role both in slowing the spread of the virus and managing the people with mild or moderate cases of COVID-19 and, ultimately, reducing the risk of saturation and eventual collapse of the health care infrastructure, particularly hospitals. But today's primary health care services were not designed to cope with a pandemic such as that caused by COVID-19. In many countries, primary health care officials and experts are not part of the national pandemic response team, nor do primary health care professionals provide any care for COVID-19 patients. Rather, patients go directly to hospital, even when presenting with only mild symptoms, which in many countries has overwhelmed their capacity to treat the more severe and critically ill COVID-19 patients. This guidance has been prepared to response to the pandemic by adapting their primary health care systems to specifically address the needs created by the virus causing COVID-19.

Early data from countries with more advanced COVID-19 epidemics indicate that the risk of severity and death increases with age, as well as with the presence of underlying conditions such as hypertension, diabetes and obesity.¹⁰ To date in the WHO European Region, 94% of all deaths have been in people aged over 60 years, and 97% of all deaths were in people with at least one underlying health condition.¹¹ Since the majority of deaths so far have occurred in people older than 80 years (>55% as of Epi week 21),¹² this puts people living in nursing homes at much greater risk of the disease. Other vulnerable populations, such as the homeless, refugees and migrants, and the poor, are also likely to be at high-risk for COVID-19 complications, but may have limited access to traditional primary health care providers and needed social services. It is for these reasons that the roles and responsibilities of primary health care must be adapted to better address the challenges created by COVID-19.

⁶ WHO. Q&A: Similarities and differences – COVID-19 and influenza [website]. Geneva: World Health Organization; 2020. (https://www.who. int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/q-a-similarities-and-differences-covid-19-andinfluenza, accessed 16 May 2020).

⁷ WHO. COVID-19 weekly surveillance report (Epi week 21). Copenhagen: WHO Regional Office for Europe; 2020 (http://www.euro.who. int/__data/assets/pdf_file/0003/445089/Week-21-COVID-19-surveillance-report-eng.pdf?ua=1, accessed 8 June 2020).

⁸ Lazzerini M. COVID-19 in Italy: Momentous decisions and many uncertainties. Lancet. 2020;8(5):E641-E642 [Correspondence]. doi: 10.1016/S2214-109X(20)30110-8.

⁹ Ministry of Health, Spain. Update 103. Coronavirus disease (COVID-19). 12 May 2020. Situation in Spain [in Spanish].

¹⁰ Verity R, Okell LC, Dorigatti I, Winskill P, Whittaker C, Imai N et al. Estimates of the severity of coronavirus disease 2019: A model-based analysis. Lancet Infect Dis. 2020; Mar 30. pii: S1473-3099(20)30243-7. doi: 10.1016/S1473-3099(20)30243-7 [Epub ahead of print].

¹¹ WHO. COVID-19 weekly surveillance report (Epi week 18). Copenhagen: WHO Regional Office for Europe; 2020 (http://www.euro.who. int/__data/assets/pdf_file/0008/442808/week18-covid19-surveillance-report-eng-.PDF?ua=1, accessed 16 May 2020).

Strategic directions for adapting primary health care to better address COVID-19

Three strategic directions and recommended actions serve as guidance for primary health care, and public health officials and decision-makers on how to adapt their primary health care systems to better address COVID-19. The three strategic directions are:

- 1. Integrate primary health care more prominently into the overall public health response to COVID-19.
- 2. Adapt the roles and responsibilities of primary health care to better respond to COVID-19
- 3. Maintain the delivery of essential (non-COVID-19) primary health care services during the pandemic.

Integrate primary health care more prominently into the overall public health response to COVID-19

Combating the COVID-19 pandemic requires a combination of public health measures to prevent transmission and reduce the impact of the pandemic.¹³ Epidemiology and surveillance systems are indispensable tools for the detection, isolation, contact tracing, quarantine and monitoring activities of the fight against the pandemic. The provision of information to the population on containing and managing the outbreak, on appropriate hand and respiratory hygiene practices, on the protective use of masks, and the introduction of measures for physical and social distancing are also essential. Preventing and managing outbreaks of epidemics are by definition the responsibilities of public health authorities, but as for other outbreaks this must occur in concert and with people-centred continuum of care, at all levels.

Primary health care is in a unique position to augment the impact of many public health measures and should therefore be an integral part of the overall public health response to COVID-19. There are five areas where primary health care can play a particularly important role:

- 1. Informing patients and the community about COVID-19.
- 2. Interrupting the chain of transmission of the virus and minimizing the spread.
- 3. Enhancing the precision and reach of epidemiological surveillance.
- 4. Identifying and protecting individuals and population groups who are particularly vulnerable to infection and/or at risk for greater severity and death.
- 5. Ensuring appropriate referrals for testing, home isolation and hospital admission.

