

**Immunization of Children under 2 Years Old in the Coastal Hadhramaut Governorate,
Yemen, during Public Health Emergencies: A Trend Analysis of 2013–2020**
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Supplementary Tables:

Table S1: BCG vaccine coverage in Coastal Hadhramout (2013-2020)

BCG								
Districts	2013	2014	2015	2016	2017	2018	2019	2020
Al-Mukalla	99.51	98.46	87.67	100.00	100.00	100.00	100.00	97.59
Al-Mukalla rural	59.62	70.99	64.66	74.39	59.38	56.63	44.95	37.10
Al-Shahr	82.23	79.31	67.30	79.11	85.97	91.49	96.70	84.37
Ghail Bawazeer	89.67	87.21	64.24	86.43	78.88	92.46	100.00	88.08
Al-Dees	76.79	76.04	76.72	58.93	99.40	72.67	84.42	83.09
Al-Ridh and Gosaiar	78.01	81.83	65.12	84.38	100.00	100.00	98.81	84.79
Ghail binYumin	75.00	86.78	76.57	82.06	96.84	95.88	98.44	100.00
Doan	76.44	71.58	73.80	68.05	63.75	70.98	67.08	66.78
Al-Dulaia	60.00	51.36	34.65	58.92	70.47	73.68	78.23	46.84
Hajer	69.31	66.67	47.18	51.45	65.52	86.66	67.60	71.65
Broome- Mayfa'a	69.59	60.41	74.03	100.00	100.00	94.62	93.41	76.47
Yeabeth	61.02	74.49	59.34	71.10	84.72	68.57	65.32	67.79
Coastal Hadhramout (Total)	84.28	83.66	72.59	89.03	93.01	97.37	99.05	84.69

Table S2: IPV vaccine coverage in Coastal Hadhramout (2013-2020)

IPV					
Districts	2016	2017	2018	2019	2020
Al-Mukalla	100.00	100.00	100.00	100.00	88.74
Al-Mukalla rural	83.33	89.29	72.59	84.56	70.43
Al-Shahr	81.82	83.16	100.00	88.24	77.60
Ghail Bawazeer	94.97	80.92	83.68	100.00	89.52
Al-Dees	42.02	38.81	60.11	54.35	34.66
Al-Ridh and Gosaia	89.76	100.00	100.00	96.11	81.12
Ghai IbinYumin	85.39	93.20	96.77	95.70	97.08
Doan	44.60	61.13	70.04	70.27	60.46
Al-Dulaia	29.39	25.15	34.06	25.40	21.09
Hajer	36.35	52.81	83.79	94.17	98.59
Broome- Mayfa'a	98.77	100.00	96.15	97.76	79.41
Yeabeth	38.23	58.80	59.76	42.12	21.85
Coastal Hadhramout (Total)	83.49	85.61	93.16	92.74	78.65

Table S3: MR 1 vaccine coverage in Coastal Hadhramout (2013-2020)

MR1								
Districts	2013	2014	2015	2016	2017	2018	2019	2020
Al-Mukalla	82.83	79.92	88.19	82.95	80.04	93.19	100.00	95.81
Al-Mukalla rural	89.26	88.46	99.23	93.48	80.95	81.21	86.89	76.75
Al-Shahr	73.60	70.61	81.58	64.17	74.12	87.62	88.91	73.47
Ghail Bawazeer	81.04	81.92	73.79	58.86	70.49	77.56	91.90	84.50

Al-Dees	67.69	61.40	82.97	65.36	65.00	77.56	86.35	74.52
Al-Ridh and Gosaiar	72.69	81.61	79.99	77.42	87.58	100.00	82.85	77.33
Ghail binYumin	81.82	68.36	79.12	69.61	82.57	91.94	93.59	98.37
Doan	84.29	84.89	77.22	78.96	80.89	81.21	78.78	79.49
Al-Dulaia	73.18	51.06	59.50	59.06	55.70	74.27	75.67	68.18
Hajer	69.05	59.13	50.34	53.24	58.85	56.82	75.42	72.19
Broome- Mayfa'a	74.27	65.69	82.58	88.12	100.00	85.38	86.57	79.78
Yeabeth	46.77	67.93	69.05	74.36	60.19	99.05	82.66	93.92
Coastal Hadhramout (Total)	78.16	75.80	80.50	73.96	77.53	87.15	91.05	84.48

Table S4: MR 2 vaccine coverage in Coastal Hadhramout (2013-2020)

