



Monthly summary report

Hospital Based Human Influenza Surveillance in Bangladesh

January 2017

Hospital based influenza surveillance

Monthly hospitalwise influenza lab results

January 2017

| Hospital | District | Sample | Flu | Flu % | Flu A | Flu B | Flu A+B | Flu A/H1 | Flu A/H3 | Flu A/H5 | Flu A/ (H1N1)pdm09 | Flu B Yamagata lineage | Flu B Victoria lineage |
|----------|-------------|--------|-----|-------|-------|-------|---------|----------|----------|----------|-----------------------|------------------------------|------------------------------|
| DNMCH | Dhaka | 21 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CBMCH | Mymensingh | 20 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| JIMCH | Kishoregonj | 48 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| RMCH | Rajshahi | 24 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SZRMCH | Bogra | 36 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CoMCH | Comilla | 31 | 1 | 3% | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| KMCH | Khulna | 17 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| JGH | Jessore | 33 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| JRRMCH | Sylhet | 28 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SBMCH | Barisal | 51 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CMCH | Chittagong | 32 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| DjMCH | Dinajpur | 19 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 360 | 1 | 0.3% | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

Hospital based influenza surveillance
Monthly enrollment by different surveillance groups
January 2017

| Hospital | District | SARI (aged ≥ 5 years) [‡] | | | ILI [‡] | | | SARI (aged < 5 years) [‡] | | |
|----------|-------------|------------------------------------|----------|-----------|------------------|----------|-----------|------------------------------------|----------|-----------|
| | | Sample | Flu | Flu % | Sample | Flu | Flu % | Sample | Flu | Flu % |
| DNMCH | Dhaka | 15 | 0 | 0% | - | - | - | 6 | 0 | 0% |
| CBMCH | Mymensingh | 15 | 0 | 0% | - | - | - | 5 | 0 | 0% |
| JIMCH | Kishoregonj | 31 | 0 | 0% | 12 | 0 | 0% | 5 | 0 | 0% |
| RMCH | Rajshahi | 19 | 0 | 0% | - | - | - | 5 | 0 | 0% |
| SZRMCH | Bogra | 17 | 0 | 0% | 13 | 0 | 0% | 6 | 0 | 0% |
| CoMCH | Comilla | 14 | 0 | 0% | 12 | 1 | 8% | 5 | 0 | 0% |
| KMCH | Khulna | 12 | 0 | 0% | - | - | - | 5 | 0 | 0% |
| JGH | Jessore | 12 | 0 | 0% | 16 | 0 | 0% | 5 | 0 | 0% |
| JRRMCH | Sylhet | 13 | 0 | 0% | 10 | 0 | 0% | 5 | 0 | 0% |
| SBMCH | Barisal | 30 | 0 | 0% | 15 | 0 | 0% | 6 | 0 | 0% |
| CMCH | Chittagong | 27 | 0 | 0% | - | - | - | 5 | 0 | 0% |
| DJMCH | Dinajpur | 14 | 0 | 0% | - | - | - | 5 | 0 | 0% |
| | | 219 | 0 | 0% | 78 | 1 | 1% | 63 | 0 | 0% |

[‡] All SARI samples (aged ≥ 5 years) collected throughout the month from medicine and pediatrics inpatients.

[‡] All ILI samples (all age groups) collected during 4 days in each month from both medicine and pediatrics OPD of selected six hospitals.

[‡] First five SARI (aged <5 years) collected from pediatrics inpatients. More than five SARI (aged <5 years) cases belong to the cluster.

Hospital based influenza surveillance
Influenza results by different age groups
January 2017