¹³ WHO. COVID-19 STRATEGY UPDATE. 14 April 2020. Geneva: World Health Organization; 2020 (https://www.who.int/docs/default-source/ coronaviruse/covid-strategy-update-14april2020.pdf, accessed 8 June 2020)

Primary health care providers can reinforce public health messages about how to minimize the spread of the virus by conveying this information in easily understandable ways when they are in contact (virtually or in person) with the population for whom they are responsible. They can also help to educate employees in nursing homes, homes for people with disabilities, and social service providers on how to protect themselves against exposure and minimize the risk that they transmit the virus to the people they serve. In addition, they can train community workers in how to instruct the people they visit in preventing the transmission of the virus.

Primary health care providers are ideally positioned to identify and reach out to the patients for whom they are responsible, who are at greater risk if infected with the virus that causes COVID-19. This includes those people with one or more chronic conditions, such as hypertension, diabetes, chronic obstructive lung disease, and people with suppressed immune systems. Older people, particularly those living in nursing homes, and other institutionalized persons, are also at greater risk for COVID-19 severity and rapid contagion. Primary health care providers can help ensure that high-risk individuals are tested, and that people with suspected or confirmed COVID-19 are appropriately referred for home isolation, hospital admission or alternative case sites depending on the severity of their symptoms.

Primary health care providers can augment traditional epidemiological surveillance through early and precise case detection in the population they are responsible for by contributing to contact tracing of identified cases, and through case detection by contributing to contact tracing of identified cases, and by supervising patients in home isolation. Reinforced epidemiological surveillance will also enable a better understanding of the epidemiological evolution of the disease. Systems will need to be put in place to inform primary health care providers about local/national surveillance arrangements and ensure they report the required data.

Primary health care providers with their knowledge of local conditions and their relationships with their patients are well positioned to respond to the specific health needs of the population in their communities. This will also put each provider in an excellent position to help ensure the safety of their community as social activities gradually resume and physical distancing and quarantine requirements are relaxed.

Integrate primary health care more prominently to amplify the impact of public health measures

1. Informing patients and the community about COVID-19

- Representatives of primary health care policy-makers and providers should collaborate with public health officials to develop and implement population information regarding COVID-19 symptoms; how to limit transmission of virus; and where to receive additional information. Such information should be culturally and linguistically appropriate to be accessible to all population groups, including older people, migrants, refugees, and other vulnerable groups.
- Representatives of primary health care policy-makers and providers should contribute to the efforts to provide a clear entry point into the health system to receive advice when presenting with symptoms or other related concerns. This first point of contact can be based at primary care level, asking individuals to contact their own primary health care provider or a dedicated help line established by the public health authorities (or a combination of both). Either way, consideration should be made to ensure the system is able to deal with a large volume of enquiries and able to act as a point of triage and a source of information.
- Collaborate with public health officials in the establishment and, possibly, staffing of COVID-19 information hotlines.

2. Interrupting the chain of transmission of the virus

- Primary health care providers should educate health care workers, social service providers, employees in nursing homes and other frontline workers about infection prevention and control measures to protect themselves and their clients against virus transmission
- Primary health care providers should communicate public health information on infection prevention and control
 measures,¹⁴ such as hygienic practices, proper use¹⁵ and handling¹⁶ of protective masks and physical distancing, to
 patients and the community to increase health literacy and reduce the transmission of the virus. To be effective, the
 information should be provided in a culturally and linguistically appropriate way.

3. Enhancing the precision and reach of epidemiological surveillance

• Primary health care providers should support epidemiological surveillance by prompt reporting of confirmed and suspected cases to public health/epidemiologic services; assist with contact tracing of suspected and confirmed cases; and reach out to patients and people in home isolation on a regular basis to help them cope with the required isolation.

4. Identifying and protecting vulnerable and at-risk individuals and population groups

- Reach out to high-risk patients and other vulnerable persons and groups, particularly those in nursing homes to ensure early detection and appropriate measures to prevent transmission.
- Work with public health officials and other relevant authorities to develop tailored public health measures for migrants, refugees and others living in close proximity and who, as a result, are at greater risk for transmitting the virus and are unable to self-isolate. Such measures might include establishing new, less crowded living arrangements and, in the case of infected persons, referral to alternative care sites, such as converted schools or convention centres.
- Work with public health officials and community services to ensure access to food and essential medicines and health technology for those in isolation or quarantine, particularly individuals living alone or with limited mobility.

5. Ensuring appropriate referrals for testing, home isolation and hospital admission

• Collaborate with public health officials on the development and implementation of protocols for isolation and quarantine, tracing of contacts, referral of individuals with highest probability of poor outcomes to hospital: patients with severe and critical illness, those with mild disease and at risk for poor outcome (age >60 years, cases with underlying comorbidities, e.g. chronic cardiovascular disease, chronic respiratory disease, diabetes, cancer).

¹⁴ WHO. Coronavirus disease (COVID-19) technical guidance: Infection prevention and control / WASH [website]. World Health Organization; 2020 (https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/infection-prevention-and-control, accessed 3 June 2020).

