**Supplementary figures**

***Table S1: Types of costs by perspective***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| **Total cost from the societal perspective** | **Total cost from the household perspective**(Caregiver) |  | **Total economic cost for the caregiver** |
|  | **Total direct (financial) cost for the caregiver** |  |  |  |
|  | **Direct costs** |  |  | **Indirect costs** |
|  | **Medical costs:** | **Non-medical costs:** |  |  |
|  | * Consultation or registration fees
* Cost of investigations/diagnosis (radiology, laboratory tests)
* Cost of hospitalization/bed for the patient
* Cost of medications
* Cost of medical supplies
 | * Cost of transportation to and from the healthcare facilities for the patient and the caregiver
* Cost of meals for the patient and the caregiver during hospitalization
* Miscellaneous costs (telephone calls, gifts from visitors)
 |  |  | * Productivity loss for the caregiver related to the acute episode of illness based on the time spent in the healthcare system
 |
|  |  |  |  |  |  |  |
| **Total cost from the healthcare provider perspective** (Government) |  | **Service costs:** |  |
|  | * Capital costs (infrastructure, furniture, vehicles, laboratory and radiology instruments)
* Cost of personnel (full-time, part-time and on-call staff)
* Cost of overhead (building maintenance, utilities)
* Cost of hospitalization/bed
* Cost of medications
* Cost of medical supplies
 |  |
|  |  |  |  |  |

***Table S2: Total caregiver costs for a hospitalized episode of measles in 2018 BDT***

|  |
| --- |
| **INPATIENT VISIT** |
| **Timing** | **Cost** | **Public healthcare facilities (n=69)** | **Private not-for-profit healthcare facilities (n=22)** |
| Mean | SD | 95% CI | n(c>0) | Mean | SD | 95% CI | n(c>0) |
| **Before current visit[A]** | Direct medical | 295 | 566 | 159 | 431 | 31 | 599 | 563 | 349 | 848 | 17 |
| Direct non-medical | 30 | 134 | -2 | 63 | 4 | 127 | 286 | 0 | 254 | 5 |
| Indirect | 2409 | 2507 | 1802 | 3016 | 69 | 2064 | 1922 | 1212 | 2916 | 22 |
| *Time loss [days]* | 1.54 | 1.24 | 1.25 | 1.84 | 69 | 1.13 | 0.67 | 0.84 | 1.42 | 22 |
| **Current visit** | Direct medical | 1223 | 851 | 1018 | 1427 | 69 | 3542 | 1768 | 2758 | 4326 | 22 |
| Direct non-medical | 2171 | 1145 | 1895 | 2446 | 69 | 2365 | 1231 | 1819 | 2911 | 22 |
| Indirect | 4552 | 3575 | 3693 | 5411 | 69 | 6251 | 4613 | 4206 | 8297 | 22 |
| *Time loss [days]* | 2.88 | 1.41 | 2.54 | 3.21 | 69 | 3.25 | 0.93 | 2.84 | 3.66 | 22 |
| **Follow-up[A]** | Direct medical | 215 | 242 | 157 | 273 | 52 | 256 | 250 | 146 | 367 | 16 |
| Direct non-medical | 45 | 361 | -42 | 131 | 2 | 9 | 25 | -2 | 20 | 3 |
| Indirect | 37 | 301 | -36 | 109 | 2 | 0 | 0 | 0 | 0 | 0 |
| *Time loss [days]* | 0.04 | 0.30 | -0.04 | 0.11 | 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| **Total direct (financial) cost** | **3978** | **1826** | **3735** | **4628** | **69** | **6898** | **2916** | **5847** | **8460** | **22** |
| **Total economic cost** | **10941** | **6985** | **9263** | **12619** | **69** | **15214** | **8065** | **11638** | **18789** | **22** |
| **OUTPATIENT VISIT** |
| **Timing** | **Cost** | **Public healthcare facilities (n=4)** |
| Mean | SD | 95% CI | n(c>0) |
| **Before current visit[A]** | Direct medical | 0 | 0 | 0 | 0 | 0 |
| Direct non-medical | 0 | 0 | 0 | 0 | 0 |
| Indirect | 24 | 26 | -17 | 65 | 4 |
| *Time loss [days]* | 0.02 | 0.03 | -0.02 | 0.07 | 4 |
| **Current visit** | Direct medical | 2 | 2 | 0 | 3 | 3 |
| Direct non-medical | 5 | 5 | -11 | 21 | 1 |
| Indirect | 1112 | 1632 | -1486 | 3709 | 4 |
| *Time loss [days]* | 1.10 | 1.64 | -1.51 | 3.71 | 4 |
| **Follow-up[A]** | Direct medical | 174 | 202 | -148 | 495 | 2 |
| Direct non-medical | 30 | 60 | -65 | 125 | 1 |
| Indirect | 11 | 22 | -24 | 46 | 1 |
| *Time loss [days]* | 0.01 | 0.02 | -0.02 | 0.04 | 1 |
| **Total direct (financial) cost** | **210** | **241** | **-302** | **1020** | **4** |
| **Total economic cost** | **1357** | **1784** | **-1482** | **4196** | **4** |