| Age groups | January 2017 | | | | | | | | | Initiation - January 2017 | | | | | | | | |
|-------------|------------------------------------|----------|-----------|------------------|----------|-----------|------------------------------------|----------|-----------|------------------------------------|--------------|------------|------------------|--------------|------------|------------------------------------|------------|-----------|
| | SARI (aged ≥ 5 years) [‡] | | | ILI [‡] | | | SARI (aged < 5 years) [‡] | | | SARI (aged ≥ 5 years) [‡] | | | ILI [‡] | | | SARI (aged < 5 years) [‡] | | |
| | Sample | Flu | Flu % | Sample | Flu | Flu % | Sample | Flu | Flu % | Sample | Flu | Flu % | Sample | Flu | Flu % | Sample | Flu | Flu % |
| <1 Year | - | - | - | 18 | 0 | 0% | 37 | 0 | 0% | - | - | - | 2548 | 171 | 7% | 4673 | 188 | 4% |
| 1-4 Years | - | - | - | 25 | 0 | 0% | 26 | 0 | 0% | - | - | - | 3985 | 547 | 14% | 1454 | 128 | 9% |
| 5-14 Years | 50 | 0 | 0% | 8 | 0 | 0% | - | - | - | 2061 | 388 | 19% | 2171 | 499 | 23% | - | - | - |
| 15-24 Years | 41 | 0 | 0% | 13 | 1 | 8% | - | - | - | 2462 | 511 | 21% | 2073 | 386 | 19% | - | - | - |
| 25-39 Years | 29 | 0 | 0% | 5 | 0 | 0% | - | - | - | 2489 | 475 | 19% | 1830 | 284 | 16% | - | - | - |
| 40-59 Years | 59 | 0 | 0% | 5 | 0 | 0% | - | - | - | 2788 | 488 | 18% | 1171 | 182 | 16% | - | - | - |
| ≥ 60 Years | 40 | 0 | 0% | 4 | 0 | 0% | - | - | - | 2883 | 507 | 18% | 382 | 41 | 11% | - | - | - |
| | 219 | 0 | 0% | 78 | 1 | 1% | 63 | 0 | 0% | 12,683 | 2,369 | 19% | 14,160 | 2,110 | 15% | 6,127 | 316 | 5% |

[‡] All SARI samples (aged ≥ 5 years) collected throughout the month from medicine and pediatrics inpatients.

[‡] All ILI samples (all age groups) collected during 4 days in each month from both medicine and pediatrics OPD of selected six hospitals.

[‡] First five SARI (aged <5 years) collected from pediatrics inpatients. More than five SARI (aged <5 years) cases belong to the cluster.

Hospital based influenza surveillance
Hospitalwise influenza lab results
Surveillance initiation - January 2017

| Hospital | District | Initiation | Sample [‡] | Flu | Flu % | Flu A ^ψ | Flu B ^λ | Flu A+B | Flu A/H1 | Flu A/H3 | Flu A/H5 | Flu A/ (H1N1)pdm09 | Flu B Yamagata lineage | Flu B Victoria lineage |
|-------------------|-------------|------------|---------------------|--------------|------------|--------------------|--------------------|----------|------------|--------------|----------|-----------------------|------------------------------|------------------------------|
| DNMCH | Dhaka | Jun 2007 | 1865 | 268 | 14% | 167 | 101 | 0 | 15 | 72 | 0 | 80 | 8 | 2 |
| CBMCH | Mymensingh | Oct 2007 | 1876 | 266 | 14% | 182 | 84 | 0 | 7 | 95 | 1 | 79 | 11 | 3 |
| JIMCH | Kishoregonj | Sep 2007 | 3589 | 639 | 18% | 429 | 210 | 0 | 9 | 241 | 0 | 178 | 21 | 19 |
| RMCH | Rajshahi | May 2007 | 2280 | 241 | 11% | 157 | 84 | 0 | 14 | 93 | 0 | 50 | 11 | 12 |
| SZRMCH | Bogra | Sep 2007 | 3478 | 546 | 16% | 359 | 186 | 1 | 12 | 208 | 0 | 138 | 23 | 18 |
| LAMB [†] | Dinajpur | Oct 2007 | 1171 | 112 | 10% | 72 | 40 | 0 | 7 | 41 | 0 | 24 | 1 | 0 |
| BBMH [†] | Chittagong | Aug 2007 | 1440 | 157 | 11% | 118 | 39 | 0 | 13 | 42 | 0 | 63 | 3 | 0 |
| CoMCH | Comilla | Oct 2007 | 3967 | 507 | 13% | 327 | 178 | 2 | 9 | 170 | 0 | 148 | 22 | 6 |
| KMCH | Khulna | Jul 2007 | 1994 | 254 | 13% | 178 | 76 | 0 | 16 | 101 | 0 | 61 | 7 | 8 |
| JGH | Jessore | Sep 2007 | 3024 | 524 | 17% | 331 | 192 | 1 | 10 | 179 | 0 | 142 | 11 | 43 |
| JRRMCH | Sylhet | Jul 2007 | 2803 | 464 | 17% | 283 | 180 | 1 | 16 | 130 | 0 | 137 | 12 | 25 |
| SBMCH | Barisal | Aug 2007 | 4056 | 551 | 14% | 350 | 198 | 3 | 9 | 178 | 0 | 165 | 20 | 29 |
| CMCH | Chittagong | Apr 2014 | 797 | 137 | 17% | 83 | 53 | 1 | 0 | 50 | 0 | 33 | 19 | 14 |
| DJMCH | Dinajpur | Apr 2014 | 630 | 129 | 20% | 79 | 50 | 0 | 0 | 56 | 0 | 21 | 20 | 9 |
| | | | 32,970 | 4,795 | 15% | 3,115 | 1,671 | 9 | 137 | 1,656 | 1 | 1,319 | 189 | 188 |

^λInfluenza B typing initiated in January 2016.

