

# Infection Control and Readiness in Health Facilities

## Data from Service Provision Assessment (SPA) Surveys



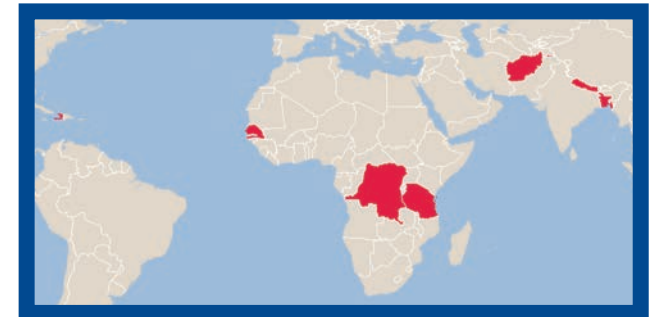
Photo by Yo Pho, stock.adobe.com

### Are facilities prepared to face infectious disease pandemics like COVID-19?

- Do health facilities have resources for hand washing?
- Do health facilities have personal protective equipment such as gloves, masks and gowns?
- Do health facilities store infectious waste appropriately?
- Do health facilities have the diagnostic and therapeutic equipment needed to manage respiratory infections?

These and many other questions are answered, at least in part, by Service Provision Assessment (SPA) surveys. The SPA collects information on general readiness of facilities to provide quality health services.

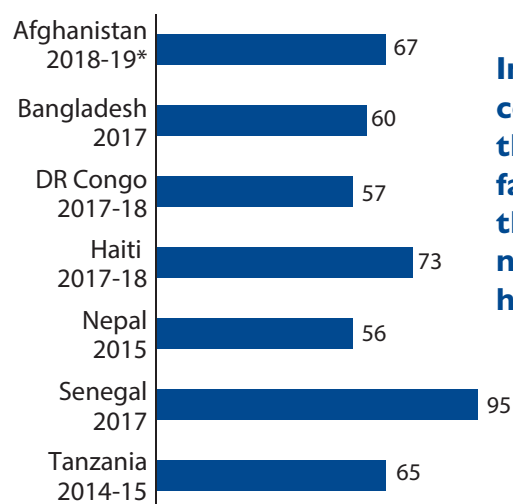
The SPA collects data on many elements necessary for pandemic prevention and mitigation including infection prevention measures, availability of personal protective equipment for health workers, diagnostic capacity, and treatment readiness.



Data are shown from recent SPA surveys in Afghanistan, Bangladesh, the Democratic Republic of Congo, Haiti, Nepal, Senegal, and Tanzania. All of these surveys are nationally representative except for the AfSPA, which included public and private hospitals in urban areas of seven major provinces only.

#### Handwashing Resources

Percent of facilities with soap and running water or alcohol-based hand disinfectant

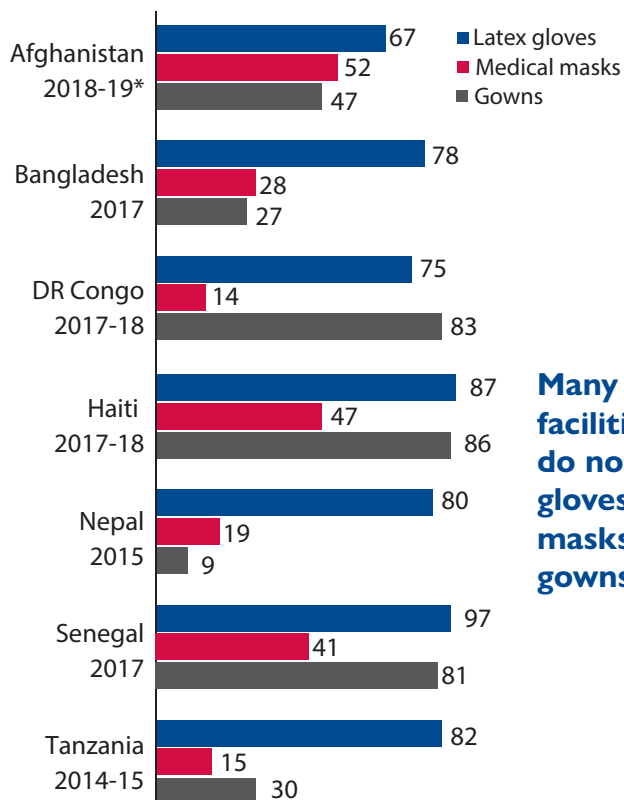


**In 6 out of 7 countries, fewer than 75% of facilities had the resources needed for handwashing.**

\*the Afghanistan survey is based on hospitals in 7 urban provinces only.