Legend: SD, Standard Deviation; n(c>0), number of caregivers with a cost/time spent valued over zero.
[A] Includes costs incurred at public and private healthcare facilities and providers.

***Table S3: Differences in caregiver costs in 2018 US dollars ($)***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Characteristic** | **n** | **Direct costs** | **Indirect costs** | **Total costs** |
| Mean | SE |  p-value | Mean | SE | p-value | Mean | SE | p-value |
| **Overall** | **95** | **$53.84** | **$3.17** | **-** | **$84.20** | **$7.10** | **-** | **$138.05** | **$9.34** | **-** |
| **Age group** |  |  |  |  |  |  |  |  |  |  |
| < 6 months | 16 | $42.69 | $4.95 | 0.143 | $80.10 | $9.38 | 0.108 | $122.79 | $11.29 | 0.250 |
| 6-11 months | 39 | $62.07 | $5.62 |  | $101.09 | $14.17 |  | $163.15 | $18.18 |  |
| 12-24 months | 19 | $51.15 | $7.09 |  | $60.63 | $10.69 |  | $111.78 | $15.71 |  |
| > 24 months | 21 | $49.49 | $5.90 |  | $77.31 | $12.93 |  | $126.79 | $17.59 |  |
| **Gender (child)** |  |  |  |  |  |  |  |  |  |  |
| Female | 39 | $50.91 | $5.21 | 0.442 | $68.60 | $7.50 | 0.120 | $119.51 | $11.98 | 0.098 |
| Male | 56 | $55.88 | $3.98 |  | $95.07 | $10.68 |  | $150.96 | $13.28 |  |
| **Gender (caregiver)** |  |  |  |  |  |  |  |  |  |  |
| Female | 78 | $51.31 | $3.10 | 0.298 | $87.41 | $8.12 | 0.337 | $138.72 | $10.31 | 0.879 |
| Male | 17 | $65.47 | $10.35 |  | $69.51 | $13.57 |  | $134.97 | $22.72 |  |
| **Study area** |  |  |  |  |  |  |  |  |  |  |
| City corp. | 86 | $56.25 | $3.23 | 0.003 | $85.05 | $7.45 | 0.715 | $141.29 | $9.71 | 0.284 |
| *Sylhet* | 86 | $56.25 | $3.23 | *-* | $85.05 | $7.45 | *-* | $141.29 | $9.71 | *-* |
| *Rajshahi* | 0 | - | - |  | - | - |  | - | - |  |
| Rural district | 9 | $30.83 | $10.34 |  | $76.13 | $24.95 |  | $106.96 | $33.35 |  |
| *Maulvibazar* | 5 | $53.46 | $9.76 | *0.139* | $126.06 | $27.94 | *0.049* | $179.52 | $31.20 | *0.014* |
| *Natore*[A] | 4 | $2.51 | $1.44 |  | $13.74 | $9.88 |  | $16.25 | $10.68 |  |
| **Residence** |  |  |  |  |  |  |  |  |  |  |
| Rural | 84 | $56.18 | $3.28 | 0.040 | $86.65 | $7.92 | 0.524 | $142.84 | $10.20 | 0.158 |
| Urban | 11 | $35.96 | $9.74 |  | $65.51 | $9.35 |  | $101.47 | $18.04 |  |
| **Type of visit**  |  |  |  |  |  |  |  |  |  |  |
| Inpatient | 91 | $56.10 | $3.10 | 0.000 | $87.31 | $7.23 | 0.000 | $143.40 | $9.34 | 0.000 |
| Outpatient | 4 | $2.51 | $1.44 |  | $13.74 | $9.88 |  | $16.25 | $10.68 |  |
| **Facilities** |  |  |  |  |  |  |  |  |  |  |
| Public | 73 | $45.17 | $2.77 | 0.000 | $79.57 | $8.06 | 0.237 | $124.74 | $10.01 | 0.009 |
| PNFP | 22 | $82.61 | $7.45 |  | $99.58 | $14.96 |  | $182.20 | $20.59 |  |
| **Length of stay (IPD)[B]** |  |  |  |  |  |  |  |  |  |  |
| < 5 days | 24 | $44.34 | $5.10 | 0.022 | $54.08 | $7.51 | 0.000 | $98.42 | $10.36 | 0.000 |
| >= 5 days | 67 | $60.31 | $3.68 |  | $99.20 | $9.05 |  | $159.51 | $11.56 |  |
| **Asset quintiles[C]** |  |  |  |  |  |  |  |  |  |  |
| Poorest | 27 | $50.31 | $3.23 | 0.099 | $67.54 | $7.13 | 0.001 | $117.86 | $8.83 | 0.006 |
| 2nd | 11 | $33.45 | $9.65 |  | $38.55 | $11.04 |  | $72.00 | $19.11 |  |
| 3rd | 20 | $54.74 | $5.04 |  | $69.96 | $6.48 |  | $124.69 | $8.44 |  |
| 4th | 18 | $63.76 | $6.50 |  | $96.26 | $16.49 |  | $160.02 | $21.04 |  |
| Richest | 19 | $60.32 | $11.05 |  | $137.87 | $24.84 |  | $198.19 | $33.40 |  |