¹⁵ WHO. Advice on the use of masks in the context of COVID-19. Interim guidance, 5 June 2020. Geneva: World Health Organization; 2020 (https://www.who.int/publications/i/item/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak, accessed 8 June 2020).

¹⁶ WHO. Coronavirus disease (COVID-19) advice for the public: When and how to use masks [website]. World Health Organization; 2020 (https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks, accessed 8 June 2020).

Since symptoms vary widely from person to person and asymptomatic carriers may spread COVID-19¹⁷, a widespread but targeted testing strategy is the best way to contain the spread of the virus. Such a strategy allows the population to be tested for both preventive and diagnostic purposes, enabling 1) the isolation of positive cases with mild or no symptoms and therefore minimizing inadvertent transmission of the virus; and 2) determination of when infected people cease to be infectious and therefore no longer have to self-isolate. If implemented effectively, the strategy would maximize the protection of older people and other at-risk populations, and health care and other frontline workers.

When community transmission is widespread, diagnostic capacity may be insufficient for widespread testing, necessitating the need to prioritize those to be tested. WHO Interim guidance (21 March 2020)¹⁸ recommends prioritizing:

- people who are at risk of developing severe disease and vulnerable populations who will require hospitalization and advanced care for COVID-19 (chronic patients, multimorbid patients, older people);
- health workers (including emergency services and non-clinical staff) regardless of whether they
 are a contact of a confirmed case (to protect health workers and reduce the risk of transmission);
- the first symptomatic individuals in a closed setting (e.g. schools, long-term living facilities, prisons, hospitals) to quickly identify outbreaks and ensure containment measures. All other individuals with symptoms related to the close settings may be considered probable cases and isolated without additional testing if testing capacity is limited.

In response to high rates of infection and mortality among health care workers and a concomitant decline in the numbers of essential staff able to work,^{19,20} some countries have begun to expand the categories of people to be tested, as their capacity to do so has increased. Denmark, for example, recently expanded testing criteria to include all people with mild respiratory infections. In addition, in an explicit effort to prevent contagion, where there is a confirmed case among the residents or workers in an institution (hospitals, nursing homes, prisons etc.), all asymptomatic residents and frontline workers in institutions will also be tested, as will all patients admitted to hospital (for 24+ hours).²¹ That country is now moving towards even more widespread testing and contact tracing as part of the second phase of opening up society.²²

- ²¹ Danish Health Authority. Guidelines for handling of COVID-19 in the health system [in Danish]; 4 May 2020. Copenhagen: Danish Health Authority. (https://www.sst.dk/-/media/Udgivelser/2020/Corona/Retningslinjer/Retningslinjer-for-haandtering-af-COVID-19. ashx?la=da&hash=BE6BE868AA53E335DD6, accessed 10 May 2010).
- ²² New testing strategy: Now the government will trace and test contacts of all COVID-19 cases [in Danish] DR (Danish Broadcasting Corporation), 12 May 2020. (https://www.dr.dk/nyheder/indland/ny-teststrategi-nu-vil-regeringen-opspore-og-teste-smittedes-kontakter, accessed 16 May 2020).

¹⁷ Gandhi M, Yokoe DS, Havlir DV. Asymptomatic transmission, the Achilles' heel of current strategies to control Covid-19. 2020. N Engl J Med 2020; Apr 24. doi: 10.1056/NEJMe2009758 [Epub ahead of print].

¹⁸ WHO. Laboratory testing strategy recommendations for COVID-19. Interim guidance, 21 March 2020. Geneva: World Health Organization. (https://apps.who.int/iris/bitstream/handle/10665/331509/WHO-COVID-19-lab_testing-2020.1-eng.pdf, accessed 16 May 2020).

¹⁹ Bernstein L, Boburg S, Sachetti M, Brown E. Covid-19 hits doctors, nurses and EMTs, threatening health system. The Washington Post, 18 March 2020. (https://www.washingtonpost.com/health/covid-19-hits-doctors-nurses-emts-threatening-health-system/2020/03/17/ f21147e8-67aa-11ea-b313-df458622c2cc_story.html, accessed 16 May 2020).

²⁰ Staton B, Hodgson C. Lack of virus testing is hitting NHS staff numbers. The Financial Times, 27 March 2020. (https://www.ft.com/ content/0ef95c7f-f08c-4b1b-ade9-531f40d776e9, accessed 16 May 2020).