#### Availability of Personal Protective Equipment

Percent of facilities with specific equipment

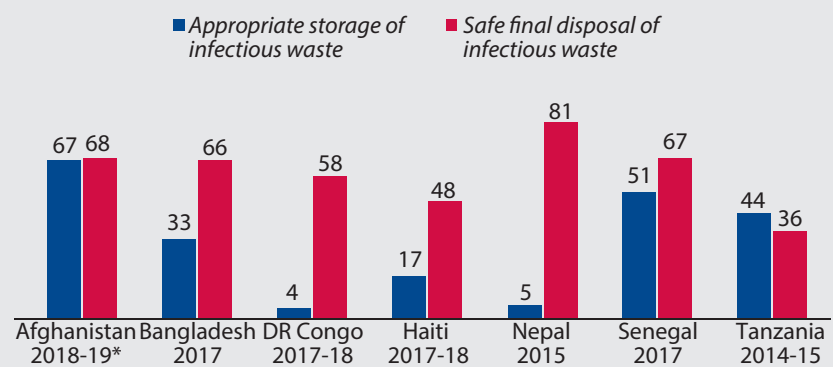


**Many facilities do not have gloves, masks or gowns.**

\*the Afghanistan survey is based on hospitals in 7 urban provinces only.

#### Storage and Disposal of Infectious Waste

Percent of facilities with:



\*the Afghanistan survey is based on hospitals in 7 urban provinces only.

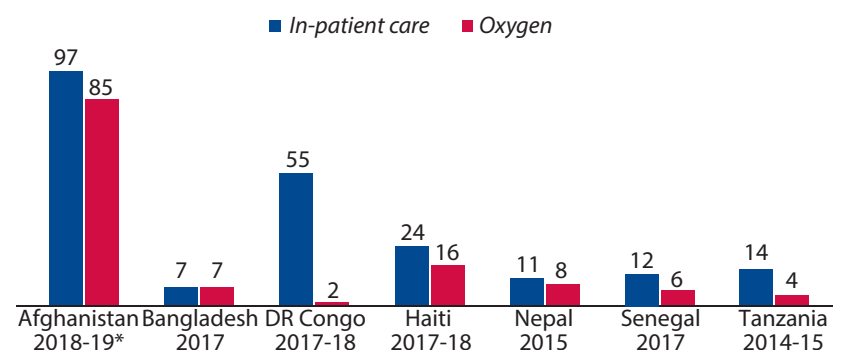
**Fewer than 1/2 of facilities in 5 countries have appropriate storage of infectious waste.**

**Fewer than 1/4 of facilities in 5 countries offer in-patient care.**

**Very few facilities have oxygen.**

#### Availability of In-Patient Care and Oxygen

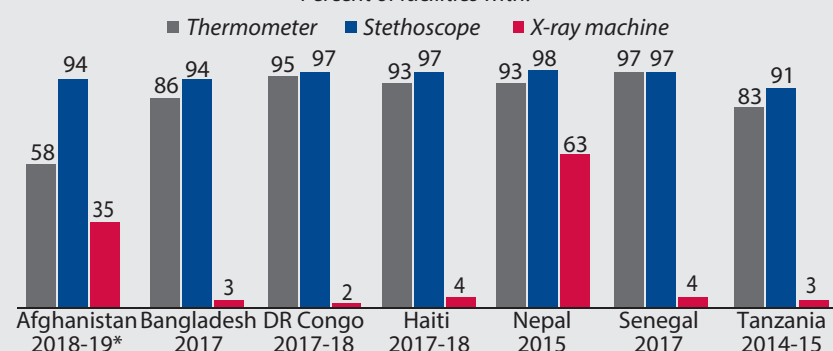
Percent of facilities with:



\*the Afghanistan survey is based on hospitals in 7 urban provinces only.

#### Diagnostic Capacity

Percent of facilities with:



**Most facilities have a thermometer and stethoscope, but very few have an x-ray machine; Nepal is the exception.**

For additional information on the results of the SPA Surveys, contact The DHS Program, ICF, 530 Gaither Road, Rockville, MD 20850, USA. Telephone: 301-572-0200.; [www.dhsprogram.com](http://www.dhsprogram.com)

The Service Provision Assessment Surveys are implemented by ICF through The Demographic and Health Surveys (DHS) Program funded by the United States Agency for International Development (USAID).

