

**S7 Table: Reasons for the parental hesitancy towards vaccine**

|                          | Religious | Knowledge | Information | Vaccine safety & efficacy | Others |
|--------------------------|-----------|-----------|-------------|---------------------------|--------|
| <b>All vaccine</b>       |           |           |             |                           |        |
| All continents (N = 765) | 36.2      | 77.9      | 88.1        | 91.4                      | 38.5   |
| Africa (N = 65)          | 27.7      | 81.5      | 89.2        | 89.2                      | 56.9   |
| Asia (N = 241)           | 22.0      | 80.5      | 87.1        | 90.5                      | 46.1   |
| Europe (N = 148)         | 45.9      | 81.1      | 92.6        | 93.2                      | 33.1   |
| North America (N = 257)  | 43.4      | 72.1      | 85.3        | 91.9                      | 31.9   |
| South America (N = 15)   | 53.3      | 86.7      | 93.3        | 80.0                      | 33.3   |
| Oceania (N = 24)         | 70.8      | 95.8      | 100.0       | 100.0                     | 8.3    |
| Mix continent (N = 15)   | 13.3      | 46.7      | 80.0        | 80.0                      | 60.0   |
| <b>COVID-19 vaccine</b>  |           |           |             |                           |        |
| All continents (N = 256) | 5.9       | 69.9      | 83.6        | 92.6                      | 52.0   |
| Africa (N = 4)           | 100.0     | 100.0     | 100.0       | 100.0                     | 75.0   |
| Asia (N = 118)           | 6.8       | 78.0      | 84.7        | 94.1                      | 58.5   |
| Europe (N = 37)          | 2.7       | 56.8      | 78.4        | 91.9                      | 48.6   |
| North America (N = 79)   | 6.3       | 63.3      | 84.8        | 93.7                      | 43.0   |
| South America (N = 5)    | 20.0      | 80.0      | 80.0        | 80.0                      | 60.0   |
| Oceania (N = 4)          | 0.0       | 75.0      | 100.0       | 100.0                     | 25.0   |
| Mix continent (N = 9)    | 0.0       | 55.6      | 66.7        | 66.7                      | 55.6   |
| <b>HPV vaccine</b>       |           |           |             |                           |        |
| All continents (N = 106) | 42.5      | 86.8      | 90.6        | 85.8                      | 34.9   |
| Asia (N = 29)            | 17.2      | 86.2      | 86.2        | 69.0                      | 44.8   |
| Europe (N = 21)          | 47.2      | 90.5      | 100.0       | 90.5                      | 19.0   |
| North America (N = 47)   | 57.4      | 91.5      | 91.5        | 93.6                      | 27.7   |
| South America (N = 1)    | 100.0     | 100.0     | 100.0       | 100.0                     | 100.0  |
| Africa (N = 8)           | 25.0      | 50.0      | 75.0        | 87.5                      | 75.0   |
| <b>Influenza vaccine</b> |           |           |             |                           |        |
| All continents (N = 46)  | 52.2      | 89.1      | 95.7        | 95.7                      | 26.1   |
| Asia (N = 18)            | 33.3      | 88.9      | 94.4        | 94.4                      | 38.9   |
| Europe (N = 11)          | 63.6      | 100.0     | 100.0       | 90.9                      | 18.2   |
| North America (N = 14)   | 64.3      | 78.6      | 92.9        | 100.0                     | 21.4   |
| Oceania (N = 3)          | 66.7      | 100.0     | 100.0       | 100.0                     | 0.0    |
| <b>MMR vaccine</b>       |           |           |             |                           |        |
| All continents (N = 50)  | 48.0      | 70.0      | 78.0        | 90.0                      | 34.0   |
| Asia (N = 3)             | 66.7      | 100.0     | 100.0       | 100.0                     | 0.0    |
| North America (N = 26)   | 23.1      | 42.3      | 65.4        | 84.6                      | 50.0   |
| Europe (N = 15)          | 93.3      | 100.0     | 100.0       | 100.0                     | 6.7    |
| Africa (N = 6)           | 33.3      | 100.0     | 66.7        | 83.3                      | 50.0   |
| <b>Mix vaccine*</b>      |           |           |             |                           |        |
| All continents (N = 161) | 36.0      | 72.0      | 88.2        | 88.8                      | 41.9   |
| Africa (N = 26)          | 7.7       | 76.9      | 96.2        | 88.5                      | 65.4   |
| Asia (N = 40)            | 27.5      | 70.0      | 82.5        | 87.5                      | 35.0   |
| Europe (N = 37)          | 48.6      | 83.8      | 97.3        | 94.6                      | 40.5   |
| North America (N = 45)   | 46.7      | 60.0      | 77.8        | 84.4                      | 38.6   |
| South America (N = 5)    | 60.0      | 100.0     | 100.0       | 80.0                      | 0.0    |
| Oceania (N = 4)          | 50.0      | 100.0     | 100.0       | 100.0                     | 25.0   |
| Mix continent (N = 4)    | 25.0      | 25.0      | 100.0       | 100.0                     | 75.0   |

|                              |       |       |       |       |       |
|------------------------------|-------|-------|-------|-------|-------|
| <b>Others vaccine**</b>      |       |       |       |       |       |
| All continents (N = 43)      | 53.5  | 83.7  | 88.4  | 93.0  | 37.2  |
| Asia (N = 12)                | 50.0  | 100.0 | 100.0 | 100.0 | 25.0  |
| Europe (N = 9)               | 41.7  | 83.3  | 91.7  | 100.0 | 41.7  |
| North America (N = 6)        | 83.3  | 83.3  | 83.3  | 83.3  | 16.7  |
| Africa (N =13)               | 61.5  | 84.6  | 84.6  | 92.3  | 38.5  |
| Mix (N = 1)                  | 0.0   | 0.0   | 100.0 | 100.0 | 100.0 |
| Oceania (N = 1)              | 100.0 | 100.0 | 100.0 | 100.0 | 0.0   |
| South America (N = 1)        | 0.0   | 100.0 | 100.0 | 100.0 | 0.0   |
| <b>Not stated vaccine***</b> |       |       |       |       |       |
| All continents (N = 103)     | 85.4  | 94.2  | 98.1  | 96.1  | 11.7  |
| Asia (N = 21)                | 76.2  | 95.2  | 100.0 | 95.2  | 14.3  |
| Europe (N = 18)              | 77.8  | 83.3  | 94.4  | 94.4  | 27.8  |
| North America (N = 41)       | 95.1  | 95.1  | 97.6  | 97.6  | 2.4   |
| Africa (N = 8)               | 50.0  | 100.0 | 100.0 | 87.5  | 37.5  |
| Oceania (N = 12)             | 100.0 | 100.0 | 100.0 | 100.0 | 0.0   |
| South America (N = 2)        | 100.0 | 100.0 | 100.0 | 100.0 | 0.0   |
| Mix (N = 1)                  | 100.0 | 100.0 | 100.0 | 100.0 | 0.0   |

All the number is presented in percentage.

\* Mix vaccine: Children received more than 1 type of vaccine during the survey for example Influenza & COVID-10 or child immunization program.

\*\* Other vaccine for example Hepatitis A & B, Malaria, Polio, Diphtheria, pneumococcal and others

\*\*\* Not stated vaccine – respondents not stated type of vaccine they received during the survey.