Public health specialists in some countries are now calling for the introduction of weekly testing of health care workers and other high-risk groups.^{23,24} A recent study found that weekly screening of health care workers and other at-risk groups, irrespective of symptoms, could reduce their contribution to transmission by between 25–33%.²⁵ In addition to helping to reduce contagion, this approach would also reduce the fear and anxiety among health care workers and their families.²⁶ Spain is one country that plans to introduce such a strategy, and has begun implementing it in several regions.^{27,28}

It should be noted that since the institutional set-up and roles and responsibilities of public health authorities and primary health care organizations vary across countries, the recommended actions listed above should be adapted to the local context. Similarly, the availability of human and material resources, institutional capacity and access to the Internet, smart phones and innovative service delivery platforms may constrain the extent to which countries and territories are able to implement the recommended actions below.

Adapt the roles and responsibilities of primary health care to better respond to COVID-19

The unique and pervasive nature of COVID-19 warrants new approaches to managing it at the primary care level. Given the potential of COVID-19 to overwhelm health services, it is essential that the roles and responsibilities of primary health care be adapted to make the best use of limited resources. Because of the long incubation period during which patients may be infectious, there is a need to quarantine people who have been exposed to the virus or quarantine those who are suspected of having contracted the virus at home, or in other safe housing, for 14 days. During that time period they will need to have access – at least virtually – to the primary health care provider(s) who are able to communicate in the relevant language(s) with culturally appropriate recommendations.

Strengthening the resolutive capacity of primary health care can provide adequate care for people with mild or moderate illness without hospitalization. People with mild and moderate illness need to be isolated at home or in other safe housing until they have recovered, and, during this period, they will also need to have access to their primary health care providers. In addition, their informal caregivers at home, or in other safe housing, must also be instructed in how to minimize the spread of the virus and how to care for a patient in isolation. Moreover, they need to be able to recognize signs that the illness has progressed to a point where it requires urgent attention. In some countries, primary health

²³ Black JRM, Bailey C, Przewrocka J, Kijkstra KK, Swanton CH. COVID-19: the case for health-care worker screening to prevent hospital transmission. Lancet. 2020; 395(10234):1418–1420. (https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30917-X/ fulltext, accessed 16 May 2020).

²⁴ OECD. Testing for COVID-19: A way to lift confinement restrictions. Paris: OECD; 2020. (https://www.oecd.org/coronavirus/policyresponses/testing-for-covid-19-a-way-to-lift-confinement-restrictions/, accessed 16 May 2020).

²⁵ Grassly NC, Pons-Salort M, Parker EPK, White PJ, Ainslie K, Baguelin M, et al. Report 16: Role of testing in COVID-19 control. Imperial College London; 23 April 2020. doi: https://doi.org/10.25561/78439.

²⁶ Shanafelt T, Ripp J, Trockel M. Understanding and addressing sources of anxiety among health care professionals during the COVID-19 pandemic. JAMA; 2020; 7 April. doi:10.1001/jama.2020.5893 [Epub ahead of print].

²⁷ Marcos J, Linde P. Spanish government preparing centers to isolate asymptomatic Covid-19 patients. El Pais; 6 April 2020. (https://english.elpais.com/society/2020-04-06/spanish-government-preparing-centers-to-isolate-asymptomatic-covid-19-patients.html, accessed 16 May 2020).

²⁸ Elelman C. Health worker Covid-19 testing underway in Spain's Costa Almeria. Euroweekly; 1 May 2020 (https://www.euroweeklynews. com/2020/05/01/health-worker-covid-19-testing-underway-in-spains-costa-almeria/, accessed 16 May 2020).

care providers check-in with home isolated patients via phone. Other countries have organized mobile outreach services where health workers visit patients in isolation at home on day 5 or 6 of their illness – a critical point in the development of the disease – and take a blood test, measure blood oxygen saturation and look for other symptoms that indicate a patient might soon become severely ill so that s/he may be hospitalized before this occurs.²⁹ Anecdotal evidence suggests that a patient's chances of surviving a steep decline into a state of severe illness are much improved by being in a hospital when the decline begins.

1. Provide dedicated health care to COVID-19 individual patients and families

Separate care pathways

- Clarify patient pathways to facilitate the most efficient use of health care resources, optimize the existing network of primary health care providers and establish new health care settings for confirmed or suspected patients, if needed.
- Select the most appropriate way(s) to establish testing sites, given the local context. This may include
 a variety of different options such as drive through testing sites, designated tent areas or mobile teams
 to enable testing at home for people whose mobility is limited. Alternatively, in some localities it may be
 desirable to enable primary health care providers to collect specimens for testing.
- Depending on the country context, it may be desirable to arrange transportation to primary health care providers or testing sites to reduce the need for people to use public transportation, which is often very crowded.
- Establish screening of all patients on arrival at all sites using the most up-to-date COVID-19 guidance and case definitions.³⁰
- Separate patient care pathways for COVID-19 and demands for regular primary health care by using digital technologies such as telephone triage and video consultations..

Develop new service delivery modalities and innovative platforms and tools

- Coordinate primary health care services with extra-hospital emergency care (ambulance, telephone helplines to call for urgent care and information and requisition of ambulances for transportation), as well as with social care and public health services for those most vulnerable in society.
- Ensure proper organization and service delivery for newly established ad hoc health care facilities and nonhealth care facilities (e.g. temporary shelters, hotels) for mild or moderately ill patients.