[‡]Analysis excluded two samples September 2016, which will undergo repeat rRT-PCR.

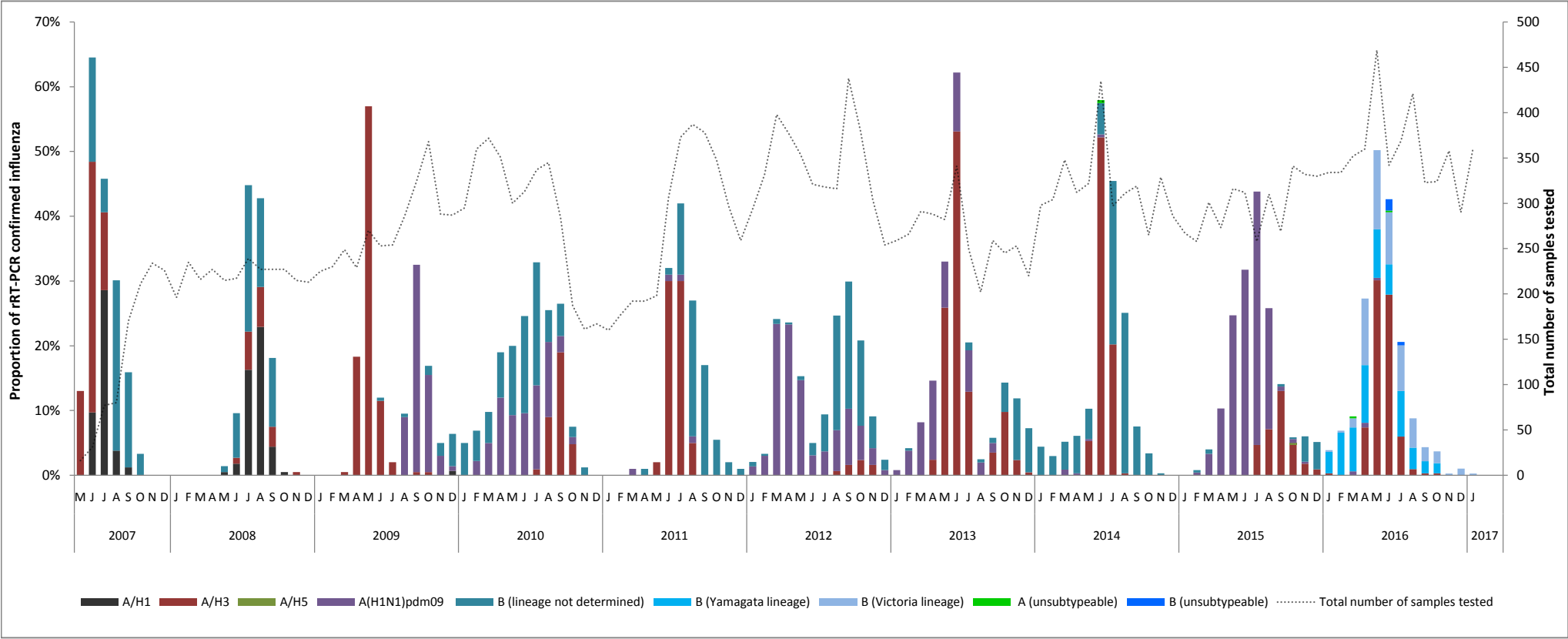
^ψrRT-PCR result of four samples were equivocal positive for Influenza A.

^ψOne sample collected in June 2013 was co-infected with both A(H3) and A(H1N1)pdm09.

^λThree samples were co-infected with both Influenza B (Yamagata lineage) and Influenza B (Victoria lineage), another eight samples were unsubtypeable.

[†]Surveillance activities ended at LAMB (Dinajpur) and BBMH (Chittagong) in May 2016.

Hospital based influenza surveillance
Influenza seasonality graph
May 2007 - January 2017



Note: Influenza B typing initiated in January 2016