Legend: SE, Standard Error; n, number of caregivers.
[A] All cases in Natore district (Rajshahi division) were outpatient cases.
[B] Length of stay includes only hospitalized cases of measles (n = 91).
[C] The 2nd quintile (n = 11) contains all 4 outpatient cases, hence lower costs.

***Table S4: Differences in caregiver costs in 2018 BDT***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Characteristic** | **n** | **Direct costs** | **Indirect costs** | **Total costs** |
| Mean | SE |  p-value | Mean | SE | p-value | Mean | SE | p-value |
| **Overall** | **95** | **4496** | **265** | **-** | **7031** | **593** | **-** | **11527** | **780** | **-** |
| **Age group** |  |  |  |  |  |  |  |  |  |  |
| < 6 months | 16 | 3565 | 413 | 0.143 | 6688 | 783 | 0.108[B] | 10253 | 943 | 0.250[B] |
| 6-11 months | 39 | 5183 | 469 |  | 8441 | 1183 |  | 13623 | 1518 |  |
| 12-24 months | 19 | 4271 | 592 |  | 5063 | 893 |  | 9334 | 1312 |  |
| > 24 months | 21 | 4132 | 493 |  | 6455 | 1080 |  | 10587 | 1469 |  |
| **Gender (child)** |  |  |  |  |  |  |  |  |  |  |
| Female | 39 | 4251 | 435 | 0.442 | 5728 | 626 | 0.120[B] | 9979 | 1000 | 0.098[B] |
| Male | 56 | 4666 | 332 |  | 7938 | 892 |  | 12605 | 1109 |  |
| **Gender (caregiver)** |  |  |  |  |  |  |  |  |  |  |
| Female | 78 | 4284 | 259 | 0.298[B] | 7299 | 678 | 0.337 | 11583 | 861 | 0.879[B] |
| Male | 17 | 5467 | 864 |  | 5804 | 1133 |  | 11270 | 1897 |  |
| **Study area** |  |  |  |  |  |  |  |  |  |  |
| City corp. | 86 | 4697 | 270 | 0.003[B] | 7102 | 622 | 0.715 | 11798 | 811 | 0.284[B] |
| *Sylhet* | 86 | 4697 | 270 | *-* | 7102 | 622 | *-* | 11798 | 811 | *-* |
| *Rajshahi* | 0 | - | - |  | - | - |  | - | - |  |
| Rural district | 9 | 2574 | 863 |  | 6357 | 2083 |  | 8931 | 2785 |  |
| *Maulvibazar* | 5 | 4464 | 815 | *0.139*[B] | 10526 | 2333 | *0.049* | 14990 | 2605 | *0.014*[B] |
| *Natore*[C] | 4 | 210 | 120 |  | 1147 | 825 |  | 1357 | 892 |  |
| **Residence** |  |  |  |  |  |  |  |  |  |  |
| Rural | 84 | 4691 | 274 | 0.040 | 7235 | 661 | 0.524[B] | 11927 | 852 | 0.158 |
| Urban | 11 | 3003 | 813 |  | 5470 | 781 |  | 8473 | 1506 |  |
| **Type of visit**  |  |  |  |  |  |  |  |  |  |  |
| Inpatient | 91 | 4684 | 259 | 0.000[B] | 7290 | 604 | 0.000[B] | 11974 | 780 | 0.000 |