²⁹ Bennhold K. A German Exception? Why the country's coronavirus death rate is low. The New York Times, 2020. (https://www.nytimes. com/2020/04/04/world/europe/germany-coronavirus-death-rate.html?referringSource=articleShare, accessed 16 May 2020).

³⁰ WHO. Global Surveillance for human infection with coronavirus disease (COVID-19). Interim Guidance. Geneva: World Health Organization; 20 March 2020 (https://www.who.int/publications-detail/global-surveillance-for-human-infection-with-novel-coronavirus-(2019-ncov), accessed 3 June 2020)

2. Organize and supervise the care of patients staying at home or in alternate care settings

Supporting family members or other caregivers to enable them to care for COVID-19 patients in their home or alternative care sites serves two purposes. First, it reduces unnecessary hospitalizations and, second, isolating patients reduces the spread of the virus.

- · Empower patients and their caregivers by educating them on infection prevention and control, isolation and recognition of the need for prompt medical attention.
- · Prescribe the use of home isolation.
- · Monitor the health situation of people isolated at home or in alternate care settings by organizing daily calls/ visits to check on their temperature, blood oxidation level (where feasible) and other symptoms.
- Establish a register of people with COVID-19 being treated at home and in alternate care sites.
- Refer COVID-19 patients with highest probability of poor outcomes, irrespective of their legal status, to hospitals: patients with severe and critical illness, and those with mild disease and at risk of poor outcomes.
- · Establish modalities of special attention to people who live alone, using community nurses, community health workers, social services or NGOs to check up on them frequently enough to ensure that their condition does not deteriorate quickly.

3. Strengthen the interface with the care for people in nursing homes and other closed settings such as refugee camps, prisons and detention centres.

People in nursing homes, where transmission is easily amplified, are a particularly vulnerable group, with many highly vulnerable victims and potentially high case fatality rates. Primary health care needs to liaise with these institutions to ensure safe care of their residents to prevent introduction of COVID-19 in these institutions.

- · Implement plans to ensure early recognition, isolation, care, and source control (prevention of onward spread for an infected person). Access to visitors should be restricted and avoided as much as possible. Alternatives to in-person visiting should be explored, including the use of telephones or video, or the use of plastic or glass barriers between residents and visitors.
- Reach out to nursing homes and incorporate their residents in their practice (or dispensarization) lists.
- Train staff in recognizing the conditions for referral of patients to hospitals. Implement strategies for rational use of personal protective equipment, including training and monitoring of practices.

Maintaining the delivery of essential (non-COVID-19) services during the pandemic

When a health system becomes overwhelmed due to rapidly increasing demand generated by a COVID-19 outbreak both direct mortality from the outbreak and indirect mortality from vaccinepreventable and treatable conditions can increase dramatically. Experience during the 2014-2015 Ebola outbreak, for example, indicate that deaths due to measles, malaria, HIV/AIDS, and tuberculosis attributable to health system failures exceeded those due to Ebola. It is therefore essential to ensure equitable access to essential service delivery throughout the pandemic to minimize excess mortality due to health system failures. WHO has published operational guidance on maintaining essential services across the entire health system,³¹ the following focuses on how to maintain essential services delivered at the primary health care level.

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³¹ WHO. Maintaining essential health services: operational guidance for the COVID-19 context. Geneva: World Health Organization; 1 June 2020. (https://www.who.int/publications-detail/10665-332240, accessed 3 June 2020)

Existing primary health care services must be reassessed to determine which non-COVID-19 services are essential and to find innovative ways to ensure their continued delivery. Under normal circumstances, primary health care (ideally) offers a set of comprehensive preventive, promotive, curative, rehabilitative and palliative health services through the life-course that help to keep populations healthy and reduce disability and premature mortality.³² While some of these services may be postponed for a period of time without measurable effect on health outcomes, others are essential for diagnosing and treating non-COVID-19 illness or managing noncommunicable diseases. Without continuous treatment, patients with diabetes, hypertension or heart disease may, for example, experience complications that require hospitalization or result in death. Pregnant women will need to have a certain minimum number of prenatal care visits, and essential preventive health services, such as routine immunizations, must also continue wherever services can be conducted under safe conditions.³³ While all of these should be prioritized, the precise selection of essential services must be guided by health system context and the local burden of disease. However, maintaining continuity of care is particularly important to vulnerable and marginalized populations and must be provided everywhere, regardless of legal status.

A roadmap for a phased reallocation of routine comprehensive service capacity towards essential services must be established. With a relatively limited COVID-19 caseload, primary health care providers may have the capacity to maintain routine service delivery in addition to the additional COVID-19 responsibilities outlined above. When caseloads are high, and/or the health workforce is reduced due to infection of health workers, strategic shifts are required to ensure that increasingly limited resources provide maximum benefit for a population. Triggers/thresholds that activate a phased reallocation of routine comprehensive service capacity towards essential services must therefore be established.

