



## Monthly summary report

# Hospital Based Human Influenza Surveillance in Bangladesh

**July 2021**

**Hospital based influenza surveillance**  
**Monthly enrollment by different wards (Medicine, Pediatrics and CCU)**  
**July 2021**

| Hospital | District    | Medicine ward |          |          | Pediatrics ward (≤12 years of age) |           |           | Coronary Care Unit (CCU) |          |           |
|----------|-------------|---------------|----------|----------|------------------------------------|-----------|-----------|--------------------------|----------|-----------|
|          |             | Sample        | Flu      | Flu %    | Sample                             | Flu       | Flu %     | Sample                   | Flu      | Flu %     |
| JIMCH    | Kishoregonj | 58            | 3        | 5        | 19                                 | 7         | 37        | 5                        | 1        | 20        |
| RMCH     | Rajshahi    | 35            | 1        | 3        | 11                                 | 2         | 18        | 0                        | 0        | 0         |
| CuMCH    | Cumilla     | 40            | 2        | 5        | 7                                  | 1         | 14        | 3                        | 0        | 0         |
| KMCH     | Khulna      | 11            | 2        | 18       | 16                                 | 3         | 19        | 0                        | 0        | 0         |
| JGH      | Jashore     | 15            | 0        | 0        | 0                                  | 0         | 0         | 2                        | 0        | 0         |
| JRRMCH   | Sylhet      | 43            | 1        | 2        | 5                                  | 1         | 20        | 0                        | 0        | 0         |
| SBMCH    | Barishal    | 42            | 0        | 0        | 27                                 | 2         | 7         | 0                        | 0        | 0         |
| CMCH     | Chattogram  | 54            | 0        | 0        | 11                                 | 0         | 0         | 0                        | 0        | 0         |
| MARMCH   | Dinajpur    | 27            | 0        | 0        | 8                                  | 2         | 25        | 0                        | 0        | 0         |
|          |             | <b>325</b>    | <b>9</b> | <b>3</b> | <b>104</b>                         | <b>18</b> | <b>17</b> | <b>10</b>                | <b>1</b> | <b>10</b> |



**Hospital based influenza surveillance**  
**Monthly enrollment by different surveillance groups**  
**July 2021**

| Hospital | District    | SARI (aged ≥ 5 years) |           |          | SARI (aged < 5 years) |           |           |
|----------|-------------|-----------------------|-----------|----------|-----------------------|-----------|-----------|
|          |             | Sample                | Flu       | Flu %    | Sample                | Flu       | Flu %     |
| JIMCH    | Kishoregonj | 66                    | 6         | 9        | 16                    | 5         | 31        |
| RMCH     | Rajshahi    | 36                    | 2         | 6        | 10                    | 1         | 10        |
| CuMCH    | Cumilla     | 43                    | 2         | 5        | 7                     | 1         | 14        |
| KMCH     | Khulna      | 13                    | 2         | 15       | 14                    | 3         | 21        |
| JGH      | Jashore     | 17                    | 0         | 0        | 0                     | 0         | 0         |
| JRRMCH   | Sylhet      | 43                    | 1         | 2        | 5                     | 1         | 20        |
| SBMCH    | Barishal    | 44                    | 1         | 2        | 25                    | 1         | 4         |
| CMCH     | Chattogram  | 54                    | 0         | 0        | 11                    | 0         | 0         |
| MARMCH   | Dinajpur    | 30                    | 2         | 7        | 5                     | 0         | 0         |
|          |             | <b>346</b>            | <b>16</b> | <b>5</b> | <b>93</b>             | <b>12</b> | <b>13</b> |

**Hospital based influenza surveillance**  
**Influenza results by different age groups**  
**July 2021**

| Age groups  | July 2021             |           |          |                       |           |           | Initiation - July 2021 |              |           |                  |              |           |                       |            |          |
|-------------|-----------------------|-----------|----------|-----------------------|-----------|-----------|------------------------|--------------|-----------|------------------|--------------|-----------|-----------------------|------------|----------|
|             | SARI (aged ≥ 5 years) |           |          | SARI (aged < 5 years) |           |           | SARI (aged ≥ 5 years)  |              |           | ILI <sup>‡</sup> |              |           | SARI (aged < 5 years) |            |          |
|             | Sample                | Flu       | Flu %    | Sample                | Flu       | Flu %     | Sample                 | Flu          | Flu %     | Sample           | Flu          | Flu %     | Sample                | Flu        | Flu %    |
| <1 Year     | -                     | -         | -        | 62                    | 4         | 6         | -                      | -            | -         | 2665             | 189          | 7         | 7,590                 | 453        | 6        |
| 1-4 Years   | -                     | -         | -        | 31                    | 8         | 26        | -                      | -            | -         | 4217             | 601          | 14        | 2,923                 | 438        | 15       |
| 5-14 Years  | 11                    | 6         | 55       | -                     | -         | -         | 3689                   | 830          | 22        | 2317             | 547          | 24        | -                     | -          | -        |
| 15-24 Years | 18                    | 4         | 22       | -                     | -         | -         | 4318                   | 1003         | 23        | 2167             | 413          | 19        | -                     | -          | -        |
| 25-39 Years | 83                    | 1         | 1        | -                     | -         | -         | 4570                   | 885          | 19        | 1916             | 299          | 16        | -                     | -          | -        |
| 40-59 Years | 121                   | 2         | 2        | -                     | -         | -         | 5702                   | 926          | 16        | 1245             | 201          | 16        | -                     | -          | -        |
| ≥ 60 Years  | 113                   | 3         | 3        | -                     | -         | -         | 5704                   | 903          | 16        | 400              | 46           | 12        | -                     | -          | -        |
|             | <b>346</b>            | <b>16</b> | <b>5</b> | <b>93</b>             | <b>12</b> | <b>13</b> | <b>23,983</b>          | <b>4,547</b> | <b>19</b> | <b>14,927</b>    | <b>2,296</b> | <b>15</b> | <b>10,513</b>         | <b>891</b> | <b>8</b> |

