Ergebnisse aus IMMUNEBRIDGE für Modellierungskonsortien

Stand 31.07.22

Daten aus folgenden Bestandskohorten konnten eingeschlossen werden:

Tabelle 1 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

		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%											

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

IGRAs:

```
Survey: Logistic regression


Number of strata   =          2                 Number of obs     =         933
Number of PSUs     =        933                 Population size    = 956.800008
                                                Design df         =         931
                                                F( 21,    911)    =        4.30
                                                Prob > F          =      0.0000


                         |             Linearized
              igra_qual | Odds Ratio  Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------------------+----------------------------------------------------------------
                    sex  |
                 female |          1  (base)
                   male |   .5900633   .1132851    -2.75   0.006     .4048232     .860066
                        |
              age_group |
                  18-29 |          1  (base)
                  30-34 |   1.143775   .5151073     0.30   0.766     .4726032    2.768117
                  35-39 |   1.230601   .5906984     0.43   0.666     .4797351    3.156696
                  40-49 |   1.695841   .7558881     1.18   0.236     .7071063    4.067106
                  50-59 |   1.320489   .5302689     0.69   0.489     .6004442    2.904001
                  60-64 |   .9269661   .4105418    -0.17   0.864     .3886749    2.210758
                  65-79 |   .4970342   .2001179    -1.74   0.083     .2255412    1.095334
                    >80 |   .3221606   .1498824    -2.43   0.015     .1292834    .8027903
                        |
            n_year_pos1 |
           no infection |          1  (base)
                   2020 |          1  (empty)
                   2021 |   1.918242    1.68512     0.74   0.459     .3421166    10.75555
                   2022 |   4.912321   1.414738     5.53   0.000     2.791409    8.644701
           year unclear |          1  (empty)
                        |
             vaccinated |
         no vaccination |          1  (base)
      first vaccination |   .6648114   .7907554    -0.34   0.732     .0644058     6.86234
     second vaccination |   5.920492    3.35009     3.14   0.002      1.95021    17.97357
      third vaccination |   15.20719   7.960612     5.20   0.000     5.443578    42.48282
     fourth vaccination |   15.03571    9.08423     4.49   0.000     4.593863    49.21186
                        |
              education |
                 Abitur |          1  (base)
             Realschule |   .8043234   .1927358    -0.91   0.364     .5025697    1.287257
            Hauptschule |   .8476226   .2732482    -0.51   0.608     .4502393    1.595738
      Kein Schulabschluß |          1  (empty)
                Anderes |   .7912043   .2864419    -0.65   0.518     .3887986    1.610099
                        |
           hypertension |
         no hypertension |          1  (base)
            hypertenstion |   1.050832   .2290703     0.23   0.820     .6850763    1.611862
                        |
         cardiovascular |
no cardiovascular disease |          1  (base)
   cardiovascular disease |   1.303535   .3493774     0.99   0.323     .7703426    2.205775
                        |
               diabetes |
            no diabetes |          1  (base)
               diabetes |   .7037337   .2127783    -1.16   0.246      .388783    1.273824
                        |
                   lung |
 no chronic lung disease |          1  (base)
    chronic lung disease |   .5572165   .1673371    -1.95   0.052     .3090778     1.00457
                        |
                  _cons |   .1963324   .1233873    -2.59   0.010     .0571938    .6739618
```

Über die Zeit

Nucleocapsid- Ak

Spike-AK

Infektionen

Impfungen