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- Shrime MG, Bickler SW, Alkire BC, et al. Global burden of surgical disease: an estimation from the provider perspective. Lancet Glob Health 2015; 3 (suppl 2): S8-9.
- 2 Meara JG, Leather AJM, Hagander L, et al. Global surgery 2030: evidence and solutions for achieving health, welfare, and economic development. Lancet 2015; 386: 569-624.
- 3 Bickler SN, Weiser TG, Kassebaum N, et al. Global burden of surgical conditions. In: Debas HT, Donkor P, Gawande A, eds. Essential surgery: disease control priorities, 3rd edn (vol 1). Washington, DC: International Bank for Reconstruction and Development/World Bank, 2015.
- 4 Nepogodiev D, Bhangu A. Elective surgery cancellations due to COVID-19 pandemic: global predictive modelling to inform surgical recovery plans. Br J Surg 2020; published online May 12. DOI: 10.1002/bjs.11746.
- World Bank. The human capital project. Washington, DC: World Bank, 2018. https://www.worldbank.org/en/publication/human-capital (accessed April 27, 2020).
- Victora CG, Adair L, Fall C, et al. Maternal and child undernutrition: consequences for adult health and human capital. Lancet 2008; 371: 340–57.
- 7 Onarheim KH, Iversen JH, Bloom DE. Economic benefits of investing in women's health: a systematic review. PLoS One 2016; 11: e0150120.
- 8 WHO Regional Office for Africa. A heavy burden: the productivity cost of illness in Africa. 2019. https://www.afro.who.int/publications/heavyburden-productivity-cost-illness-africa (accessed April 27, 2020).

- 9 African Health Observatory. Atlas of the African health statistics 2018. http://www.aho.afro.who.int/en/atlas/atlas-african-health-statistics-2018 (accessed April 27, 2020).
- Marquez PV, Farrington JL. The challenge of non-communicable diseases and road traffic injuries in Sub-Saharan Africa: an overview. Washington, DC: World Bank, 2013.
- 11 Alkire BC, Shrime MG, Dare AJ, Vincent JR, Meara JG. Global economic consequences of selected surgical diseases: a modelling study. Lancet Glob Health 2015; 3: 521–27.
- 12 Shrime MG, Dare AJ, Alkire BC, O'Neill K, Meara JG. Catastrophic expenditure to pay for surgery: a global estimate. Lancet Glob Health 2015; 3: \$38-44.
- Boerma T, Ronsmans C, Melesse DY, et al. Global epidemiology of use of and disparities in caesarean sections. Lancet 2018; 392: 1341–48.
- 14 Bishop D, Dyer RA, Maswime S, et al. Maternal and neonatal outcomes after caesarean delivery in the African Surgical Outcomes Study: a 7-day prospective observational cohort study. Lancet Glob Health 2019; 7: e513-22.
- 15 WHO. WHO global status report on road safety 2018. http://www.who.int/violence\_injury\_prevention/road\_safety\_status/2018/en/ (accessed April 27, 2020).
- 16 Khanna T, Bijlani T. Narayana Hrudayalaya Heart Hospital: cardiac care for the poor (B). Report no: ID 2013490. Rochester, NY: Social Science Research Network, 2011. https://papers.ssrn.com/abstract=2013490 (accessed April 27, 2020).
- 17 Taylor A, Escobar E, Udayakumar K. Expanding access to low-cost, high-quality tertiary care: spreading the Narayana Health model beyond India. Nov 9, 2017. The Commonwealth Fund. https://www.commonwealthfund.org/publications/case-study/2017/nov/expanding-access-low-cost-high-quality-tertiary-care (accessed May 20, 2020).
- 18 SADC Secretariat. Media statement—Joint Meeting of SADC Ministers of Health 2018. 2018. https://www.sadc.int/files/3315/4169/8409/Media\_Statement\_-\_Joint\_Meeting\_of\_SADC\_Ministers\_of\_Health\_and\_those\_responsible\_for\_HIV\_and\_AIDS\_.pdf (accessed May 20, 2020).
- 19 Hutch A, Bekele A, O'Flynn E, et al. The brain drain myth: retention of specialist surgical graduates in East, Central and Southern Africa, 1974–2013. World J Surg 2017; 41: 3046–53.