| Outpatient | 4 | 210 | 120 |  | 1147 | 825 |  | 1357 | 892 |  |
| **Facilities** |  |  |  |  |  |  |  |  |  |  |
| Public | 73 | 3772 | 231 | 0.000[B] | 6644 | 673 | 0.237[B] | 10416 | 836 | 0.009 |
| PNFP | 22 | 6898 | 622 |  | 8315 | 1249 |  | 15214 | 1719 |  |
| **Length of stay (IPD)[A]** |  |  |  |  |  |  |  |  |  |  |
| < 5 days | 24 | 3702 | 426 | 0.022 | 4516 | 627 | 0.000[B] | 8218 | 865 | 0.000[B] |
| >= 5 days | 67 | 5036 | 307 |  | 8283 | 756 |  | 13319 | 965 |  |
| **Asset quintiles[D]** |  |  |  |  |  |  |  |  |  |  |
| Poorest | 27 | 4201 | 270 | 0.099[B] | 5640 | 595 | 0.001[B] | 9841 | 737 | 0.006[B] |
| 2nd | 11 | 2793 | 806 |  | 3219 | 922 |  | 6012 | 1596 |  |
| 3rd | 20 | 4571 | 421 |  | 5842 | 541 |  | 10412 | 705 |  |
| 4th | 18 | 5324 | 543 |  | 8038 | 1377 |  | 13362 | 1757 |  |
| Richest | 19 | 5037 | 923 |  | 11512 | 2074 |  | 16549 | 2789 |  |

Legend: SE, Standard Error; n, number of caregivers.
[A] All cases in Natore district (Rajshahi division) were outpatient cases.
[B] Length of stay includes only hospitalized cases of measles (n = 91).
[C] The 2nd quintile (n = 11) contains all 4 outpatient cases, hence lower costs.

***Table S5: Government costs for an episode of measles in 2018 BDT.***

|  |  |  |
| --- | --- | --- |
| **Level, name & type of care** | n | **Service costs** |
| Capital | Overhead | Labor | Supplies | Medications | **Total** |
| **Primary level** |  |  |  |  |  |  |  |
| Bashbaria Community Clinic |  |  |  |  |  |  |  |
| *Outpatient care* | 1 | 38.21 | 0.28 | 45.40 | 0 | 0 | **83.89** |
| Baraigram Upazila Health Complex |  |  |  |  |  |  |  |
| *Outpatient care* | 2 | 6.97 | 10.72 | 82.76 | 1.34 | 41.00 | **142.79** |
| Zoary Union Sub Center |  |  |  |  |  |  |  |
| *Outpatient care* | 1 | 19.03 | 0.21 | 100.02 | 0 | 0 | **119.26** |
|  |  |  |  |  |  |  |  |
| **Secondary level** |  |  |  |  |  |  |  |
| Moulvibazar District Hospital, Moulvibazar |  |  |  |  |  |  |  |
| *Inpatient care* | 5 | 26.44 | 81.64 | 480.73 | 17.63 | 859.92 | **1466.36** |
|  |  |  |  |  |  |  |  |
| **Tertiary level** |  |  |  |  |  |  |  |
| Sylhet M. A. G. Osmani Medical College Hospital |  |  |  |  |  |  |  |
| *Inpatient care* | 64 | 110.09 | 67.83 | 858.85 | 77.19 | 796.15 | **1910.11** |

Legend: n, number of caregivers interviewed at the facility.

