Ergebnisse aus IMMUNEBRIDGE für Modellierungskonsortien

Stand 31.07.22

Daten aus folgenden Bestandskohorten konnten eingeschlossen werden:

Tabelle Zum 15.07. eingeschlossene Teilnehmer in teilnehmenden Bestandskohorten

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Erhebung IB finanziert | Art der Kohorte | Regionen | N aktuell | Vorhandene Untersuchungen | Vorhandene Datenitems | Einschränkungen |
| MuSPAD | Nein | Populationsbasiert von 2020, Einwohnermeldeämter | Magdeburg | 1043 | N-Ak, S-AK ,  S-IGRA | MDS vorhanden, Vorbefunde aus 2 Erhebungen | >18 |
| MuSPAD | Nein | Populationsbasiert von 2020, Einwohnermeldeämter | Aachen | 870 | N-Ak, S-AK,  S-IGRA | MDS vorhanden, Vorbefunde aus 2 Erhebungen | >18 |
| MuSPAD | Ja, teilweise | Populationsbasiert von 2020, Einwohnermeldeämter | Hannover | 1111 | N-Ak, S-AK | MDS vorhanden, Vorbefunde aus 1 Erhebung | >18 |
| NAKO | Nein | Populationsbasiert von 2016 | 18 Standorte Deutschlandweit | 2557 | N-Ak, S-AK | Alter, Sex | >18 |
| Heinsberg | Nein |  | Heinsberg | 579 | N-Ak, S-AK | Alter, Sex, Vorbefunde aus 4 Erhebungen |  |
| STAAB | Nein | Populationsbasiert | Würzburg | 639 | N-Ak, S-AK | MDS vorhanden, Vorbefunde aus 2 Erhebungen | >18 |
| Dresden | Ja | Schulbasiert | Dresden | 77 | N-Ak, S-Ak | MDS vorhanden | 12-17 |
| Total |  |  |  | 6886 |  |  |  |

**Charakteristika der Teilnehmer**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **MuSPAD** | **NAKO** | **Heinsberg** | **STAAB** | **Dresden** | **Total** |
| **Total** |  | **3025** | **2619** | **1434** | **660** | **76** | **6886** |
| Sex | Female | 1820 (60,2%) | 1353 (51,7%) | 764 (53,5%) | 258 (53,2%) | 59 (67,8%) | 3764 (56,1%) |
|  | Male | 1205 (39,8%) | 1263 (48,3%) | 665 (64,5%) | 227 (46,8%) | 28 (32,2%) | 2943 (43,9%) |
| Age, mean |  |  |  |  |  |  |  |
|  | 0-4 |  |  | 1 (0,2%) |  |  | 1 (0,02%) |
|  | 5-11 |  |  | 14 (2,4%) |  |  | 14(0,2%) |
|  | 12-17 |  |  | 15 (2,6%) |  | 76 (100%) | 91 (1,4%) |
|  | 18 - 29 | 123 (4,1%) | 83 (3,2%) | 58 (10%) |  |  | 264 (3,9%) |
|  | 30-34 | 158 (5,2%) | 140 (5,4%) | 28 (4,8%) |  |  | 324 (4,8%) |
|  | 35-39 | 143 (4,7%) | 124 (4,7%) | 34 (5,9%) | 7 (1,4%) |  | 304 (4,5%) |
|  | 40-49 | 349 (11,5%) | 335 (12,8%) | 55 (9,2%) | 63 (13%) |  | 789 (11,8%) |
|  | 50-59 | 765 (25,3%) | 741 (28,3%) | 131 (22,7%) | 138 (28,5%) |  | 1749 (26,1%) |
|  | 60-64 | 382 (12,6%) | 393 (15%) | 68 (11,8%) | 80 (16,5%) |  | 914 (13,6%) |
|  | 65-79 | 945 (31,2%) | 803 (30,7%) | 140 (24,6%) | 188 (38,8%) |  | 2046 (30,5) |
|  | >80 | 160 (5,3%) |  | 34 (5,8%) | 9 (1,9%) |  | 203(3,1%) |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Education (of parents for <18) | Higher education certificate | 1283 (59,4%) |  |  | 234 (48,3%) | *62 (74,2%)* | 1682 (51%) |
|  | 10th grade | 512 (23,7%) |  |  | 150 (30,9%) | *13 (15,7%)* | 744 (22,6% |
|  | 9th grade | 165 (7,6%) |  |  | 92 (19%) |  | 400 (12,1%) |
|  | No certificate | 5 (0,2%) |  |  | 4 (0,8%) |  | 232 (7%) |
|  | Other | 194 (9%) |  |  | 5 (1%) | *6 (7,2%)* | 236 (7,2%) |
|  |  |  |  |  |  |  |  |
| Comorbidities |  |  |  |  |  |  |  |
|  | Hypertension | 769 (35,4%) |  |  | 252 (52%) |  | 1266 (38,1%) |
|  | Diabetes | 138 (6,3%) |  |  | 43 (8,9%) |  | 223 (6,7%) |
|  | Cardiovascular | 287 (13,2%) |  |  | 125 (26%) |  | 370 (13%) |
|  | Lung | 208 (9,6%) |  |  | 70 (14,4%) |  | 348 (10.5%) |
|  | Immunodeficiency | 140 (6,4%) |  |  | 14 (2,9%) |  | 189 (5,7%) |
|  | Cancer with Chemotherapy | 64 (2,9%) |  |  | 24 (5%) |  | 114 (3,4%) |
|  |  |  |  |  |  |  |  |
| Flu vaccination |  | 1305, (60%) |  |  | 258 (56,3%) |  | 1968 (59%) |
| Smallpox vaccination |  | 792, 36,4% |  |  |  |  |  |