# Sex workers must not be forgotten in the COVID-19 response



As countries maintain or adjust public health measures, emergency legislation, and economic policies in response to the COVID-19 pandemic, there is an urgent need to protect the rights of, and to support, the most vulnerable members of society. Sex workers are among the most marginalised groups. Globally, most direct sex work has largely ceased as a result of physical distancing and lockdown measures put in place to halt transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), potentially rendering a frequently marginalised and economically precarious population more vulnerable.1 Most sex workers, even those who can move their work online, have been financially compromised and some are unable to stop in-person services.2 It is imperative that sex workers are afforded access to social protection schemes as equal members of society.

As with all aspects of health, the ability of sex workers to protect themselves against COVID-19 depends on their individual and interpersonal behaviours, their work environment, the availability of community support,

access to health and social services, and broader aspects of the legal and economic environment.<sup>3,4</sup> Stigma and criminalisation mean that sex workers might not seek, or be eligible for, government-led social protection or economic initiatives to support small businesses. Police arrests, fines, violence, disruption in aid by law enforcement, and compulsory deportation have been reported by sex workers across diverse settings, fuelling concerns that the pandemic is intensifying stigma, discrimination, and repressive policing.<sup>1,2</sup>

Sex workers who are homeless, use drugs, or are migrants with insecure legal or residency status face greater challenges in accessing health services or financial relief, which increases their vulnerability to poor health outcomes and longer-term negative economic impacts.<sup>5,6</sup> Increased prevalence of underlying health conditions among sex workers<sup>7</sup> might increase risk of COVID-19 progressing to severe illness.<sup>8</sup> Demand for shelter and supported housing has increased as sex work venues have been shut down or rental payments default through

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#### Panel: Key interventions to address harms of COVID-19 among sex workers

All interventions and services must be designed and implemented in collaboration with sex-worker-led organisations.

#### Social and structural interventions

- Financial benefits and social protection for all sex workers including migrants with illegal or uncertain residency status
- Immediate cessation of arrests, raids, and prosecutions for sex work and minor drug-related offences, and long-term reform of policies and laws that have been shown to be harmful to health
- Provision of emergency housing to those who are homeless, moratorium on evictions, and assistance with rent or mortgage repayments for those in need

#### **Health services**

- Appropriately targeted health promotion advice on prevention of COVID-19 with language translation
- Distribution of hand sanitiser, soap, condoms, and personal protective equipment
- Maintenance and extension of person-centred services to address needs associated with mental health, alcohol and other drug use, physical and sexual violence, and sexual and reproductive health, including HIV treatment and transition-related care
- COVID-19 testing and contact tracing among sex workers and marginalised groups

loss of income.<sup>2</sup> Existing mental health problems are likely to be exacerbated by anxiety over income, food, and housing, alongside concerns about infection from continuing to work in the absence of social protection.<sup>9</sup>

Risk of infection with SARS-CoV-2 is heightened for those who share drug paraphernalia for drug use.10 Alternative ways of maintaining or extending treatment and drug substitute prescribing are important to save lives in places where services are closed or restricted or there are staff shortages due to sickness.10 There is scarce reliable evidence of the risk of infection or complications of COVID-19 among people living with HIV, although the risk could be greater among those who are immunocompromised and not on HIV treatment.11 Review evidence suggests, on average, use of antiretroviral therapies is already low among sex workers who are HIV positive in high-income and low-income settings.12 It is crucial that disruption to health services does not further reduce access to HIV treatment and prevention or to vital services addressing domestic or other forms of violence.<sup>1,2</sup>

