



Bosnia and Herzegovina



COVID-19 RESPONSE AND IMPACT ON HIV AND TB SERVICES

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Executive Summary

Population ¹	3,267,000
COVID-19 deaths per 100,000 population (at 5 March 2021)	159.17
COVID-19 lockdown(s) initiated	Yes, but only for certain populations (March 2020)
Disruption to harm reduction services	Yes, NSEP
Reduced TB detection	Yes
Integrated TB and COVID-19 testing	Yes
Reduced access to clinicians	Yes
Reduced access to peer support and/or psychosocial support	Yes
Stockouts of HIV or TB medications	unknown

¹ The Bosnia and Herzegovina Agency for Statistics' latest figures are from a 2013 census (publication date 2020), i.e. that the population is 3,531,159 persons. Agency for Statistics of Bosnia and Herzegovina, 'Demography 2019' (2020) http://www.bhas.ba/data/Publikacije/Bilteni/2020/DEM_00_2019_TB_0_HR.pdf accessed 5 March 2021. This data is likely to be outdated. Thus, data from Worldometer is used. <https://www.worldometers.info/world-population/bosnia-and-herzegovina-population> accessed 5 March 2021

Bosnia and Herzegovina (abbreviated BiH) is an upper middle-income country of 3.3 million people bordering Serbia, Montenegro, and Croatia. The health system is characterised by ‘extreme fragmentation’². This is largely an effect of the peace agreement reached in 1995, the Dayton Agreement, which led to the BiH being comprised of the Federation of Bosnia and Herzegovina (FBiH) and the Republic of Srpska (RS), with the Brčko District (BD), which is formally part of both entities³.

As a result, the FBiH has 10 cantons, and together with the RS and the BD, each are responsible for the financing, management, organisation, and provision of healthcare⁴. In addition to this, there are 13 different subsystems of healthcare insurance in the country, with two different laws governing health coverage⁵. From a governance perspective, solely within the FBiH there is a network of 11 ministries of health (10 cantonal and 1 federal). In addition, there is growing inequality in health, with the share of private expenditure in overall health expenditure rising from 28% in 2014 to 29.7% in 2020⁶.

These facts raise crucial questions about coordination and preparedness in the global COVID-19 pandemic, and the corresponding effects on the HIV and TB response. As of February 2021, the death toll from COVID-19 in BiH stands at 4,745 persons, higher than other countries in the region with similar population sizes, potentially due to the fragmented and insufficiently resourced health system and documented acceptance of COVID misinformation⁷. The COVID-19 response also saw pandemic profiteering through a state contract to procure ventilators through a raspberry farm⁸. The first cases of COVID-19 in BiH occurred in the first week of March 2020, and they were imported from Italy and other European countries⁹. The government imposed major restrictive measures beginning the week of 16 March 2020, including closure of national borders, restrictions on all public gatherings, as well as ordering the closure of cafes, bars, restaurants, and cultural institutions, cited as being key factors in low death rates in the beginning of the pandemic¹⁰.

² Marko Martić and Ognjen Đukić, ‘Health Care Systems in BiH: Financing Challenges and Reform Options?’ Friedrich Ebert Stiftung (October 2017) 6 <https://library.fes.de/pdf-files/bueros/sarajevo/14124.pdf> accessed 23 December 2020

³ Izet Pajević, Mevludin Hasanović, Esmina Avdibegović, and others, ‘Organization of Mental Healthcare in Bosnia and Herzegovina during Coronavirus Disease 2019 Pandemic’ (2020) 62(Suppl 3) *Indian Journal of Psychiatry* S479–491

⁴ Ibid

⁵ Hena Pejdah, ‘Healthcare in Bosnia and Herzegovina: A Complicated System’ *Borgen Magazine* (20 October 2020) <https://www.borgenmagazine.com/healthcare-in-bosnia-and-herzegovina> accessed 23 December 2020

⁶ World Bank Data, ‘Domestic Private Health Expenditure (% of Current Health Expenditure) — Bosnia and Herzegovina’ World Bank <https://data.worldbank.org/indicator/SH.XPD.PVTD.CH.ZS?locations=BA> accessed 23 December 2020

⁷ Gojko Veselinovic, Andy Heil, and Lejla Omerajic-Catic, ‘In the Balkans’ Most Divided Country, COVID Vaccine Cuts Both Ways’ *Radio Free Europe* (13 December 2020) <https://www.rferl.org/a/bosnia-covid-vaccine-cuts-both-ways/30998431.html> accessed 5 March 2021

⁸ Aida Djugum, Edib Bajrovic, and Andy Heil, ‘How did a Bosnian Raspberry Farm Get a State Contract to Acquire 100 Ventilators?’ *Radio Free Europe* (5 May 2020) <https://www.rferl.org/a/bosnia-ventilators-scandal-covid-19-raspberry-farm-multimillion-deal-procurement/30594315.html> accessed 5 March 2021

⁹ Jurica Arapovic and Siniša Skočibušić, ‘The first Two Months of the COVID-19 Pandemic in Bosnia and Herzegovina: Single-center Experience’ (2020) 20(3) *Bosn J Basic Med Sci* 396–400

¹⁰ Ibid

In July 2020, however, cases started to rise substantially in a number of cantons¹¹. Number of cases reached an all-time high in mid-October, but in mid-November the OECD noted that the number of recoveries were compensating the number of new infections¹². This trend was also observed at cantonal level, with crisis staff of the Sarajevo canton Ministry of Health also noting in December 2020 that recoveries there exceeded new infections¹³. Given pressures on health systems and facilities due to the pandemic, key questions remain about whether HIV and/or TB services have been impeded and/or negatively affected as a result of the focus of resources, whether financial or capacity-wise, on COVID. Overall, there is low prevalence of HIV in the general population in BiH, although the proportion of cases among men who have sex with men have doubled in a six-year period (from 17.2% in 2009 to 39.0% in 2015¹⁴).