<sup>‡</sup>Outpatient ILI surveillance discontinued in October 2017.

**Hospital based influenza surveillance**  
**Hospitalwise influenza lab results**  
**Surveillance initiation - July 2021**

| Hospital            | District    | Initiation | Sample        | Flu          | Flu %     | Flu A <sup>ψ</sup> | Flu B <sup>λ</sup> | Flu A+B <sup>τ</sup> | Flu A/H1   | Flu A/H3     | Flu A/H5 | Flu A/H7 | Flu A/<br>(H1N1)pdm09 | Flu B<br>Yamagata<br>lineage | Flu B<br>Victoria<br>lineage |
|---------------------|-------------|------------|---------------|--------------|-----------|--------------------|--------------------|----------------------|------------|--------------|----------|----------|-----------------------|------------------------------|------------------------------|
| DNMCH <sup>Y</sup>  | Dhaka       | Jun 2007   | 2061          | 312          | 15        | 201                | 111                | 0                    | 15         | 84           | 0        | 0        | 102                   | 13                           | 7                            |
| CBMCH <sup>Y</sup>  | Mymensingh  | Oct 2007   | 2053          | 302          | 15        | 206                | 96                 | 0                    | 7          | 107          | 1        | 0        | 91                    | 16                           | 10                           |
| JIMCH               | Kishoregonj | Sep 2007   | 5970          | 1158         | 19        | 765 <sup>i</sup>   | 393                | 0                    | 9          | 408          | 0        | 0        | 346                   | 64                           | 159                          |
| RMCH                | Rajshahi    | May 2007   | 4009          | 503          | 13        | 331 <sup>i</sup>   | 172                | 0                    | 14         | 193          | 0        | 0        | 122                   | 39                           | 72                           |
| SZRMCH <sup>Y</sup> | Bogura      | Sep 2007   | 3865          | 653          | 17        | 439                | 213                | 1                    | 12         | 256          | 0        | 0        | 170                   | 29                           | 39                           |
| LAMB <sup>†</sup>   | Dinajpur    | Oct 2007   | 1171          | 112          | 10        | 72                 | 40                 | 0                    | 7          | 41           | 0        | 0        | 24                    | 1                            | 0                            |
| BBMH <sup>†</sup>   | Chattogram  | Aug 2007   | 1440          | 157          | 11        | 118                | 39                 | 0                    | 13         | 42           | 0        | 0        | 63                    | 3                            | 0                            |
| CuMCH <sup>‡</sup>  | Cumilla     | Oct 2007   | 5420          | 660          | 12        | 429 <sup>*</sup>   | 228                | 3                    | 9          | 228          | 0        | 0        | 191                   | 28                           | 50                           |
| KMCH                | Khulna      | Jul 2007   | 3440          | 472          | 14        | 325 <sup>*i</sup>  | 147                | 0                    | 16         | 162          | 0        | 0        | 143                   | 17                           | 69                           |
| JGH <sup>Y†</sup>   | Jashore     | Sep 2007   | 4275          | 862          | 20        | 535                | 326                | 1                    | 10         | 274          | 0        | 0        | 251                   | 26                           | 162                          |
| JRRMCH              | Sylhet      | Jul 2007   | 4302          | 713          | 17        | 442 <sup>i</sup>   | 270                | 1                    | 16         | 222          | 0        | 0        | 203                   | 34                           | 93                           |
| SBMCH               | Barishal    | Aug 2007   | 6198          | 914          | 15        | 576 <sup>i</sup>   | 334                | 4                    | 9          | 293          | 0        | 0        | 272                   | 56                           | 129                          |
| CMCH                | Chattogram  | Apr 2014   | 3191          | 545          | 17        | 363                | 179                | 3                    | 0          | 148          | 0        | 0        | 215                   | 41                           | 118                          |
| MARMCH <sup>2</sup> | Dinajpur    | Apr 2014   | 2028          | 371          | 18        | 234 <sup>i</sup>   | 137                | 0                    | 0          | 122          | 0        | 0        | 109                   | 28                           | 88                           |
|                     |             |            | <b>49,423</b> | <b>7,734</b> | <b>16</b> | <b>5,036</b>       | <b>2,685</b>       | <b>13</b>            | <b>137</b> | <b>2,580</b> | <b>1</b> | <b>0</b> | <b>2,302</b>          | <b>395</b>                   | <b>996</b>                   |

<sup>λ</sup>Influenza B typing initiated in January 2016.