Mathematical models suggest that even with widespread testing and contact tracing, in the absence of a COVID-19 vaccine, physical distancing will be a key intervention to prevent community transmission globally.<sup>13</sup> Early modelling that informed physical distancing policies did not account for the needs of vulnerable populations, or their access and adherence to official guidance.<sup>14</sup> Population-level gains, such as a

reduction in hospital admissions and mortality, are likely to be intangible for marginalised populations for whom the immediate negative effects of physical distancing could be substantial.<sup>15</sup> The inability to work, reduced access to health services, and increased isolation are likely to result in poorer health outcomes and increased inequalities, particularly where individuals are largely excluded from formal social protection schemes.<sup>16</sup>

Sex worker organisations have rapidly responded to COVID-19 by circulating hardship funds; helping with financial relief applications; advocating for governments to include sex workers in the pandemic response; calling for basic labour rights to facilitate safer working conditions; and providing health and safety guidance for those moving online or unable to stop direct services.<sup>17</sup> Worldwide, government initiatives have included supplying food packages to sex workers in Bangladesh, the provision of emergency housing in England and Wales, and the inclusion of sex workers in financial benefits in Thailand, the Netherlands, and Japan. Yet these schemes often exclude the most marginalised, including those who are homeless, transgender, or migrants.<sup>1,2</sup> There is a critical need for governments and health and social care providers to work with affected communities and front-line service providers to co-produce effective interventions.18 Examples of necessary interventions are described in the panel. Existing sex worker organisations provide an essential foundation for community health work and in collaboration with health services they can facilitate, and ensure the appropriateness of, community testing and contact tracing as well as maximising the uptake of potential future COVID-19 vaccines or treatments.19

Achieving healthier communities and controlling COVID-19 requires a collective and inclusive response. Resources and support for sex workers need to be prioritised. Involvement of communities in social protection schemes, health services, and information will enable sex workers to protect their health during this pandemic as equal citizens, in line with principles of social justice. Reforms of social and legal policies, including decriminalisation of sex work, can reduce discrimination and marginalisation of sex workers and enable provision of vital health and social services. This need becomes more acute as existing health and social challenges are exacerbated by the COVID-19 crisis.

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- Sex Workers Rights Advocacy Network. SWAN statement on COVID-19 and demands of sex workers. Sex Workers Rights Advocacy Network, 2020.
- 2 UNAIDS. COVID-19 responses must uphold and protect the human rights of sex workers. Geneva, Switzerland: UNAIDS, 2020.
- 3 Platt L, Grenfell P, Meiksin R, et al. Associations between sex work laws and sex workers' health: a systematic review and meta-analysis of quantitative and qualitative studies. PLoS Med 2018; 15: e1002680.
- 4 Shannon K, Goldenberg SM, Deering KN, et al. HIV infection among female sex workers in concentrated and high prevalence epidemics: why a structural determinants framework is needed. Curr Opin HIV AIDS 2014; 6-174-87
- 5 Kluge HHP, Jakab Z, Bartovic J, et al. Refugee and migrant health in the COVID-19 response. Lancet 2020; 395: 1237–39.
- 6 TAMPEP. Regional updates COVID-19 migrant sex workers and sex worker responses. The European Network for the Promotion of Rights and Health among Migrant Sex Workers, 2020.
- 7 Daly R, Khatib N, Larkins A, et al. Testing for latent tuberculosis infection using interferon gamma release assays in commercial sex workers at an outreach clinic in Birmingham. Int J STD AIDS 2016; 27: 676–79.
- 8 Liu Y, Bi L, Chen Y, et al. Active or latent tuberculosis increases susceptibility to COVID-19 and disease severity. medRxiv 2020; published online March 16. https://doi.org/10.1101/2020.03.10.20033795 (preprint).