COVID-19 will have long-term, potentially traumatic, psychological consequences not only for the family and friends of victims of the virus, but also for society at large that will increase the demand for mental health services in primary health care. The need for long-term physical distancing and self-isolation at home or in alternative care settings is stressful for all involved, whether healthy or ill. In addition, a large number of people will lose loved ones, often without the ability to attend funerals. Children of parents with addiction problems and victims of domestic violence are particularly at risk when they are forced to stay at home all day, every day. The economic impact of the pandemic will also have serious negative health consequences for those who lose their jobs and livelihoods. Evidence from previous financial crises indicates that economic stress negatively impacts both people's physical and mental health.³⁴ Collectively, these factors are likely to vastly increase the need for psychological counselling services, medication and other services to treat mental illnesses and/or to strengthen people's coping skills and increase their resilience. This collateral damage of the COVID-19 pandemic should be addressed as soon as possible to minimize the long-term consequences of the pandemic.

³² WHO. Declaration of Alma-Ata. International Conference on Primary Health Care: Alma-Ata, USSR, 6–12 September 1978/Jointly sponsored by the World Health Organization and the United Nations Children's Fund. Geneva: World Health Organization; 1978. (http://www.who.int/publications/almaata_declaration_en.pdf, accessed 16 May 2020).

³³ WHO. Guiding principles for immunization activities during the COVID-19 pandemic. Interim Guidance. 26 March 2020. Geneva: World Health Organization; 2020. (https://apps.who.int/iris/bitstream/handle/10665/331590/WHO-2019-nCoV-immunization_services-2020.1eng.pdf, accessed 16 May 2020).

³⁴ WHO. Impact of economic crises on mental health. Copenhagen: WHO Regional Office for Europe; 2011 (http://www.euro.who.int/__data/assets/pdf_file/0008/134999/e94837.pdf, accessed 16 May 2020).

1. Review and revise the scope of primary health care services to be provided during the epidemic to maximize the ability to respond to the COVID-19 epidemic while preserving essential services

Develop a list of context-specific essential primary health care services that must be maintained.

- Include only those that would have a negative impact on the population if postponed/cancelled. High priority
 categories include: essential prevention for communicable diseases, particularly vaccination; services
 related to reproductive health, including care during pregnancy and childbirth; care of vulnerable populations,
 such as young infants and older adults; provision of medications and supplies for the ongoing management
 of chronic diseases, including mental health conditions; management of emergency health conditions and
 common acute presentations that require time-sensitive intervention to the extent that they can be treated
 at the primary health care level; and auxiliary services, such as basic diagnostic imaging and laboratory
 services.
- Postpone or suspend all non-essential services and cancel all group activities or services (e.g. education classes, exercise programmes) or offer them in an online format, where feasible.

Create a roadmap for progressive phased reduction of services:

 Establish triggers/thresholds that activate a phased reallocation of routine comprehensive service capacity towards essential services.

Introduce new or expanded services to address needs arising from the COVID-19 pandemic:

- Strengthen the provision of mental health services, particularly counselling and treatment of depression and anxiety disorders, to address the many sources of stress experienced by all members of society.
- Advise all primary health care providers to be extra alert to signs of domestic violence, which evidence suggests is on the rise. Children of alcoholics and of abusive parents are often particularly vulnerable when they are unable to go to school, as it leaves them without any break from their stressful home environments.

As countries enter later phases of the pandemic, when they are seeing lower numbers of new cases and community transmission is under control, it is essential that they strengthen the dual-track of health service delivery, balancing COVID-19 services with the recovery of regular services. This will require dealing with the accumulated demand from services that may have been reduced during the height of their outbreaks. Priorities may include catch-up programmes for immunizations; preventive health services; chronic disease management; and mental health care. For more detailed policy directions on how to manage the dual-track health system during the transition phase, please refer to recent WHO guidance on "strengthening and adjusting public health measures throughout the COVID-19 transition phases."³⁵

2. Develop new modalities of work and service delivery to facilitate business continuity of regular primary health care

- Establish effective patient flow (screening, triage, and targeted referral) (see Section 3.2)
- · Establish outreach mechanisms as needed to ensure delivery of essential services
- Introduce tele-working for staff, particularly primary health care physicians and nurses in self-isolation to enable them to continue to work.
- Allow remote/electronic prescribing, e-consultations or web-based consultations, e-referrals.
- Extend the duration of prescriptions (e.g. to 6 months or 1 year) for patients with well-managed chronic conditions, such as hypertension and diabetes.