<sup>ψ</sup>rRT-PCR result of four samples were equivocal positive for Influenza A.

<sup>ψ</sup>One sample collected in June 2013 and another sample collected in June 2017 were co-infected with both A(H3) and A(H1N1)pdm09.

<sup>λ</sup>Three samples were co-infected with both Influenza B (Yamagata lineage) and Influenza B (Victoria lineage), another ten samples were unsubtypeable.

<sup>τ</sup>Three samples were co-infected with both Influenza A(H1N1)pdm09 and Influenza B (Victoria lineage).

<sup>i</sup>One sample collected in May 2019 was co-infected with both Influenza A(H3) and Influenza B (Victoria lineage).

<sup>†</sup>Surveillance activities ended at LAMB (Dinajpur) and BBMH (Chittagong) in May 2016.

<sup>Y</sup>Surveillance activities ended at DNMCH (Dhaka), CBMCH (Mymensingh), SZRMCH (Bogra) and JGH (Jessore) in October 2017.

<sup>‡</sup>Surveillance activities reinitiated at Cumilla Medical College Hospital (CuMCH), Cumilla in January 2018.

<sup>‡</sup>Surveillance activities reinitiated at Jashore 250 bed General Hospital (JGH), Jashore in December 2018.

<sup>2</sup>Dinajpur Medical College Hospital (DjMCH) has been renamed as M Abdur Rahim Medical College Hospital (MARMCH).

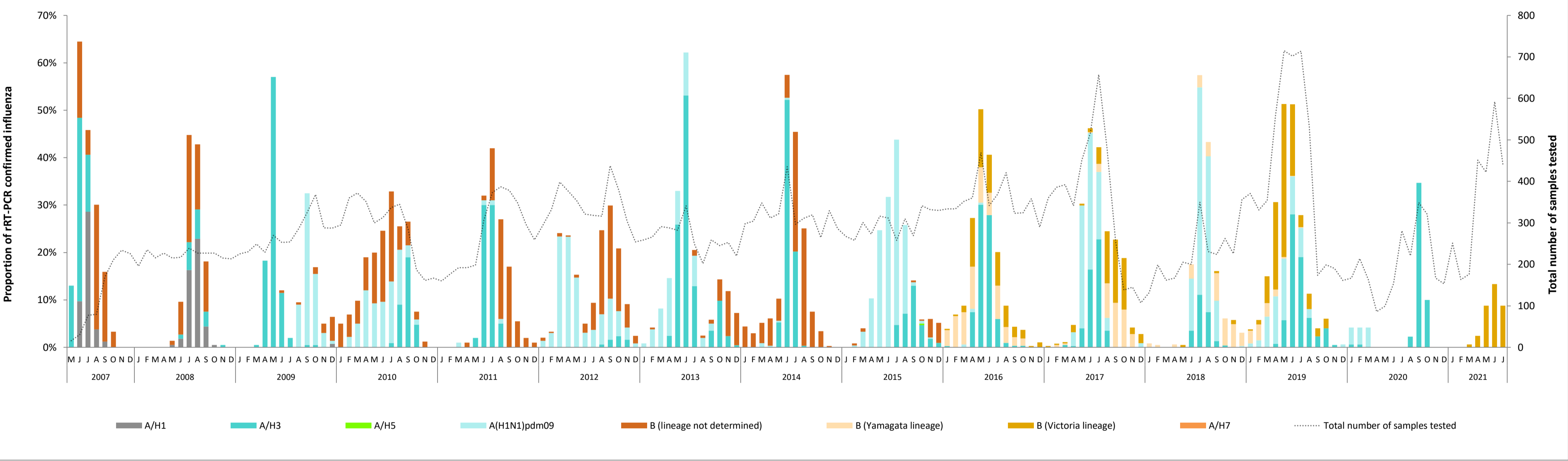
Note: Surveillance activities extended to the intensive care units (ICU) and coronary care unit (CCU) of the participating hospitals in January 2018.

<sup>φ</sup> Intensive care units (ICU) surveillance discontinued in January 2019.

\*One sample from CuMCH (Cumilla) and two samples from KMCH (Khulna) collected in November 2019 were not true positive for influenza A and were considered as inconclusive result. The result will be confirmed with further test through viral culture.

<sup>i</sup>Nine samples (one each from JIMCH, JRRMCH and MARMCH and two each from RMCH, KMCH and SBMCH) collected in December 2019 were not true positive for influenza A and were considered as inconclusive result. The result will be confirmed with further test through viral culture.

**Hospital based influenza surveillance  
Influenza seasonality graph  
May 2007 - July 2021**



Note: Influenza B typing initiated in January 2016

**Hospital based influenza surveillance**  
**Influenza seasonality graph**  
**Week 31 of 2020 to week 30 of 2021**