There are further socio-political events that may drive HIV — one report states that a quarter of Bosnian youth have no education, employment, or training, that there is little institutional support for young people, and that they face risks related to drug dependency¹⁵. According to Harm Reduction International, there are approximately 15,000 people who inject drugs in the country, with heroin being the predominant injection drug¹⁶. There are seven drop-in centers that work on harm reduction, including the exchange and distribution of injecting equipment, providing information, counseling, field work and the distribution of condoms for people who inject drugs. Methadone centers in Bosnia and Herzegovina are in Sarajevo, Zenica, Mostar, Sanski Most, Doboje and Banja Luka¹⁷. In a 2017 journal article, MSM in BiH described a ‘stiff and outdated system’ that did not meet their specific needs, and that doctors had negative attitudes towards the

¹¹ Maja Beker, ‘Dijelovi Bosne i Hercegovine Koji su Najteže Pogođeni Korona Virusom (Parts of Bosnia and Herzegovina Most Severely Affected by the Coronavirus)’ N1 (24 July 2020) <http://ba.n1info.com/Vijesti/a450470/Dijelovi-Bosne-i-Hercegovine-koji-su-najteze-pogodjeni-korona-virusom.html> accessed 28 December 2020

¹² OECD, ‘The COVID-19 Crisis in Bosnia and Herzegovina’ OECD (30 November 2020) <https://www.oecd.org/south-east-europe/COVID-19-Crisis-in-Bosnia-and-Herzegovina.pdf> accessed 23 December 2020

¹³ Aldijana Hadzic, ‘BiH: U Sarajevu Broj Oporavljenih od COVID-19 opet Veći od Novozaraženih (BiH: In Sarajevo, the Number of People Recovered from COVID-19 is Again Higher than the Number of Newly Infected)’ Anadolu Agency (4 December 2020) <https://www.aa.com.tr/ba/balkan/bih-u-sarajevu-broj-oporavljenih-od-covid-19-opet-veći-od-novozaraženih/2065526> accessed 28 December 2020

¹⁴ Stela Stojisavljevic and B Matejic Djikanovic, ‘Risk factors for HIV among an MSM population in Bosnia and Herzegovina’ (2018) 28(Suppl 4) European Journal of Public Health 54

¹⁵ UNDP, ‘Economic Impact Assessment of COVID-19 in Bosnia and Herzegovina’ UNDP (May 2020) 16 <https://www.ba.undp.org/content/bosniaandherzegovina/en/home/library/publications/EconomicImpactAssessment.html> accessed 23 December 2020

¹⁶ Asocijacija Margina, ‘Analiza Isplativosti: Implementacije Programa Za Smanjenje Štete Od Upotrebe Droga U FBIH (Implementation Program for Reduction of Drug Use in FBIH)’ (March 2014) 18 <http://filesver. idpc. net/library/Cost-Effectiveness-Analysis-Harm-Reduction-Bosnia-Herzegovina.pdf> accessed 28 December 2020

¹⁷ socijacija Margina, ‘Analiza Isplativosti: Implementacije Programa Za Smanjenje Štete Od Upotrebe Droga U FBIH (Implementation Program for Reduction of Drug Use in FBIH)’ (March 2014) 24 <http://filesver. idpc. net/library/Cost-Effectiveness-Analysis-Harm-Reduction-Bosnia-Herzegovina.pdf> accessed 28 December 2020

MSM population¹⁸. PrEP is only available for free at point of care through the public sector or through insurance, however only in Sarajevo¹⁹.

TB incidence is 27 per 100,000²⁰, which is approximately the European average. While TB incidence has gradually reduced in the past decade, a number of issues were highlighted as key problems in TB service provision in a 2013 WHO report, including insufficient TB education between clinical staff, a heavy reliance on the Global Fund for TB drug management²¹, inconsistent data reporting, and at the time, a lack of availability of TB drug formulations for children, leading to physicians prescribing dosages at their own discretion²².

In this report, we reviewed local press articles and interviewed key stakeholders in the COVID-19, TB, and HIV responses, including Dr Siniša Skočibusić (infectious diseases specialist, University Clinical Hospital, Mostar), Prof Dr Antonija Verhaz (infectious diseases specialist, University Clinical Centre, Republika Srpska), Dr Velimir Bereš (Head of the Clinic for Lung Diseases of Brčko District Hospital), Aida Kurtovic (Director, Partnerships in Health), Denis Dedajic (President, Association Margina), and a 24-year old man from the MSM community in Sarajevo.

¹⁸ Stela Stojisavljevic, Bosiljka Djikanovic, and Bojana Matejic, “‘The Devil has entered you’: A qualitative study of Men Who Have Sex With Men (MSM) and the stigma and discrimination they experience from Healthcare Professionals and the General Community in Bosnia and Herzegovina’ (2017) 12(6) PLoS ONE e0179101

¹⁹ Ellen Moseholm, Yvonne Gilleece, Ben Collins, Justyna D. Kowalska, Marta Vasylyev, María Jesús Pérez Elía, Gus Cairns, Karoline Aebi-Popp, ‘Achievements and gaps to provide Pre-Exposure Prophylaxis (PrEP) for women across the European Region — Results from a European survey study’ (2020) Journal of Virus Eradication <https://doi.org/10.1016/j.jve.2020.100026>

²⁰ WHO, Global Tuberculosis Report 2020, Tuberculosis Profile: Bosnia and Herzegovina (2020) [https://worldhealthorg.shinyapps.io/tb_profiles/?inputs &lan=%22EN%22&entity_type=%22country%22&iso2=%22BA%22](https://worldhealthorg.shinyapps.io/tb_profiles/?inputs%20&lan=%22EN%22&entity_type=%22country%22&iso2=%22BA%22) accessed 29 December 2020

²¹ Ajla Džanko and Dženan Kovacic, ‘Tuberculosis in Bosnia & Herzegovina: Analysis, Criticism and New Concerns’ (2019) [https://www.researchgate.net/publication/333045627 Tuberculosis in Bosnia and Herzegovina Analysis Criticism and New Concerns](https://www.researchgate.net/publication/333045627_Tuberculosis_in_Bosnia_and_Herzegovina_Analysis_Criticism_and_New_Concerns) accessed 28 December 2020

²² Ibid



The COVID-19 Response

5 March 2020

Health officials from Republika Srpska confirm Bosnia and Herzegovina's first COVID cases – a father and son who had returned from Italy

14 March 2020

'Quarantine tents' announced at borders to triage entrants into the country

21 March 2020

The Federation of Bosnia and Herzegovina announce curfews from 18:00-05:00, later amended to 20:00-05:00

27 March 2020

Restrictions extended. People over 65 and under 18 banned from leaving home, and fines imposed for violations. (Federation of Bosnia and Herzegovina and Republika Srpska)

21 May 2020

Authorities in Republika Srpska announce relaxation of restrictions and reopening of airports.

Cases begin to rise in June

15 October 2020

Regulation requiring mandatory masking outdoors comes into force (Sarajevo)

6 November 2020

BiH reaches peak of new cases, with 1,921 new daily infections.