³⁵ WHO. Strengthening and adjusting public health measures throughout the COVID-19 transition phases. Copenhagen: WHO Regional Office for Europe; 2020 (http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/technical-guidance/2020/ strengthening-and-adjusting-public-health-measures-throughout-the-covid-19-transition-phases.-policy-considerations-for-the-whoeuropean-region,-24-april-2020, accessed 8 June 2020)

3. Develop innovative tools and mechanisms to reduce the burden on primary health care providers

Examples include:

- Establishment of telephone hotlines dedicated to COVID-19 to divert general enquiries away from emergency numbers.
- Development of basic health assessment tools online or in apps.
- Establishment of online clearinghouses of information to function as repositories for all the relevant guidance and answers to frequently asked questions related to COVID-19.
- Development of digital tools such as the online assessment tools to reduce the number of cases that need to be assessed by primary health care providers. Such tools should be available in multiple languages to enable minority groups, migrants and refugees to access them.
- Reduce the administrative burden on primary health care providers and eliminate time-consuming reporting requirements.
- Eliminate the regulation requiring first-day sick leave certification by a physician for absences from work; allowing, for example, absences from work for up to the 14 days required for self-isolation after exposure to suspected COVID-19 cases.

System-level recommendations to ensure effective implementation of the recommended actions

The recommended actions mentioned in the previous sections are numerous and complex and, hence, challenging to implement. Indeed, they are unlikely to succeed in the absence of supporting systemlevel changes to ensure that policies and regulations are modified, if needs be, and that the necessary resources – financial, human and material – are available.

Since primary health care is the central mechanism to maintain essential health services and share the workload to respond to COVID-19, it is essential to bridge the governance mechanism of the emergency response and the governance mechanism for primary health care services at national and sub-national levels. To optimize the role of primary health care, the following roles and responsibilities will need attention:

- Overseeing the development and adaptation of policies, regulations, and standard operating procedures to enable primary health care providers to respond more effectively to COVID-19 and retain functionality to provide essential health services.
- Careful monitoring service delivery patterns particularly for essential health services and coordinating reprioritization by working through relevant authorities to coordinate with public and private service providers and reorienting referral pathways.
- Monitoring and ensuring that the needed health system inputs are available:
 - health workforce;
 - · personal protective equipment and supplies;
 - · medicines and health technologies;
 - ICT (establishment of central registry, apps etc.);
 - education materials, public information, including translation into different languages to address the needs of minority groups, refugees and migrants.
- Monitoring resource needs and mobilizing adequate financing for the intensified primary health care response and needed health system inputs. Ensuring that the needs of vulnerable and marginalized populations, including migrants and refugees are considered when developing national responses to the pandemic.
- Monitoring/analysing the epidemic and the ability of the primary health care system to effectively tackle it and ensuring that corrective actions are taken, when needed.

1. Bridge the governance mechanism of the emergency response and the governance mechanism for primary health care

During an emergency such as the COVID-19 pandemic, it is essential that the system – whether purely public, partially or totally private – operates as a single entity, creating a seamless pool of resources for coping with COVID-19 and contributing to combating the epidemic in a coordinated manner.

- Strengthen the stewardship of primary health care, ensuring that all primary health care providers actively
 engage in service provision and coordinate with public health infrastructure.
- · Conduct a functional mapping of primary health care facilities, including those in public and private systems.
- Link multiple primary health care practices (when applicable) so single practitioner or small group practices are able to liaise with other practices in neighbourhoods to support each other and establish shared services (e.g. clinics for suspected cases).

2. Adopt policies to adequately resource primary health care services

- Ensure adequate financing of primary health care for both COVID-19 and essential health services by, for example, increasing the existing budget allocations or by reshaping primary health care purchasing models (where appropriate).
- · Prevent financial hardship by making all primary health care services free of charge.
- Expand/strengthen population empanelment to ensure universal access to primary health care (all persons have an identified primary health care provider), particularly vulnerable and high-risk groups, including migrants, refugees and asylum seekers.

3. Take steps to ensure adequate levels of human resources during peak periods of the epidemic

- · Mobilize additional community resources; for example, networks of trained community health workers.
- · Collaborate with nongovernmental organizations (NGOs) and patient associations.
- Retrain existing health care workers to enable them to care for more severely ill COVID-19 patients.
- Attract health care providers who are not currently working in the system to increase the pool of professionals and train them for new tasks and safety.
- Train nonmedical personnel on functions that, with appropriate training, can be carried by them (e.g. temperature and blood pressure measurements) to alleviate the burden on other health care providers.

4. Effectively protect the primary health care health workforce

- Train all primary health care health workers on infection prevention and control measures, including
 application of standard and transmission-based precautions, rational use of personal protective equipment,
 etc. Priority should be given to train on early recognition, isolation, care, and source control (prevention of
 onward spread for an infected person).
- All health care institutions that come into direct contact with patients, such as primary health care facilities, must have protocols of action that are regularly reviewed, and contingency plans for operating in acute crisis situations.
- Identify staff members who have long-term medical problems such as those on immune-suppressors, cancer treatment, diabetes, hypertension or asthma and move them to non-patient-facing roles.
- Protect the mental health and well-being of the primary health care workforce by, for example, setting up a mental health hotline to support and advise health workers during the pandemic.