**Ergebnisse Antikörperuntersuchungen und IGRA**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **MuSPAD** |  |  | **NAKO** |  | **Heinsberg** |  | **STAAB** |  | **Total (gewichtet nach Altersgruppen, stratifiziert nach Kohorten, *svyset iweights(weights), strata (cohort)*** | | | | | |
|  |  | **S-Ak (%)** | **N-Ak(%)** | **IGRA-S (%)** | **S-Ak (%)** | **N-Ak(%)** | **S-Ak (%)** | **N-Ak(%)** | **S-Ak (%)** | **N-Ak(%)** | **S-Ak (%)** | **95%-CI** | **N-Ak(%)** | **95%-CI** | **IGRA-S (%)** | **95%-CI** |
| Total |  | 2773, 99,4% | 1004, 36% | 677, 65,6% | 2518, 98,6% | 1094, 42,8% | 565, 97,6% | 334, 57,6% | 633, 99% | 268, 41,9% |  |  |  |  |  |  |
| Total (altersgewichtet) |  | 99,4% | 37,4% | 65,2% |  | 47,1% |  | 59,3% |  | 44,6% | 99,1% | 98,7-99,3 | 44,9% | 43,4-46,4 | 65,2%, | 61-68 |
| Sex |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Female | 1667, 99,3% | 615, 36,5% | 450, 67,8% | 1298, 98,7% | 550, 41,7% | 315, 97,8% | 178 (55,3%) |  | 99, 40% | 99% | 98,5-99,4 | 44,2% | 42,2-46,3 | 69,9% | 65-74% |
|  | Male | 1104,  99,5% | 388, 34,9% | 226, 61,4% | 1217, 98,5% | 544, 44% | 250, 96,9% | 156 (60,5%) |  | 98, 45% | 99% | 98,5-99,4 | 45,8% | 43,5-48,2 | 56,4% | 49-63 |
| Age |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 0-4 |  |  |  |  |  | 1 | 1 |  |  |  |  |  |  |  |  |
|  | 5-11 |  |  |  |  |  | 10 (71%) | 8, 57% |  |  |  |  |  |  |  |  |
|  | 12-17 |  |  |  |  |  | 16 (100%) | 7, 43% |  |  | 97,8% | 92-99 | 62,6% | 52-72 |  |  |
|  | 18 - 29 | 116, 100% | 53, 45% | 37, 74% | 82, 98,8% | 47, 56,6% | 57 (98,3%) | 40, 69% |  |  | 99,6% | 97-100 | 53,8% | 48-60 | 74% | 60-84 |
|  | 30-34 | 151, 99,3% | 70, 46% | 57, 76% | 137, 99,3% | 66, 47,8% | 27,  96,4% | 14, 50% |  |  | 99,4% | 98-100 | 46,9% | 42-53 | 75% | 65-83 |