10 November 2020

FBiH government injects €5 million emergency funds to ease pressures on public hospitals

At time of writing, BiH has the sixth highest COVID-19 death rate per capita in the world²³. The COVID-19 response brought to the fore key weaknesses within the health system, including insufficient staffing, poor working conditions for health staff, COVID denialism, and the effects of a fragmented health system on the ability to deliver a coordinated health response. Initial responses seemed promising. The first cases, a father and son duo returning from Italy, were confirmed on 5th March 2020. On 14th March 2020, quarantine tents were set up at borders, enabling returnees to receive medical examinations before being sent to quarantine facilities for a minimum of 14 days²⁴.

Efforts to trace contacts of all positive cases were instituted immediately, although as cases rose, modifications as to how contact tracing was carried out and by who were necessary. Dr Siniša Skočibusić, infectious diseases specialist from the University Clinical Hospital in Mostar, a city in Southern Bosnia and Herzegovina in the canton of Herzegovina-Neretva, described to us how there needed to be not just an expansion of the workforce doing contact tracing, but also changes in how contact tracing was carried out.

Contact tracing was done by the epidemiologists. Mostly at the beginning, they did it in person. But since the amount of work increased, they (had to) continue to work with the phone. And when they couldn't work with the phone, (because) it was so much, then the primary care doctors, family medicines started to work, also. It was started from the moment we had our first (COVID-19) patient, because at that moment, the epidemiologist came and he went to the family of the first patient and to the neighbours, but later when they were much more people they were very occupied and they could not follow all the traces.

Curfews and other restrictions were instituted on 21st March 2020²⁵, and on 27th March, these restrictions were extended for further cancellation of all public gatherings in FBiH, including cinemas, concert halls, public swimming pools, shopping malls, fitness centres, and beauty salons, to name a few²⁶. At the same time, people over 65 and under 18 were banned from leaving home and

²³ Statista, 'Coronavirus (COVID-19) deaths worldwide per one million population as of February 5, 2021, by country' <https://www.statista.com/statistics/1104709/coronavirus-deaths-worldwide-per-million-inhabitants> accessed 5 February 2021

²⁴ Faktor 'Dodik: Od ponedjeljka vojska izlazi na granicu i postavlja šatore za karantin (Dodik: As of Monday, the Army is Going to the Border and Setting up Quarantine Tents)' Faktor (14 March 2020) <https://faktor.ba/vijest/dodik-od-ponedjeljka-vojska-izlazi-na-granicu-i-postavlja-satore-za-karantin/74164> accessed 5 February 2021

²⁵ Klix, 'Federalni štab donio naredbu: Od sutra navečer zabrana kretanja od 18 do 5 sati (The Federal Headquarters issued an order: From tomorrow evening a ban on movement from 6 to 5 p.m.) Klix (21 March 2020) <https://www.klix.ba/vijesti/bih/federalni-stab-donio-naredbu-od-sutra-navecer-zabrana-kretanja-od-18-do-5-sati/200321099> accessed 5 February 2021

²⁶ Federation of Bosnia and Herzegovina, 'Na današnjoj 9. vanrednoj sjednici FŠCZ produžen rok primjene za 14 prethodno donijetih naredbi (At Today's 9th Extraordinary Session of the FŠCZ, The Application Period was Extended for 14 Previously Issued Orders' (27 March 2020) <http://www.fucz.gov.ba/na-danasnjoj-9-vanrednoj-sjednici-fscz-produzen-rok-primjene-za-14-prethodno-donijetih-naredbi/?fbclid=IwAR2FtpphFmftcQH3vPvxm5mYRmmNjT34Z677RbgQne-IwuKW5ErmeQZSL8> accessed 5 February 2021

subject to fines for violations of rules — leading to critique by disability rights activists²⁷. Pursuant to a constitutional court challenge, these restrictions began to be eased gradually at cantonal level beginning late April 2020²⁸.

Due to these, cases remained relatively stable through to June 2020²⁹, when new cases began to rise from double digits to triple digits. In July 2020, cases started to rise substantially in a number of cantons, with one infectious diseases specialist from Sveti Vračevi Hospital in Bijeljina, a city in Republika Srpska, commenting on the need to return to more restrictive measures to ensure survival of the economy³⁰. As cases continued to rise, in October 2020, Sarajevo canton instituted outdoor mandatory masking, with penalties ranging from 500–1500 Bosnian marks (approximately €250–750) per violation³¹. Cases reached a peak in November 2020.

This has been attributed to a number of factors. Epidemiologist Željko Ler, in conversation with Radio Slobodna, stated that there was ‘irresponsible organisation of gatherings of a large number of people... without respecting the basic measures ordered by crisis staff’, the premature relaxation and non-compliance with personal self-protection measures, and that the arrival of colder weather meant more social and work contact with others in indoor environments³². In a separate interview with Radio Sarajevo, Ler commented that there had been ‘indiscipline’ as regards protective measures such as physical distancing and mask wearing³³.

Dr Skočibusić, elaborated further on more systemic issues that prevented a coordinated response:

²⁷ Emina Cerimovic, Margaret Wurth, and Bethany Brown, ‘Bosnia and Herzegovina’s Coronavirus Curbs on Children and Older People and Ill-Conceived’ Balkan Insight (2 April 2020) <https://balkaninsight.com/2020/04/02/bosnia-and-herzegovinas-coronavirus-curbs-on-children-and-older-people-are-ill-conceived> accessed 5 February 2021

²⁸ Reuters, ‘Bosnian Region Eases Lockdown on Seniors, Children After Court Ruling’ Reuters (24 April 2020)

²⁹ COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University <https://www.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6> accessed 8 February 2021

³⁰ Maja Beker, ‘Dijelovi Bosne i Hercegovine Koji su Najteže Pogođeni Korona Virusom (Parts of Bosnia and Herzegovina Most Severely Affected by the Coronavirus)’ N1 (24 July 2020) <http://ba.n1info.com/Vijesti/a450470/Dijelovi-Bosne-i-Hercegovine-koji-su-najteze-pogodjeni-korona-virusom.html> accessed 28 December 2020

³¹ Aida Đugum and Dragana Erjavec, ‘Zdravstveni sistem BiH je iscrpljen, upozoravaju ljekari dok raste broj zaraženih («BiH’s health system is exhausted,» doctors warn as the number of those infected grow)’ Radio Slobodna Evropa (23 October 2020) <https://www.slobodnaevropa.org/a/rast-broj-zarađenih-zdrstveni-sistem-bih/30908960.html> accessed 5 February 2021

³² Aida Đugum and Dragana Erjavec, ‘Zdravstveni sistem BiH je iscrpljen, upozoravaju ljekari dok raste broj zaraženih («BiH’s health system is exhausted,» doctors warn as the number of those infected grow)’ Radio Slobodna Evropa (23 October 2020) <https://www.slobodnaevropa.org/a/rast-broj-zarađenih-zdrstveni-sistem-bih/30908960.html> accessed 5 February 2021

