|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Key performance indicator** | **Indicator Type  (Matrix Cells  in Figure 3)** | **Possible Sources** | **Remark** | **Implemented in (examples)** |
| Number of app downloads | 3, 4 | Data from App stores (Google, Apple) |  | CH [[1](#_ENREF_1)] DE [[2](#_ENREF_2)], NL [[3](#_ENREF_3)] |
| Number of active apps | 3, 4 | DPT backend | Counted by apps randomly sending “empty requests” to backend system (on average once every 5 days). This measure is a proxy for the number of active app users. | CH [[1](#_ENREF_1)] |
| Number of entered upload authorization codes | 4 | DPT backend |  | CH [[1](#_ENREF_1)], DE [[2](#_ENREF_2)], NL [[3](#_ENREF_3)] |
| Time from symptom onset (as reported by participant) to upload of tracing keys | 4 | DPT backend | Date of positive SARS-CoV-2 test if person is asymptomatic | CH [[1](#_ENREF_1)] |
| Number of hotline calls after exposure notification | 3,4 |  | In Switzerland, hotlines were partially overwhelmed early during the second pandemic wave. Therefore, monitoring calls may also reveal technical and resource bottlenecks. | CH [[1](#_ENREF_1)], DE [[2](#_ENREF_2)] |
| Number of notifications shown to users | 5 (or maybe 3,4) | Statistics provided by apps |  | IT [6] |
| Exposure notification as reason for seeking SARS-CoV-2 testing | 6 | Statistics on tests (e.g. as collected by testing laboratories), population surveys |  | CH [[4](#_ENREF_4)], NL [[3](#_ENREF_3)] |
| Positive SARS-CoV-2 tests after exposure notification | 6 | Statistics on tests (e.g. as collected by testing laboratories), population surveys |  | CH [[4](#_ENREF_4)], NL [[3](#_ENREF_3)] |
| Persons with EN who (self-)quarantine | 6 | Post-EN surveys, calls to hotline, web-based risk-assessment tools |  | CH [[4](#_ENREF_4),[5](#_ENREF_5)] |

**Supplementary Table 1: Examples of Key Performance Indicators**

**Example measures of comparative effectiveness:**

derived from indicators of public health relevance

* Test positivity among persons with an EN, compared to exposed persons without EN [[4](#_ENREF_4),[3](#_ENREF_3)]
* Ratio of number EN-triggered quarantine recommendations over number of MCT-mandated quarantines [[5](#_ENREF_5)]

**Further information on recommended key performance indicator and effectiveness measurements can also be found in a joint World Health Organization and European Center for Disease Control document [7].**

**Abbreviations**: DPT, Digital Proximity Tracing

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