- 9 Puri N, Shannon K, Nguyen P, et al. Burden and correlates of mental health diagnoses among sex workers in an urban setting. BMC Women's Health 2017; 17: 133.
- European Monitoring Centre for Drugs and Drug Addiction. EMCDDA update on the implications of COVID-19 for people who use drugs (PWUD) and drug service providers. Lisbon, Portugal: European Monitoring Centre for Drugs and Drug Addiction, 2020.
- 11 WHO. Q&A on COVID-19, HIV and antiretrovirals. March 24, 2020. https://www.who.int/news-room/q-a-detail/q-a-on-covid-19-hiv-and-antiretrovirals (accessed May 7, 2020).
- Mountain E, Mishra S, Vickerman P, et al. Antiretroviral therapy uptake, attrition, adherence and outcomes among HIV-infected female sex workers: a systematic review and meta-analysis. PLoS One 2014; 9: e105645.
- 13 WHO. COVID-19 strategy update. Geneva, Switzerland: World Health Organization, 2020.
- 14 Adam D. Special report: the simulations driving the world's response to COVID-19. Nature 2020; 580: 316-18.
- 15 Rose G. Individuals and populations: the strategy of preventive medicine. Oxford: Oxford University Press, 1992.
- 16 Frohlich KL, Potvin L. Transcending the known in public health practice. Am J Public Health 2008; 98: 216-21.
- 17 Red Umbrella Fund. Sex-workers' resilience to the COVID crisis: a list of initiatives. 2020. https://www.redumbrellafund.org/covid-initiatives/ (accessed May 7, 2020).
- 18 UNAIDS. Rights in the time of COVID -19. Lessons from HIV for an effective, community-led response. Geneva, Switzerland: UNAIDS, 2020.
- 19 Coady MH, Galea S, Blaney S, et al. Project VIVA: a multilevel community-based intervention to increase influenza vaccination rates among hard-to-reach populations in New York City. Am J Public Health 2008; 98: 1314–21.
- 20 Grenfell P, Platt L, Stevenson L. Examining and challenging the everyday power relations affecting sex workers' health. In: FitzGerald SA, McGarry K, eds. Realising justice for sex workers: an agenda for change. London: Rowman & Littlefield International. 2018.

## A Lancet Commission on women and cancer



Over the past decade, the global health community has begun to acknowledge that cancer is an increasingly important public health and economic challenge in all countries.¹ What is not acknowledged is the disproportionate impact of cancer on the lives and livelihoods of women, and the downstream impacts this creates for societies. In 104 countries, breast cancer has the highest age-standardised incidence rate of all cancers in both sexes combined; in 23 countries, it is cervical cancer.² Of the 938 044 deaths from these two cancers in 2018, most were premature and preventable and occurred in a low-income or middle-income countries (LMICs), where access to high-quality cancer control and care is limited and inequitable.³⁴ Of the 311 365 women who died of cervical cancer in 2018, nearly nine in ten lived in LMICs.²

Breast cancer incidence and mortality are increasing disproportionately in LMICs, generally rising in parallel with markers of human development,<sup>3</sup> including demographic shifts and changing patterns of reproductive risk factors—eg, earlier menarche, lower parity, later age at first childbirth, and less breastfeeding.<sup>3</sup> At the same time, invasive cervical cancer is increasingly uncommon

in many high-income countries (HICs) and some middleincome countries with effective screening programmes,3 but is either relatively stable or increasing in some countries in eastern Europe and central Asia due to shifts in the prevalence of high-risk human papillomavirus and insufficient effective coordinated screening and treatment programmes.3 As a result, in some countries, breast and cervical cancer incidence is rising.4 Moreover, breast, uterine (endometrial), and ovarian cancers, as well as colorectal, gallbladder, renal, and other cancers that affect men and women are associated with overweight and obesity,5 a preventable risk factor that is increasing disproportionately among women in many countries. The number of new cancers in 2012 attributable to excess body-mass index in women was 2.5 times that in men (343 000 vs 137 000, respectively).5 These sex differences in cancer incidence attributable to overweight and obesity can be seen in all world regions, including sub-Saharan Africa, northern Africa, and the Middle East.

These trends, however, reflect only one aspect of cancer's impact on the lives of women. Women can set aside their own needs, livelihoods, and even their personal