³³ Radio Sarajevo, ‘Epidemiolog Željko Ler za Radiosarajevo. ba: Šta je uzrok rasta broja oboljelih?(Epidemiologist Željko Ler for Radiosarajevo. ba: What is the cause of the increase in the number of patients?)’ (7 June 2020) <https://radiosarajevo.ba/metromahala teme/epidemiolog-željko-ler-za-radiosarajevoba-sta-je-uzrok-rasta-broja-oboljelih/379458> accessed 8 February 2021

Our healthcare system is not strong enough to give a good response. Also, the managing of COVID health care system and the COVID pandemic is much more involved with politics than with experts... One of the problems is that the governing system is fragmented. But another problem is that some health care decision makers are not focused (on the fact) that COVID is a major problem, but rather more people wanting to continue life as it was before... In medicine, we have strong individual personalities. It is very hard to break those personalities and organise a functional healthcare system.

He noted, however, that most patients were treated in facilities pre-existing the pandemic, and that only a small amount of patients were treated in newly constructed facilities.

Pressures on health facilities were observed in a number of high burden areas; in one health centre in Živinice, one of the most populated cities located in the Tuzla canton in northeastern BiH, while a COVID outpatient clinic had been established, that the COVID-19 response had exhausted the technical and human resource capacity of the health centre generally, and that it was necessary to construct a specialised COVID-19 hospital³⁴. The pandemic also saw the transformation of one psychiatric hospital and another psychiatric ward within a general hospital into departments for COVID-19 patients, and the introduction of telephone and/or Skype/

Viber communications for psychological support and for those who were unable to attend mental health centres in person³⁵. This raises important questions about access to psychosocial support for people receiving TB treatment, and access to addiction treatments. In addition, COVID-19 has led to increased physiological and psychological demands on health staff as well, affecting the ability to support patients.

In the words of Dr Skočibusić:

(Patients) need social and emotional support. And there is not enough doctors and nurses that can provide them all of that... And given the fear of infection we spend hours in personal protective equipment and it is really hard, because there are high temperatures under personal protective equipment. You sweat, you get lines around your eyes, your physical and physiological needs need to be postponed until you finish your job because you cannot go to toilet at every moment when you need it and you cannot eat when you want... And so PPE has created this problem during our treatment of COVID-19 patients.

Prof Dr Antonija Verhaz, infectious diseases specialist at the University Clinical Center in Banja Luka, Republika Srpska, corroborated the above opinion on the shortage of human resources:

³⁴ Radiotelevizija Tuzlanskog Kantona, 'U covid ambulanti u Živinicama dnevno se obavi 60 pregleda (In the COVID Clinic in Živinice, 60 Examinations are Performed Daily)' (13 December 2020) <https://rtvtk.ba/u-covid-ambulantu-u-zivinicama-dnevno-se-obavi-60-pregleda> accessed 28 December 2020

³⁵ Izet Pajević, Mevludin Hasanović, Esmina Avdibegović, and others, 'Organization of Mental Healthcare in Bosnia and Herzegovina during Coronavirus Disease 2019 Pandemic' (2020) 62(Suppl 3) Indian Journal of Psychiatry S479–491

(Human) resources is the big problem. We have had to include other specialists (in the response) like surgeons, cardiologists, and radiologists. The number of specialists for infectious diseases is very small because the thinking is that infectious disease is a disease from the past. People didn't expect a pandemic.

Not only were there a shortage of doctors and nurses to meet the demand, but according to Dr Skočibusić, there were insufficient staff members skilled in the use of ventilators. Additionally, he said, due to the lack of available proven treatment for COVID-19, patients are frequently asking for antibiotics to treat their COVID illness, despite it being a viral infection, resulting in risks of additional infections and antimicrobial resistance:

Our patients are not willing to see that there is no real treatment for this illness, they are asking (for) lots of antibiotics, lots of corticosteroids and lots of over the counter products... (Antimicrobial resistance) is one of the major issues that we are going to deal after this pandemic. At the moment, we have a lot of post antimicrobial diarrhoea, Clostridium difficile³⁶ and diarrhoea, and many patients are suffering from that, especially at home, and we are using metronidazole to treat them.

Pressures on hospitals occurred nationwide. In Tuzla canton, consisting of 12 municipalities and more than 445,000 inhabitants, the University Clinical Center was overburdened despite having a COVID clinic and respiratory center, and in October 2020 had a considerable number of employees that were ill with COVID. The director of the center, Vahid Jusufović, commented in an interview with Radio Slobodna Evropa:

We treat moderate to severe vulnerable patients. Here is a concentration of patients from the entire canton, and the canton has almost half a million inhabitants. We must continuously provide health care for other diagnoses as well, which have unfortunately been quite neglected this time. We are under a lot of pressure, we are resisting for now. If the population is not taken very seriously and epidemiological measures are followed, there will be a scenario that we do not want³⁷.

Due to the pressures on the health system, on 10 November 2020, the FBiH government called an emergency session to allocate 10 million Bosnian marks (approximately €5 million) to public hospitals in the Federation to ease pressures due to the increase in COVID-related hospitalisations³⁸. Even so, stocks of PPE remain fragmented across the country. Prof Dr Antonija Verhaz, infectious diseases specialist at the University Clinical Center in Banja Luka, Republika Srpska, said that in her

³⁶ Bacteria that can infect the bowel and cause diarrhoea, and commonly affects those who have recently been treated with antibiotics.

³⁷ Aida Đugum and Dragana Erjavec, 'Zdravstveni sistem BiH je iscrpljen, upozoravaju ljekari dok raste broj zaraženih («BiH's health system is exhausted,» doctors warn as the number of those infected grow)' Radio Slobodna Evropa (23 October 2020) <https://www.slobodnaevropa.org/a/rast-broj-zarađenih-zdrstveni-sistem-bih/30908960.html> accessed 5 February 2021

³⁸ OECD, 'The COVID-19 Crisis in Bosnia and Herzegovina' OECD (30 November 2020) <https://www.oecd.org/south-east-europe/COVID-19-Crisis-in-Bosnia-and-Herzegovina.pdf> accessed 23 December 2020

hospital, there were sufficient supplies of PPE, but according to Damir Lalilic from the NGO Partnerships in Health, there had been shortages elsewhere such as at the University Clinical Center of the University of Sarajevo, PHI Hospital Sveti Vračevi in Bijeljina and University Clinical Hospital Mostar. This situation led to donations funded by the Alliance for Public Health and Global Fund, facilitated by Partnerships in Health, of PPE, disinfectants, and non-contact thermometers to these hospitals³⁹.