***Figure S1: Societal costs for measles in Bangladesh in 2018 BDT***

***Table S6: Household costs for a hospitalized episode of measles in 2018 BDT.***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Timing** | **Type** | **Cost** | **Public healthcare facilities (n=69)** | **Private not-for-profit healthcare facilities (n=22)** |
| Mean | SD | 95% CI | n(c>0) | Mean | SD | 95% CI | n(c>0) |
| **Before current visit[A]** | **Direct medical costs** | Consultation | 93 | 243 | 35 | 152 | 21 | 128 | 214 | 33 | 223 | 10 |
| Investigations | 42 | 243 | -16 | 100 | 3 | 2 | 11 | -2 | 7 | 1 |
| Medications | 160 | 306 | 86 | 233 | 27 | 469 | 519 | 238 | 699 | 17 |
| Hospitalization | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **295** | **566** | **159** | **431** | **31** | **599** | **563** | **349** | **848** | **17** |
| **Direct non-medical costs** | Meals | 15 | 70 | -2 | 32 | 4 | 77 | 222 | -21 | 176 | 4 |
| Other | 15 | 73 | -2 | 33 | 3 | 50 | 134 | -9 | 109 | 4 |
| **Total** | **30** | **134** | **-2** | **63** | **4** | **127** | **286** | **0** | **254** | **5** |
| **Indirect costs** | Time loss [days] | 1.54 | 1.24 | 1.25 | 1.84 | 69 | 1.13 | 0.67 | 0.84 | 1.42 | 22 |
| **Productivity loss** | **2409** | **2507** | **1802** | **3016** | **69** | **2064** | **1922** | **1212** | **2916** | **22** |
| **Current** | **Direct medical costs** | Consultation | 25 | 4 | 24 | 26 | 69 | 70 | 25 | 59 | 82 | 22 |
| Investigations | 396 | 500 | 276 | 516 | 38 | 68 | 261 | -47 | 184 | 2 |
| Medications | 802 | 752 | 621 | 983 | 67 | 2049 | 1422 | 1418 | 2679 | 22 |
| Hospitalization | 0 | 0 | 0 | 0 | 0 | 1355 | 1224 | 812 | 1897 | 22 |
| **Total** | **1223** | **851** | **1018** | **1427** | **69** | **3542** | **1768** | **2758** | **4326** | **22** |
| **Direct non-medical costs** | Transportation | 943 | 774 | 758 | 1129 | 69 | 840 | 893 | 444 | 1236 | 22 |
| Meals | 901 | 594 | 759 | 1044 | 65 | 873 | 309 | 736 | 1010 | 22 |
| Other | 326 | 174 | 284 | 367 | 67 | 652 | 500 | 431 | 874 | 22 |
| **Total** | **2171** | **1145** | **1895** | **2446** | **69** | **2365** | **1231** | **1819** | **2911** | **22** |
| **Indirect costs** | Time loss [days] | 2.88 | 1.41 | 2.54 | 3.21 | 69 | 3.25 | 0.93 | 2.84 | 3.66 | 22 |
| **Productivity loss** | **4552** | **3575** | **3693** | **5411** | **69** | **6251** | **4613** | **4206** | **8297** | **22** |
| **Follow-up[A]** | **Direct medical costs** | Consultation | 2 | 12 | -1 | 5 | 2 | 0 | 0 | 0 | 0 | 0 |
| Investigations | 22 | 181 | -22 | 65 | 1 | 0 | 0 | 0 | 0 | 0 |
| Medications | 191 | 151 | 155 | 227 | 52 | 256 | 250 | 146 | 367 | 16 |
| Hospitalization | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **215** | **242** | **157** | **273** | **52** | **256** | **250** | **146** | **367** | **16** |
| **Direct non-medical costs** | Transportation | 24 | 193 | -22 | 71 | 2 | 0 | 0 | 0 | 0 | 0 |
| Meals | 20 | 169 | -20 | 61 | 1 | 0 | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 | 0 | 9 | 25 | -2 | 20 | 3 |
| **Total** | **45** | **361** | **-42** | **131** | **2** | **9** | **25** | **-2** | **20** | **3** |
| **Indirect costs** | Time loss [days] | 0.04 | 0.30 | -0.04 | 0.11 | 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0 |
| **Productivity loss** | **37** | **301** | **-36** | **109** | **2** | **0** | **0** | **0** | **0** | **0** |
| **Total direct (financial) cost** | **3978** | **1826** | **3539** | **4417** | **69** | **6898** | **2916** | **5605** | **8191** | **22** |
| **Total economic cost** | **10941** | **6985** | **9263** | **12619** | **69** | **15214** | **8065** | **11638** | **18789** | **22** |

