

Serbia Country Profile: Health Care Waste Management (HCWM) in the Context of COVID-19

September 2020

Background Information on HCWM

Population	6,944,975 ¹
National entities in charge of HCWM	Ministry of Health (MoH) and Ministry of Environmental Protection (MoEP)
Municipal solid waste (MSW) generation	1,840,000 tonnes/year ²
Health care waste (HCW) generation	2,777 tonnes/year ³
Infectious HCW treated	2,750 tonnes/year ⁴
On-site vs. off-site treatment	On-site and off-site
Most common HC waste treatment technology	Autoclave
Number of sanitary landfills and dumpsites	10 regional sanitary landfills ⁵
Health care waste exports?	Yes (mainly chemical and pharmaceutical) ⁶
National solid waste management law	Law on Waste Management , (2009)
National solid waste strategy	National Waste Management Strategy (2010–2019) (New strategy for 2020–2025 period is being drafted) ⁷
National HCW management law	Part of Law on Waste Management (2009)
National HCW policy	Rulebook on Medical Waste Management (2010)
National HCW management strategy	National Waste Management Strategy (2010–2019, Section on Hazardous Medical waste) —No separate HCW strategy
National guidelines or standard operating procedures (SOPs) for HCWM	Safe Medical Waste Management—National Guide to Good Practice (2009)

Policy and Planning Environment

- The Republic of Serbia is aligning its environmental policies and practices with EU standards, including for the waste management sector. Solid waste is among the target areas of the Government's National Agenda for Sustainable Development.
- [The twinning project \(2018–2020\)](#) in "Support to Waste Management Policy," financed by the EU and Serbia, included the development of a National Waste Management Plan, a National Waste Strategy, a [National Waste Prevention Program](#) and a set of economic instruments for the implementation of a Municipal Solid Waste Plan. A strategic goal was to establish a system of medical and pharmaceutical waste management. This project concluded in February 2020, and the status of a draft waste management strategy for the future period is unknown.
- A [UNEP project](#) to build institutional capacity and strengthen synergies between the international waste conventions, signed by Serbia, is under implementation through 2020.

Legal Framework

- The Basel and Stockholm Conventions have been ratified and entered into force in Serbia in the years 2000 and 2009 respectively. The Minamata Convention was signed in 2014.
- The [Law on Waste Management \(Official Gazette of RS, no. 36/09, 88/10, 14/16, 95/18\)](#) establishes:
 - Categories and classification of waste including medical and hazardous medical waste;
 - Waste planning documents (strategy, programs, regional, municipal and operational plans).

1 The World Bank

2 [A Global Snapshot of Solid Waste Management to 2050](#), World Bank, 2018

3 UNDP Serbia Report on COVID-19 Medical Waste, 2020. Average from 2017–2019

4 *Ibid*

5 [Serbian Department of Waste Management, 2018](#)

6 UNDP Serbia Report on COVID-19 Medical Waste, 2020

7 Draft of the new waste strategy (2020–2025) not found during this assessment

- It provides that, “The waste produced as a result of **home health care**, and other similar activities within which medical waste is produced, shall be taken over by an entity carrying out such an activity and that same entity shall provide for its treatment or safe disposal at his expense, in accordance with waste management related regulations.”

Snapshot of COVID-19 Health Care Waste Situation

Declaration of the pandemic	March 19, 2020 ⁸
No. of cumulative confirmed cases as of Sept 18, 2020	32,695
Number of HCFs surveyed	3 (1 responding to COVID-19)
Type of HC waste treatment technology	Auto-clave shredder
Pre COVID-19 HC waste generated (among surveyed)	Insufficient data
HC waste during COVID-19 (among surveyed)	Insufficient data
Types of COVID-19 waste generated	Diagnostic samples, cultures, swabs and disposable medical devices, infected PPE (gloves, masks, gowns)
Emergency activities implemented in HCFs	Yes (restricted appointments, patient screening measures, creation of COVID-19 centers)
Emergency treatment/disposal procedures in place	No
Special COVID-19 training in place	Yes (proper handwashing and use of PPE, best waste handling practices)
Service disruptions due to COVID-19 (among surveyed)	No
Collection, treatment or disposal capacity surpassed?	Insufficient data