Overall, the COVID-19 pandemic has exposed a number of weaknesses in the BiH health system, the most marked of which is the lack of adequate human resources to deal with a pandemic. In addition to this, the country has also seen COVID denialism stemming from distrust of government⁴⁰, outdoor masking hesitancy⁴¹, and lax behaviours around physical distancing⁴². In October 2020, the World Bank announced that it projected that BiH would slip into its worst recession in 25 years⁴³. And while it is expected that 1.2 million doses of COVID vaccines (and therefore some immunity)

would be deployed to BiH from March 2021 onwards⁴⁴, the diversion of human resources to COVID, as well as the prospective recession and corresponding effects of poverty, are bound to have rippling effects on other diseases, including HIV and TB. Some of these effects are explored in the following paragraphs.

³⁹ Mirza Abaz, 'Partnerstvo za zdravlje doniralo zaštitnu opremu i testove na COVID-19 zdravstvenim radnicima u Sarajevu, Bijeljini i Mostaru (Partnership in Health donates protective equipment and tests on COVID-19 to healthcare professionals in Sarajevo, Bijeljina and Mostar)' *Oslobodjenje* (22 January 2021) <https://www.oslobodjenje.ba/vijesti/ekonomija/promo/donirana-zastitna-oprema-i-testovi-na-covid-19-zdravstvenim-radnicima-u-sarajevu-bijeljini-i-mostaru-623286> accessed 5 February 2021

⁴⁰ Euronews, 'COVID-19 deniers grow more vocal in Bosnia even as nation counts its dead' Euronews (3 October 2020) <https://www.euronews.com/2020/10/03/covid-19-deniers-grow-more-vocal-in-bosnia-even-as-nation-counts-its-dead> accessed 5 February 2021

⁴¹ Aida Đugum and Dragana Erjavec, 'Zdravstveni sistem BiH je iscrpljen, upozoravaju ljekari dok raste broj zaraženih («BiH's health system is exhausted,» doctors warn as the number of those infected grow)' *Radio Slobodna Evropa* (23 October 2020) <https://www.slobodnaevropa.org/a/rast-broj-zaradenih-zdrstveni-sistem-bih/30908960.html> accessed 5 February 2021

⁴² Radio Sarajevo, 'Epidemiolog Željko Ler za Radiosarajevo. ba: Šta je uzrok rasta broja oboljelih?(Epidemiologist Željko Ler for Radiosarajevo. ba: What is the cause of the increase in the number of patients?)' (7 June 2020) <https://radiosarajevo.ba/metromahala teme/epidemiolog-zeljko-ler-za-radiosarajevoba-sta-je-uzrok-rasta-broja-oboljelih/379458> accessed 8 February 2021

⁴³ The World Bank, <https://www.worldbank.org/en/news/press-release/2020/10/22/recession-deepens-in-bosnia-and-herzegovina-as-covid-19-pandemic-threatens-jobs-and-poverty-reduction-in-western-balkans> accessed 5 February 2021

⁴⁴ Radio Slobodna Evropa RFE/RL, 'BiH: Naručeno više od Milion doza Vakcina Protiv Korona virusa (BiH: More than a Million Doses of Coronavirus Vaccine Ordered)' *VOANews* (12 November 2020) <https://ba.voanews.com/a/bih-covid19-narucene-vaccine/5658049.html> accessed 28 December 2020



Effects on HIV Care

BiH is a low prevalence country, with approximately 234 PLHIV receiving ARV treatment at time of writing⁴⁵. ARVs are funded from three public insurance funds, i.e. the Health Insurance and Reinsurance Institute of Federation of Bosnia and Herzegovina, the Health Insurance Fund of Republic of Srpska, and the Health Insurance Fund of Brčko District of Bi H. Clinical guidelines are outdated, with a 2013 clinical guideline being used, and 2016 revision still having yet been approved. As a result of this, as well as fragmentation of procurement, patients receive different treatments depending on where they live. Dolutegravir, for example, the new standard of care in many countries across the globe, is only available in Sarajevo:

Figure 1: Available ARVs Based on Location in Bosnia and Herzegovina (excerpt from presentation, Dr Siniša Skočibusić)

Table 3. ARV available in 2019 (generic names) ³				
Country	Bosnia and Herzegovina			
Entity	Federation of Bosnia and Herzegovina			Brčko district of B&H ⁴
Town	Republic of Srpska Banja Luka	Sarajevo	Tuzla	Brčko
ARV (generic names)	<ul style="list-style-type: none"> • efavirenz (EFV) • lopinavir/ritonavir (LPN/r) • nevirapine (NVP) • tenofovir disoproxil fumarate + emtricitabine (TDF/FTC) • zidovudine + lamivudine (ZDV/3TC) 	<ul style="list-style-type: none"> • abacavir (ABC) • abacavir + lamivudine (ABC/3TC) • bicitegravir + tenofovir alafenamide + emtricitabine (BIC/TAF/FTC) • dolutegravir (DTG) • efavirenz (EFV) • lamivudine (3TC) • lopinavir + ritonavir (LPV/r) • nevirapine (NVP) • raltegravir (RAL) • rilpivirine + tenofovir disoproxil fumarate + emtricitabine (RPV/TDF/FTC) • tenofovir disoproxil fumarate + emtricitabine (TDF/FTC) • zidovudine (ZDV) • zidovudine + lamivudine (ZDV/3TC) 	<ul style="list-style-type: none"> • abacavir + lamivudine (ABC/3TC) • efavirenz (EFV) • lopinavir + ritonavir (LPV/r) • rilpivirine + tenofovir disoproxil fumarate + emtricitabine (RPV/TDF/FTC) • tenofovir disoproxil fumarate + emtricitabine (TDF/FTC) • zidovudine + lamivudine (ZDV/3TC) 	<ul style="list-style-type: none"> • abacavir + lamivudine (ABC/3TC) • efavirenz (EFV) • lamivudine (3TC) • rilpivirine + tenofovir disoproxil fumarate + emtricitabine (RPV/TDF/FTC) • tenofovir disoproxil fumarate + emtricitabine (TDF/FTC)
Number of available ARV's	5	13	6	5

⁴⁵ Dr Siniša Skočibusić, 'ARV Pricing in Bosnia and Herzegovina' Powerpoint Presentation dated January 2021, via personal communication to the author

In addition, pre-exposure prophylaxis medications are only available in Sarajevo. This disparity in treatment means that a situation of inequality existed pre-COVID. As COVID descended and resources were redirected away from other disease areas, this inequality seems to have increased. Dr Antonija Verhaz, based in Banja Luka, the capital of Republika Srpska, told us of the closure of the voluntary counselling and testing (VCT) facility there, and the corresponding reduction in testing:

First and foremost, the VCT centre right now is closed. The old VCT centre was moved to another location and this new location is still under construction, and does not really satisfy the proper measures and regulations needed for proper functioning. And then the second obvious reason (for reduction in testing) is the coronavirus situation and prohibition on movement and the gathering of people. We think that the number of people who actually have HIV in Republika Srpska is far greater than the numbers show because obviously, the testing numbers (have) reduced in the meantime... And the third problem that we encounter and we can't solve at this point is that these patients are still suffering a significant amount of stigma.