# Infection Control and Readiness

## from the Service Provision Assessment (SPA) Surveys

	Afghanistan 2018-19*	Bangladesh 2017	Dem. Rep of Congo 2017-18	Haiti 2017-18	Nepal 2015	Senegal 2017	Tanzania 2014-15
<i>Total number of facilities</i>	142	1524	1380	1007	963	396	1188
<b>Infection Prevention</b>							
Improved water source <sup>1</sup>	94	90	49	86	81	94	68
Regular electricity <sup>2</sup>	97	43	65	76	49	61	67
Client latrine <sup>3</sup>	97	79	29	61	82	99	44
Safe final disposal of infectious waste <sup>4</sup>	68	66	58	48	81	67	36
Appropriate storage of infectious waste <sup>5</sup>	67	33	4	17	5	51	44
Sterilization equipment <sup>6</sup>	90	11	14	35	80	58	27
Equipment for high level disinfection (HLD) <sup>7</sup>	36	33	21	56	na	85	77
Written guidelines for sterilization or HLD <sup>8</sup>	13	11	13	19	4	37	14
Safe final disposal of sharp waste <sup>9</sup>	61	73	58	40	84	91	35
Appropriate storage of sharp waste <sup>10</sup>	54	64	53	73	77	85	79
Disinfectant (environmental) <sup>11</sup>	64	38	43	70	63	87	57
Soap and running water or else alcohol-based hand disinfectant	67	60	57	73	56	95	65
Guidelines for standard precautions <sup>12</sup>	15	17	19	23	4	41	23
<b>Personal Protective Equipment</b>							
Latex gloves <sup>13</sup>	67	78	75	87	80	97	82
Medical masks	52	28	14	47	19	41	15
Gowns	47	27	83	86	9	81	30
Eye protection	7	5	3	13	2	3	6
<b>Diagnostic Capacity</b>							
Thermometer	58	86	95	93	93	97	83
Stethoscope	94	94	97	97	98	97	91
Blood pressure monitor <sup>14</sup>	92	85	90	97	94	96	82
X ray machine	35	3	2	4	63	4	3
Full blood count	88	3	6	30	67	9	9
Blood glucose	33	20	29	44	8	74	23
Liver or renal function tests	86	3	4	10	47	10	6
<b>Therapeutic Readiness</b>							
Self-inflating bag and mask (adult)	27	7	12	17	14	11	10
Pulse oximeter - outpatient area	52	3	3	16	5	6	3
Oxygen-filled oxygen cylinders <sup>15</sup>	85	7	2	16	8	6	4
Inpatient care	97	7	55	24	11	12	14
Overnight observation beds (any)	98	8	94	47	21	89	50
Referral capacity-communication equipment <sup>16</sup>	91	11	52	64	20	55	51
Referral capacity-emergency transport <sup>17</sup>	89	12	19	46	59	57	58

**Notes:**

\* The Afghanistan survey included only hospitals in urban areas of seven major provinces only; it is not nationally representative or directly comparable with the other surveys

NA- Not applicable; data were not collected.

<sup>1</sup>Water is piped into facility or grounds, or else other protected water is available within 500 meters.

<sup>2</sup>Facility is connected to a central power grid and there has not been an interruption in power supply lasting for more than two hours at a time during normal working hours in the seven days before the survey, or facility has a functioning generator with fuel available, or back-up solar power.

<sup>3</sup>The facility had a functioning flush or pour-flush toilet, a VIP latrine, or composting toilet.

<sup>4</sup>The process of infectious waste disposal is incineration, and the facility has a functioning incinerator with fuel, or the facility disposes of infectious waste by means of open burning in a protected area, dumping without burning in a protected area, or removal offsite with storage in a protected area prior to removal.

<sup>5</sup>Waste receptacles observed in general outpatient service area, as well as in area where minor surgery is done.

<sup>6</sup>Facility reports that some instruments are processed in the facility and the facility has a functioning electric dry heat sterilizer, a functioning electric autoclave, or a non-electric autoclave with a functioning heat source available in the facility.

<sup>7</sup>Facility reports that some instruments are processed in the facility and the facility has an electric pot or other pot with heat source for high-level disinfection by boiling or high-level disinfection by steaming, or else facility has chlorine,

formaldehyde, or glutaraldehyde for chemical high-level disinfection available somewhere in the facility on the day of the survey.

<sup>8</sup>Hand-written instructions are pasted on walls and clearly outline the procedures for processing of equipment are acceptable.

<sup>9</sup> The process of sharps waste disposal is incineration, and the facility has a functioning incinerator with fuel on the day of survey, or disposes of sharps waste by means of open burning in a protected area, dumping without burning in a protected area, or removal offsite with storage in a protected area prior to removal offsite

<sup>10</sup> Sharps container observed in general outpatient service area, in area where HIV testing is done if facility does HIV testing, as well as in area where minor surgery is done, if facility does minor surgeries

<sup>11</sup>Chlorine-based or other country-specific disinfectants used for environmental disinfection available in the general outpatient area.

<sup>12</sup>Any guideline for infection control in health facilities available in the general outpatient area

<sup>13</sup>Non-latex equivalent gloves are acceptable.

<sup>14</sup>A digital blood pressure machine or a manual sphygmomanometer with a stethoscope available somewhere in the outpatient area

<sup>15</sup>In cylinders or concentrators or an oxygen distribution system

<sup>16</sup>The facility had a functioning land-line telephone, a functioning facility-owned cellular phone, a private cellular phone that is supported by the facility, or a functioning short wave radio available in the facility.

<sup>17</sup>Facility had a functioning ambulance or other vehicle for emergency transport that is stationed at the facility and had fuel available on the day of the survey, or facility has access to an ambulance or other vehicle for emergency transport that is stationed at another facility or that operates from another facility.