Legend: SD, Standard Deviation; n(c>0), number of caregivers with a cost/time spent valued over zero.
[A] Includes costs incurred at public and private healthcare facilities and providers.

***Table S7: Household costs for an outpatient episode of measles in 2018 BDT.***

|  |  |  |  |
| --- | --- | --- | --- |
| **Timing** | **Type** | **Cost** | **Public healthcare facilities (n=4)** |
| Mean | SD | 95% CI | n(c>0) |
| **Before current visit[A]** | **Direct medical costs** | Consultation | 0 | 0 | 0 | 0 | 0 |
| Investigations | 0 | 0 | 0 | 0 | 0 |
| Medications | 0 | 0 | 0 | 0 | 0 |
| **Total** | **0** | **0** | **0** | **0** | **0** |
| **Direct non-medical costs** | Meals | 0 | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 | 0 |
| **Total** | **0** | **0** | **0** | **0** | **0** |
| **Indirect costs** | Time loss [days] | 0.02 | 0.03 | -0.02 | 0.07 | 4 |
| **Productivity loss** | **24** | **26** | **-17** | **65** | **4** |
| **Current** | **Direct medical costs** | Consultation | 2 | 1 | 0 | 3 | 3 |
| Investigations | 0 | 0 | 0 | 0 | 0 |
| Medications | 0 | 0 | 0 | 0 | 0 |
| **Total** | **2** | **1** | **0** | **3** | **3** |
| **Direct non-medical costs** | Transportation | 5 | 10 | -11 | 21 | 1 |
| Meals | 0 | 0 | 0 | 0 | 0 |
| Other | 0 | 0 | 0 | 0 | 0 |
| **Total** | **5** | **10** | **-11** | **21** | **1** |
| **Indirect costs** | Time loss [days] | 1.10 | 1.64 | -1.51 | 3.71 | 4 |
| **Productivity loss** | **1112** | **1632** | **-1486** | **3709** | **4** |
| **Follow-up[A]** | **Direct medical costs** | Consultation | 25 | 50 | -55 | 105 | 1 |
| Investigations | 0 | 0 | 0 | 0 | 0 |
| Medications | 149 | 184 | -143 | 441 | 2 |
| **Total** | **174** | **202** | **-148** | **495** | **2** |
| **Direct non-medical costs** | Transportation | 15 | 30 | -33 | 63 | 1 |
| Meals | 0 | 0 | 0 | 0 | 0 |
| Other | 15 | 30 | -33 | 63 | 1 |
| **Total** | **30** | **60** | **-65** | **125** | **1** |
| **Indirect costs** | Time loss [days] | 0.01 | 0.02 | -0.02 | 0.04 | 1 |
| **Productivity loss** | **11** | **22** | **-24** | **46** | **1** |
| **Total direct (financial) cost** | **210** | **241** | **-173** | **594** | **4** |
| **Total economic cost** | **1357** | **1784** | **-1482** | **4196** | **4** |

Legend: SD, Standard Deviation; n(c>0), number of caregivers with a cost/time spent valued over zero.
[A] Includes costs incurred at public and private healthcare facilities and providers.