Nor is there the ability for civil society organisations to officially provide these services due to the lack of a so-called 'Social Contracting' law that would allow the recognition of CSOs by governments in BiH as recognised providers of HIV services. At time of writing, the CSO Partnerships in Health is advocating via the SoS project to enable a social contracting mechanism for provision of services. In the words of Aida Kurtovic, Director of Partnerships in Health:

We do not have social contracting yet and we are advocating for it through the SoS Project. The COVID pandemic is making it much more difficult. We have been able to establish the parliamentary group for HIV for hepatitis and tuberculosis at the state level. So we are hoping that with the support of this parliamentary group we will have two major achievements. One being establishment of the social contracting mechanism in the country. Second, to increase funds significantly beyond €26,000 that we have, to be able to meaningfully and significantly really fund the HIV and TB treatment programmes.

Denis Dedajic, Executive Director of Association Margina further commented:

This social contracting law is my baby. I want it to be my legacy. And it's not just for NGOs who work in HIV, TB, and harm reduction, it's for all NGO field workers. It's a good practice from European Union countries to leverage upon the human resources and expertise of NGOs to support their work, and it's cheaper than using official government structures to deliver all of the services.

When asked as to whether HIV treatment had been disrupted, Aida Kurtovic told us that some doctors had resorted to posting antiretrovirals to PLHIV, although this was not uniform across health facilities:

In Sarajevo the lead infectious disease specialist has shared with us that she has been sending treatments i.e. drugs to her patients, using post, through the regular post office. She has been

arranging different teams with PLHIV to physically bring the treatment, and give it to them. Unfortunately, again, we have not seen this same kind of approach in Tuzla or other cantons, so I assume that treatment interruptions have happened.

HIV risk is rising for MSM in BiH⁴⁶. This is fuelled in part by high levels of stigma against MSM, with MSM in BiH describing a ‘stiff and outdated system’ that did not meet their specific needs, and that doctors had negative attitudes towards the MSM population⁴⁷. We interviewed a 24-year old MSM from Sarajevo, who told us of the lack of support for services tailored to MSM partly due to the transition of BiH out of Global Fund support, and this includes the funding of safe spaces:

A drop-in center would be good for us — before, we were able to get together and talk about our problems. We had one psychologist, we had support, and they distributed flyers, materials, lubricants, condoms, and testing. But we don’t have it now. When Global Fund left, everything fell apart.

Aida Kurtovic, Director of Partnerships in Health, also commented on the Global Fund transition, stating:

The last figures we have are that we have and estimated 5,000 MSM and 1,150 sex workers — but unfortunately

with the Global Fund transition there is no civil society supporting this work anymore. First of all, the Bosnia and Herzegovina transition from Global Fund support occurred prior to approval of the Global Fund sustainability, transition and co-financing policy. So this was one of the six or seven countries which had transitions out of Global Fund funding without a transition period. There was a transition plan developed by the CCM (Country Coordinating Mechanism), and it was a really good document. But the problem was that there was no funding from the government that was allocated for the implementation of this plan. So basically, the written document was truly reflective of the population and the civil society in terms of HIV in this country, but it was not funded. So the transition plan expired in 2017 without really being implemented. So that is the reality that we have.

The COVID-19 pandemic, combined with the fallout from an imperfect Global Fund transition, means that MSM are uniquely vulnerable. As the 24-year old MSM from Sarajevo told us: “Testing was more difficult because it was not possible to easily enter the healthcare centre as there were rigorous measures of protection so as to prevent transmission in the Sarajevo University Clinical Center.” These testimonies show the wide-ranging effect of the COVID-19 pandemic on HIV services — i.e. it has affected not just the access to commodities and services, but also the advocacy measures needed to improve access to HIV services.

⁴⁶ Stela Stojisavljevic and B Matejic Djikanovic, ‘Risk factors for HIV among an MSM population in Bosnia and Herzegovina’ (2018) 28(Suppl 4) European Journal of Public Health 54

⁴⁷ Stela Stojisavljevic, Bosiljka Djikanovic, and Bojana Matejic, “The Devil has entered you”: A qualitative study of Men Who Have Sex With Men (MSM) and the stigma and discrimination they experience from Healthcare Professionals and the General Community in Bosnia and Herzegovina’ (2017) 12(6) PLoS ONE e0179101



Effects on Harm Reduction Services

According to Association Margina, a civil society organisation working out of the cantons of Tuzla (in northeast BiH) and Zenica-Doboj (approximately 70km north of Sarajevo), there are approximately 15,000 people who inject drugs in the country, with heroin being the predominant injection drug. There are seven drop-in centers that work on harm reduction, including the exchange and distribution of injecting equipment, providing information, counseling, field work and the distribution of condoms for people who inject drugs⁴⁸. Methadone centers in Bosnia and Herzegovina are in Sarajevo, Zenica, Mostar, Sanski Most, Doboj and Banja Luka⁴⁹. While official data states that HIV cases are low among PWID, from 2018 to 2020, HIV infections increased by 13% among PWID⁵⁰, indicating a need for sustained harm reduction services.