Institutional Framework

- MoEP: Prepares the Waste Management Strategy and prescribes content of HCW management plans.
- MoH: Approves HCW management plans.
- SEPA: 1) Compiles and monitors waste data and makes it accessible electronically, 2) Reports on waste management internationally.
- Institute of Public Health: Provides opinions on the healthcare waste management plans of entities producing more than 500 kg of hazardous health care waste on an annual basis.
- Other agencies responsible for waste management: the Local Self Government Units and Autonomous Provinces.

Programs and Actions in Place during COVID-19

- In accordance with the national regulations and the National Guide for Safe Management of Medical Waste, in March 2020 the MoEP prepared instructions for the treatment of infectious and health care waste gener-

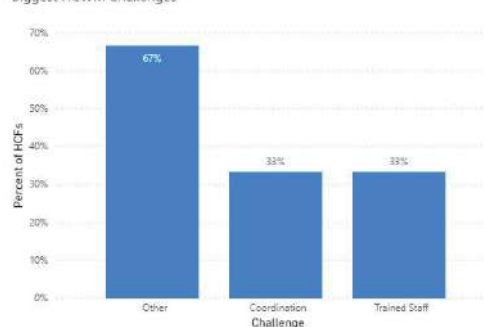
ated during the COVID-19 pandemic. This Instruction was forwarded to all health care institutions.⁹

- The Vinča landfill project for the city of Belgrade continues throughout COVID-19. Projected to be operational in 2022, this project will allow for the closure of one of the largest dumpsites in Europe.¹⁰
- The city of Sombor received a National Green Fund grant to build a municipal waste management system. The cities of Pirot, Novi Sad, and Nova Varoš will develop similar projects.

HCWM Challenges during COVID-19

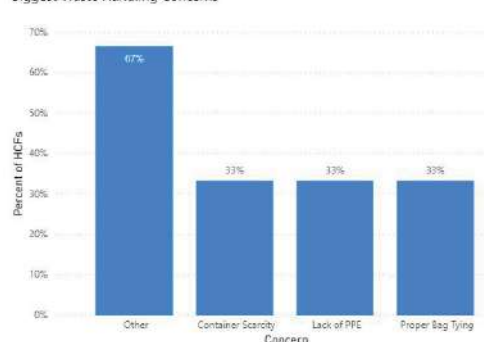
The HCF respondents identified the greatest challenges in HCWM as: **stricter implementation of already established procedures, improved training—other, lack of coordination between departments and agencies, and lack of trained staff:**

Biggest HCWM Challenges



The respondents also identified: **improved training—other** as the major concern for waste handlers. Other issues mentioned were: **container scarcity, lack of PPE and improper bag tying.**

Biggest Waste Handling Concerns



Options for Improvement / Opportunities

- For HCWM: improved training for HCFs.
- Improve the national solid waste management sector by: boosting public funding of infrastructure and allowing small/medium enterprises and private capital to participate in investing in hazardous waste management¹¹, developing municipal waste management to improve waste separation, developing waste co-incineration or use as raw material in cement kilns (this practice, initiated in Serbia 10 years ago, can serve to treat hazardous waste such as pharmaceuticals) and improve waste data monitoring and enforcement of reporting from local governments (and waste producers) to SEPA.¹²

8 UNDP Serbia Report on COVID-19 Medical Waste, 2020

9 Ibid

10 Beo Čista Energija starts drawing EUR 290 million loan for Vinča landfill project (2020)

11 Coronavirus puts medical, infectious waste in security spotlight (2020)

12 Waste management in Serbia—problems, challenges, and possible solutions (2019)