|  | 35-39 | 137, 100% | 67, 49% | 55, 76% | 117, 97,5% | 75, 62,5% | 34,  100% | 26, 77% | 7, 100% | 5, 71% | 99% | 97-100 | 57,3% | 52-63 | 77% | 66-85 |
|  | 40-49 | 319,  99% | 151, 47% | 101, 77% | 317, 97,8% | 189, 58% | 54,  98,2% | 36, 65% | 59, 98,3% | 36, 60% | 98,5% | 97-99 | 54,3% | 51-58 | 77% | 69-84 |
|  | 50-59 | 688, 99,1% | 256, 37% | 149, 76% | 710, 98,6% | 317, 44% | 129, 98,5% | 88, 67% | 132, 99,3% | 65, 48,9% | 98,8% | 98-99 | 42,8% | 40-45 | 76% | 69-82 |
|  | 60-64 | 350, 99,7% | 123, 35% | 72, 66% | 380, 98,5% | 162, 44% | 65,  95,6% | 38, 56% | 76, 98,7% | 25, 32,5% | 99,1% | 98-100 | 38,8% | 36-42 | 68% | 57-75 |
|  | 65-79 | 857, 99,3% | 249, 28,9% | 160, 54% | 775, 98,5% | 238, 30,4% | 137, 97,9% | 60, 43% | 177, 99,4% | 63, 35,4% | 99,2% | 99-100 | 31,3% | 29-33 | 54% | 49-60 |
|  | >80 | 155, 99,4% | 35, 22,4% | 46, 45% |  |  | 34,  100% | 15, 44 % | 9, 100% | 3, 33% | 99,5% | 99-100 | 26,6% | 20-33 | 44% | 35-54 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Comorbidities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Hypertension | 1364, 99,4% | 34,2% | 200, 61,7% |  |  |  |  | 98,8%, 239 | 89, 36,8% | 99,2% | 98,3-99,7 | 32,5% | 29,4-35,7 | 55,7% | 60,8-68,4 |
|  | Diabetes | 131, 99,24% | 36, 27,1% | 34, 48,6% |  |  |  |  | 38, 97,4% | 11, 28,2% | 98,3% | 92-99,7 | 26,7% | 19,9-34,8 | 44,9% | 32-58,3 |
|  | Cardiovascular | 277, 99,6% | 92, 36,4% | 73, 59,8% |  |  |  |  | 118, 100% | 45, 38,1% | 99,8 | 98,9-99,9 | 30,2% | 24,5-36,7 | 57% | 46-66,8 |
|  | Cancer | 62  100% | 20, 32,3% | 11, 55% |  |  |  |  | 23, 95,8% | 8, 33,3% | 99,4% | 98,9-99,6 | 29,2% | 20-40% | 45,5% | 24-68,6 |
|  | Lung Disease | 197, 99,5% | 62, 31,3% | 48, 51,6% |  |  |  |  | 70, 100% | 35, 50% | 99,5% | 97,9-99,9 | 34% | 28-41 | 52% | 40-63,5 |
|  | Immunesuppresion | 136, 99,3% | 48, 35% | 28, 62,2% |  |  |  |  | 13, 100% | 6, 46,2% | 99,2% | 97-99,8 | 31,8 | 24,7-39 | 54,9% | 37-71 |