Needle-and-syringe exchange programs were heavily affected by the COVID-19 pandemic, juxtaposed with the lack of funding due to transitioning out of Global Fund funding, corruption, and the lack of other available funds due to diversion towards COVID-19. Denis Dedajic, the President of Association Margina, elaborated:

The impact of COVID-19 on the availability of needles and syringes, as well as other materials, is huge. This is primarily due to the shutdown of all other services that operated in Bosnia and Herzegovina, except for two services provided by our organization in the Tuzla and Zenica regions, which are accredited until 2023. The main problem is the lack of funds to finance our services. We are still working but we are in big trouble. 6 of us are active as well as about 40 volunteers from the population of users — we all work without any compensation since September 2019, and the pandemic itself has increased problems due to restrictions on movement, introduction of curfews, inconsistent crisis headquarters measures, and large-scale fraud in public procurement of equipment and materials for the purpose of defence against the corona. Notably, the Prime Minister and Minister of Finance, and

⁴⁸ Asocijacija Margina, 'Analiza Isplativosti: Implementacije Programa Za Smanjenje Štete Od Upotrebe Droga U FBIH (Implementation Program for Reduction of Drug Use in FBIH)' (March 2014) 18 <http://fileserver.idpc.net/library/Cost-Effectiveness-Analysis-Harm-Reduction-Bosnia-Herzegovina.pdf> accessed 28 December 2020

⁴⁹ Asocijacija Margina, 'Analiza Isplativosti: Implementacije Programa Za Smanjenje Štete Od Upotrebe Droga U FBIH (Implementation Program for Reduction of Drug Use in FBIH)' (March 2014) 24 <http://fileserver.idpc.net/library/Cost-Effectiveness-Analysis-Harm-Reduction-Bosnia-Herzegovina.pdf> accessed 28 December 2020

⁵⁰ Interview with Denis Dedajic, President, Association Margina (Zoom, 8th February 2021)

head of civil protection are currently in court for corruption charges. All funds that were previously available are now aimed at measures against COVID-19. During the pandemic and until now, we are distributing saved materials and needles from the Global Fund and other NGOs. We have only enough materials for two more months.

This testimony too points to systemic problems with governance in general, in addition to fragmentation of the health system. Nor is there a robust welfare system for the socioeconomic disparity that has emerged out of the pandemic. Denis Dedajic elaborated:

There are some programmes for (unemployed) people but it's not stable or sustainable. And regarding this, our clients have low capacity especially in terms of formal education. We support them in applications at the office of unemployment, and also on funding for healthcare. Bosnia and Herzegovina before the pandemic had at least half a million of unemployed people, and now this has increased.

A lack of available donor funding means that over 2,400 vulnerable individuals who receive services from Association Margina have no access to support services. In the words of Denis Dedajic:

I am very personally frustrated. And my frustration is focused on the people who are our clients. These people, PWID, sex workers, and prisoners, are really on the edge of this disaster, this pandemic. If we close these services, these people don't have opportunity, not only for the

needles and syringes. We are a referral point for all other services for our clients, for social, health, legal services, etcetera.

Similar disruptions do not seem to have occurred with the OST program. In fact, similar to adaptations in Georgia, described elsewhere in this report, take-home doses of OST were provided during the pandemic period. Dedajic elaborated:

OST services have not suffered major damage or major problems, as it is funded by health funds and procurement that operates through UNDP, reducing the possibility for scarcity of supplies. There are lower prices and it works well. The change was in the methodology of dispersing methadone, because the possibility of daily outpatient dispersing of OST was reduced in order to protect from transmission of COVID-19. Methadone therapy is issued on a weekly basis and suboxone on a monthly basis. According to information available to me, the program functions in a satisfactory way in prisons, based on the established protocol, and for now there are no problems. But take-home doses does mean that there is an opportunity for diversion of doses.



Impact on TB Testing, Treatment, and Care

TB incidence is 27 per 100,000 in BiH⁵¹, which is approximately the European average. While TB incidence has gradually reduced in the past decade, a number of issues were highlighted as key problems in TB service provision in a 2013 WHO report⁵², including considerable delays in diagnostic processes, a heavy reliance on the Global Fund for TB drug management raising concerns about capacity for drug management post-transition from Global Fund funding⁵³, inconsistent data reporting, and at the time, a lack of availability of childhood TB drug formulations, leading to physicians prescribing dosages at their own discretion⁵⁴. Furthermore, a 2019 article stated individuals from rural areas without proximity to microbiology facilities capable of conducting confirmatory TB tests had to submit sputum or blood samples to primary healthcare facilities which were often more focused on family medicine and thus did not have adequate equipment to detect tuberculosis. In addition, patients were expected to pay for initial diagnostic tests and that if reimbursements were available, they were ‘bureaucratically complex’⁵⁵.

In addition, the TB response in BiH is largely led by pulmonologists, rather than having a robust civil society component. Aida Kurtovic, Director of Partnerships in Health elaborated:

There is not one civil society organisation either local or international, that is engaged in any kind of TB prevention or monitoring programme (in BiH). So, that is a point of concern, and also secondly, TB somehow is still in old fashioned mode. Basically, it is in a very traditional approach to the disease, being led and dominated mainly by healthcare professionals who think it is solely a health issue and that nobody apart from the medical providers should have a say in there. So, there is no activism that we have seen in HIV that has changed the global response to HIV, and in TB you see very little or none of it. And I’m

⁵¹ WHO, Global Tuberculosis Report 2020, Tuberculosis Profile: Bosnia and Herzegovina (2020) https://worldhealthorg.shinyapps.io/tb_profiles/?inputs&lan=%22EN%22&entity_type=%22country%22&iso2=%22BA%22 accessed 29 December 2020

⁵² WHO Regional Office for Europe, ‘Review of the Tuberculosis Programme in Bosnia and Herzegovina’ (2013) https://www.euro.who.int/data/assets/pdf_file/0007/266515/Review-of-the-Tuberculosis-Programme-in-Bosnia-and-Herzegovina.pdf accessed 5 March 2021

⁵³ Ajla Džanko and Dženan Kovacic, ‘Tuberculosis in Bosnia & Herzegovina: Analysis, Criticism and New Concerns’ (2019) https://www.researchgate.net/publication/333045627_Tuberculosis_in_Bosnia_and_Herzegovina_Analysis_Criticism_and_New_Concerns accessed 28 December 2020

⁵⁴ Ibid

⁵⁵ Ibid

speaking from the perspective of trying to establish a regional community network in 11 countries of this region. Frankly speaking, the biggest struggle was to find a TB community member who would be interested to join us.

Dr Velimir Bereš, joint Head of the Clinic for Lung Diseases and Head of the COVID Department of Brčko District Hospital told us that TB drugs available at his hospital are isoniazid (H), rifampicin (R), pyrazinamide (Z), ethambutol (E) and streptomycin (S). TB medications for the whole of Brčko District are procured through the Brčko District Hospital, and in FbiH and Republika Srpska, procurement is done centrally through Health Insurance Funds⁵⁶.