5. Strengthen logistic capabilities to ensure the supply chain

- Ensure an adequate supply of essential medicines and health technologies.36
- Recommend medicines in line with national guidelines for the management of COVID-19 infection.
- Be aware of problems with supply of commonly used medicines and where possible maintain suitable levels of buffer stocks to ensure supply to regular customers.
- Ensure continuity of supply for chronic medical conditions. Pharmacists must be aware of any special provisions to enable supply of medicines, such as asthma inhalers, contraceptives, antihypertensive medicines and medicines for heart and kidney disease.
- Ensure an adequate supply of personal protective equipment, such as masks, goggles or face shields, gloves, gowns, hand hygiene supplies, and products for cleaning and disinfection of environmental and medical equipment are readily available for the duration of the crisis.
- Ensure an adequate supply of diagnostic tests and kits for taking the samples; this includes diagnostic equipment, reagents and trained personnel as well as the means to perform, process and quickly communicate the results.

³⁵ WHO. Strengthening the health systems response to COVID-19. Technical guidance #3. Supply of essential medicines and health technologies. Copenhagen: WHO Regional Office for Europe; 2020. (http://www.euro.who.int/_data/assets/pdf_file/0007/437470/TG3-AccessSupplyMedicines-eng.pdf?ua=1, accessed 16 May 2020).

Additional resources

For operational guidance on practical actions that countries can take at national, subregional and local levels to reorganize and safely maintain access to high-quality, essential health services in the pandemic context, please refer to: Maintaining essential health services: operational guidance for the COVID-19 context, https://www.who. int/publications-detail/10665-332240.

For guidance on the role of community-based health care in the pandemic context, please refer to: Communitybased health care, including outreach and campaigns, in the context of the COVID-19 pandemic, https://www. who.int/publications-detail/community-based-health-care-including-outreach-and-campaigns-in-the-context-ofthe-covid-19-pandemic

For COVID-19 case definitions, please refer to: Global Surveillance for human infection with coronavirus disease (COVID-19), https://www.who.int/publications-detail/global-surveillance-for-human-infection-with-novel-coronavirus-(2019-ncov).

For guidance on the use of masks, please refer to: Advice on the use of masks in the context of COVID-19, https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak.

For guidance on case management of COVID-19, please refer to: Operational considerations for case management of COVID-19 in health facility and community, https://www.who.int/publications-detail/operational-considerations-for-case-management-of-covid-19-in-health-facility-and-community.

For guidance on infection prevention and control at the facility level, please refer to: Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected, https://www.who.int/ publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125.

For guidance on home care for patients and managing their contacts, and for contact definitions, please refer to: Home care for patients with COVID-19 presenting with mild symptoms and management of their contacts, https:// www.who.int/publications-detail/home-care-for-patients-with-suspected-novel-coronavirus-(ncov)-infectionpresenting-with-mild-symptoms-and-management-of-contacts.

For recommendations on strengthening the health system response to COVID-19, please refer to: Strengthening the health system response to COVID-19: Recommendations for the WHO European Region, https://euro.sharefile. com/share/view/s5af6405658d4b0eb.

For recommendations on testing and scaling-up the capacity to implement them, please refer to: Global surveillance for COVID-19 caused by human infection with COVID-19 virus, https://apps.who.int/iris/bitstream/handle/10665/331506/WHO-2019-nCoV-SurveillanceGuidance-2020.6-eng.pdf, and Laboratory testing strategy recommendations for COVID-19, https://apps.who.int/iris/bitstream/handle/10665/331509/WHO-COVID-19-lab_testing-2020.1-eng.pdf.

For guidance on refugee and migrant health in relation to COVID-19, please refer to: Interim guidance for refugee and migrant health in relation to COVID-19 in the WHO European Region, http://www.euro.who.int/__data/assets/pdf_file/0008/434978/Interim-guidance-refugee-and-migrant-health-COVID-19.pdf.

For guidance on key considerations for when, under what conditions and how to consider safe and gradual easing of large-scale restrictive public health measures while strengthening other core public health measures together with personal protective measures and individual physical distancing, please refer to http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/technical-guidance/2020/strengthening-and-adjusting-public-health-measures-throughout-the-covid-19-transition-phases.-policy-considerations-for-the-who-european-region,-24-april-2020.

For Inter-Agency Standing Committee guidance on refugees in camps and camp-like settings, please refer to: Interim Guidance on Scaling-up COVID-19 Outbreak in Readiness and Response Operations in Camps and Camplike Settings (jointly developed by IFRC, IOM, UNHCR and WHO), https://interagencystandingcommittee.org/ other/interim-guidance-scaling-covid-19-outbreak-readiness-and-response-operations-camps-and-camp.

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