**Impfungen und Infektionen**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **MuSPAD** |  |  |  |  |  |  |  |  |  | **STAAB** |  |  |  |  |  |  |  |  |  |  |
|  |  | **Vaccinated** | **0** | **1x** | **2x** | **3x** | **4x** | **Infected** | **2020** | **2021** | **2022** | **0** | **1x** | **2x** | **3x** | **4x** | **Infected** | **2020** | **2021** | **2022** |  |  |
| Total |  | 97,85% | 1,9% | 7,8% | 4,5% | 75% | 17,9% | 24,6% | 1,5% | 2,5% | 20,5% | 2,8% | 1,4% | 4,3% | 75,6% | 15,8% |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sex |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Female | 98% |  |  |  |  |  | 25,4% | 1,4% | 2,5% | 21,4% |  |  |  |  |  |  |  |  |  |  |  |
|  | Male | 97,6% |  |  |  |  |  | 23,4% | 1,5% | 2,5% | 19,2% |  |  |  |  |  |  |  |  |  |  |  |
| Age |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 0-4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 5-11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 12-17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 18 - 29 | 100% |  |  |  |  |  | 36,6% | 2% | 2% | 33% |  |  |  |  |  |  |  |  |  |  |  |
|  | 30-34 | 97,4% |  |  |  |  |  | 36% | 3,4% | 2,5% | 30% |  |  |  |  |  |  |  |  |  |  |  |
|  | 35-39 | 97,1% |  |  |  |  |  | 37% | 0,9% | 2,8% | 33% |  |  |  |  |  |  |  |  |  |  |  |
|  | 40-49 | 95,3% |  |  |  |  |  | 39,7% | 2,3% | 2,7% | 34% |  |  |  |  |  |  |  |  |  |  |  |
|  | 50-59 | 96,9% |  |  |  |  |  | 26,9% | 1,8% | 3% | 22% |  |  |  |  |  |  |  |  |  |  |  |
|  | 60-64 | 97,7% |  |  |  |  |  | 22,7% | 1,2% | 4% | 17,6% |  |  |  |  |  |  |  |  |  |  |  |
|  | 65-79 | 99,4% |  |  |  |  |  | 14% | 0,8% | 1,2% | 12% |  |  |  |  |  |  |  |  |  |  |  |
|  | >80 | 99% |  |  |  |  |  | 10,4% | 1% | 4% | 6% |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Comorbidities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Hypertension | 98,7% |  |  |  |  |  | 22,3% | 1,3% | 2,5% | 18,2% |  |  |  |  |  |  |  |  |  |  |  |
|  | Diabetes | 98,5% |  |  |  |  |  | 16,7% | 0% | 2,9% | 13,8% |  |  |  |  |  |  |  |  |  |  |  |
|  | Cardiovascular | 98,6% |  |  |  |  |  | 20,9% | 3,1% | 2,8% | 14,3% |  |  |  |  |  |  |  |  |  |  |  |
|  | Cancer | 100% |  |  |  |  |  | 21,9% | 4,7% | 3,1% | 12,5% |  |  |  |  |  |  |  |  |  |  |  |
|  | Lung Disease | 98,6% |  |  |  |  |  | 21,2% | 1,5% | 3,4% | 15,9% |  |  |  |  |  |  |  |  |  |  |  |
|  | Immunesuppresion | 99,3% |  |  |  |  |  | 20,7% | 0,7% | 2,9% | 17,2% |  |  |  |  |  |  |  |  |  |  |  |

**Kombinierter Endpunkt**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Vaccinated** | **Infected** | **Ak-S** | **Ak-N** | **IGRA** |  |  |
|  | **+** | **+** | **+** | **+** | **+** |  |  |
|  | **+** | **+** | **+** | **-** | **-** |  |  |
|  | **+** | **-** | **+** | **-** | **+** |  |  |
|  | **+** | **-** | **+** | **-** | **-** |  |  |
|  | **+** | **-** | **-** | **-** | **-** |  |  |
|  | **-** | **+** | **-** | **+** | **+** |  |  |
|  |  | **+** | **-** | **+** | **-** |  |  |
|  |  | **+** | **-** | **-** | **-** |  |  |

**IGRAs:**

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**Über die Zeit**

**Nucleocapsid- Ak**

**Spike-AK**

**Infektionen**

**Impfungen**