According to the 2020 WHO report, there is an extremely low treatment success rate, i.e. 28% success in new and relapsed cases⁵⁷, perhaps raising the need for an in-depth study on the causes of low treatment success. Unfortunately, we were unable to speak to the national TB coordinators for BiH, hence a research gap remains not just on how deeply COVID-19 affected TB care, but also on how transition out of Global Fund funding has affected TB services, and whether services have improved since the 2013 report. The following are a few illustrative reflections from interviewees on the impact of COVID-19 on TB services in Bi H.

Dr Velimir Bereš spoke of ongoing TB work under COVID conditions:

There were limited COVID tests in the beginning, but we prioritised testing symptomatic TB patients. At present, we are working on passive testing, observing unclear conditions through X-rays, as well as visible symptoms among patients referred by family doctors, and after we have a clearer clinical picture (on each patient) we start taking sputum samples and begin treatment.

He further said that COVID mortality among TB patients was not known:

Unfortunately, due to the burden on the health system, there are no clear statistics on patients' previous illnesses, and this would have to be thoroughly researched patient by patient with a complete medical history of each deceased person during the COVID pandemic.

Prof Dr Verhaz, based at the University Clinical Center in Republika Srpska, spoke about two individuals who attended her facility with symptoms of COVID, and subsequently also tested positive for TB:

These two cases were walk-ins, and they came to us for symptoms of COVID. And they tested positive (for COVID). But during COVID treatment, we did CT scans and some other

⁵⁶ Interview with Dr Velimir Bereš, Head of the Clinic for Lung Diseases and Head of COVID Department, Brčko District Hospital (Phone conversation with Denis Dedajic, 3 March 2021)

⁵⁷ Based on a 2018 cohort of 666 patients. WHO, 'Tuberculosis Profile: Bosnia and Herzegovina' https://worldhealthorg.shinyapps.io/tb_profiles/?inputs&entity_type=%22country%22&lan=%22EN%22&iso2=%22BA%22 accessed 5 March 2021



tests, and also suspected a diagnosis of tuberculosis. And these symptoms persisted even after the COVID tests turned negative. They have continued therapy now for tuberculosis and it has been continued under the supervision of a pulmonologist.



Based on this, there seems to be value in being able to integrate TB and COVID testing given similar respiratory symptoms. From a treatment perspective, Denis Dedajic said despite the pandemic, treatments seemed to be continuing without major problems due to outreach to deliver medicines; however supportive services and additional testing had reduced:

A doctor and two medical technicians conducted outreach to deliver medications to patients. But as you know, pulmonologists are the ones treating TB, and almost 100% of them are focused on COVID-19 now. So detection for new cases has gone way down.

It is unclear at this stage how sputum collections and follow-up support services are conducted within the TB care package during the COVID-19 pandemic in BiH, and further research will need to be done to fill this gap in knowledge.



Conclusion and Recommendations

The COVID-19 response in BiH has been characterised by high death rates, and has shone a light on the consequences of a highly fragmented health system, corruption, inadequate medical expertise, COVID denialism, and poor planned transition out of Global Fund funding. Services for MSM, sex workers, and people who use drugs have been left without funding — and substantial amounts of funding are required to reverse socioeconomic effects of the pandemic.

Our findings are as follows:

■ ***High COVID death rate.***

The high COVID-19 death rate is attributed to premature relaxation of restrictions, lax attitudes towards physical distancing and masks, and an overwhelmed health system.

■ ***A Weak Healthcare System.***

The health system in BiH is fragmented, and is inadequately staffed. In addition, there are few infectious diseases clinicians with misconception that infectious diseases were diseases of the past.

■ ***Poor Global Fund transition.***

The Global Fund transition has left key affected populations, notably people who use drugs, sex workers, MSM, and prisoner populations, without necessary support services.

■ ***Impact on HIV Care.***

Based on informant interviews, there is reduced screening for HIV, and mail services for delivery of ARVs have only been adopted in some cantons. There has been preexisting inequality due to availability of different medications in different cantons. Many at risk populations, especially those who work in the informal economy, have lost incomes due to the pandemic. There is a need

for psychological and welfare support for PLHIV and communities at risk.

■ ***Disruption to NSEP services.***

At time of writing, Association Margina only has enough NSEP materials for two additional months, and no funding for salaries of staff, thus severely reduced ability to support vulnerable populations with access to legal, health, and other services.

■ ***Social Contracting Laws to Increase HIV and TB Support Services.***

Efforts are underway under the SoS project and in collaboration with other local NGOs, to introduce a social contracting mechanism that would recognize the role of NGOs in the provision of support services.

■ ***Take-Home Doses for OST.***

The COVID-19 pandemic has seen the approval of a regulation for take-home doses of OST for a week.

■ ***Extremely Low TB Treatment Success Rates.***

Investigations should be initiated to understand causes of low TB treatment success rates. In addition, the country may benefit from comprehensive electronic surveillance and a reporting and recording (R&R) system for TB surveillance.

■ ***Reduction in TB Detection Rates.***

Clinicians interviewed for this report state that testing for TB has much reduced due to pulmonologists, the doctors primarily treating TB, being engaged fulltime in the COVID-19 response. Unfortunately, no data was available to us on percentage of reduction in TB detection, and further research is needed to determine this.

Based on these, we make the following recommendations:

Problem area	Advocacy Target	Recommendation
Poor transition out of Global Fund leaving vulnerable populations without services	Global Fund	<ul style="list-style-type: none"> ■ Initiation of an investigation on poor transition in BiH; ■ Authorisation of emergency funding to remedy impacts of poor transition.
	International donors	<ul style="list-style-type: none"> ■ Emergency overseas development assistance to be approved to fund harm reduction, sexual health services, and support services for most vulnerable populations.
No mechanism for funding of CSOs to support the HIV and TB response	BiH Legislature	<ul style="list-style-type: none"> ■ Approval of social contracting laws
Low TB treatment success rates	TB Coordinators	<ul style="list-style-type: none"> ■ To investigate causes of low treatment success rates; ■ To institute comprehensive recording and reporting (R&R) electronic surveillance systems
	Alliance for Public Health	<ul style="list-style-type: none"> ■ To conduct advocacy on improving TB treatment in BiH
Insufficiently robust TB community groups	Alliance for Public Health	<ul style="list-style-type: none"> ■ To support the development of TB community activists.
A need to strengthen the health system for future pandemic response	Government of BiH	<ul style="list-style-type: none"> ■ To fund specialisation of doctors in infectious disease and improve staffing capacity generally ■ To invest in building long-term pandemic preparedness
High unemployment among youth, unemployment exacerbated among marginalised populations due to COVID	Government of BiH	<ul style="list-style-type: none"> ■ For the government to approve a COVID relief package for unemployed and vulnerable populations, including financial and psychosocial support.



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