MR2								
Districts	2013	2014	2015	2016	2017	2018	2019	2020
Al-Mukalla	73.22	68.68	79.38	73.41	66.17	75.35	81.42	77.72
Al-Mukalla rural	53.85	63.78	67.90	70.45	73.21	72.07	68.17	58.60
Al-Shahr	70.87	62.17	77.42	63.29	62.97	69.76	70.58	65.25
Ghail Bawazeer	69.42	61.44	67.48	56.13	54.72	61.49	67.56	73.57
Al-Dees	56.28	51.42	46.94	51.31	49.05	66.11	65.34	51.21
Al-Ridh and Gosaiar	58.76	67.80	61.05	55.24	61.37	74.63	67.68	62.76
Ghail binYumin	56.71	57.02	63.53	71.67	59.96	65.86	76.37	77.15
Doan	36.63	37.83	38.97	46.94	45.83	55.91	51.24	59.10
Al-Dulaia	22.42	11.21	10.96	10.09	13.89	27.05	20.97	27.65
Hajer	18.12	27.65	18.47	28.86	26.88	44.07	34.06	48.81
Broome- Mayfa'a	29.97	31.23	35.93	22.53	33.76	41.92	42.91	44.49
Yeabeth	22.58	16.41	21.23	50.82	24.54	41.43	33.11	39.19
Coastal Hadhramout (Total)	59.35	56.89	62.30	59.03	56.20	65.67	67.23	66.14

Table S5: Rota 1 vaccine coverage in Coastal Hadhramout (2013-2020)

Rota1								
Districts	2013	2014	2015	2016	2017	2018	2019	2020
Al-Mukalla	92.74	90.94	94.76	89.58	100.00	100.00	100.00	100.00
Al-Mukalla rural	65.54	75.00	85.49	92.88	83.63	76.19	93.85	81.32
Al-Shahr	85.25	82.04	83.74	63.12	90.54	96.17	100.00	92.45
Ghail Bawazeer	88.97	86.15	79.02	69.50	100.00	94.13	100.00	95.16
Al-Dees	70.64	72.02	74.88	61.07	98.81	100.33	100.00	88.77
Al-Ridh and Gosaia	80.59	88.44	78.00	83.74	97.81	100.00	100.00	93.33
Ghail binYumin	72.84	84.53	80.59	73.24	100.00	100.00	100.00	100.00
Doan	74.52	84.65	87.35	81.65	91.73	88.12	90.78	85.99
Al-Dulaia	33.48	40.30	47.22	57.46	94.01	90.94	100.00	95.71
Hajer	49.60	52.65	43.36	53.69	64.79	94.57	95.10	96.75
Broome- Mayfa'a	60.09	54.84	67.50	81.02	91.67	95.51	96.02	84.68
Yeabeth	56.99	72.98	81.07	87.18	85.19	100.00	100.00	100.00
Coastal Hadhramout (Total)	80.19	81.93	82.32	77.83	95.85	99.08	108.52	98.92

Table S6: Rota 2 vaccine coverage in Coastal Hadhramout (2013-2020)

Rota2								
Districts	2013	2014	2015	2016	2017	2018	2019	2020
Al-Mukalla	90.69	86.19	91.78	88.55	100.00	94.35	100.00	100.00
Al-Mukalla rural	66.99	68.91	84.10	85.76	82.44	77.09	95.90	79.57
Al-Shahr	82.89	83.04	83.15	61.11	87.24	94.59	97.28	85.09
GhailBawazeer	83.10	84.10	74.33	66.72	82.70	86.54	100.00	92.52
Al-Dees	67.82	61.53	68.87	53.21	80.71	90.56	94.57	77.17
Al-Ridh and Gosaia	80.16	80.65	76.89	79.58	100.00	100.00	97.26	88.31
GhailbinYumin	69.59	72.37	72.75	69.41	97.61	100.00	100.00	100.00
Doan	71.82	79.26	81.12	71.10	82.14	87.35	86.58	85.70
Al-Dulaia	25.30	28.94	33.33	45.32	89.18	82.02	100.00	93.06

Hajer	35.05	41.67	33.11	52.80	57.40	82.91	89.27	86.80
Broome- Mayfa'a	51.90	51.32	64.07	68.06	86.44	75.00	90.80	67.52
Yeabeth	46.77	57.07	70.33	75.99	97.69	100.00	94.82	100.00
Coastal Hadhramout (Total)	76.80	76.62	78.21	73.81	91.33	92.51	100.00	93.64

Table S7: Pentavalent 1 vaccine coverage in Coastal Hadhramout (2013-2020)

Pentavalent 1								
Districts	2013	2014	2015	2016	2017	2018	2019	2020
Al-Mukalla	97.86	95.02	100.00	94.58	100.00	100.00	100.00	100.00
Al-Mukalla rural	87.66	96.47	94.29	100.00	86.16	80.05	96.04	81.85
Al-Shahr	86.54	83.26	85.31	75.25	90.86	93.25	99.68	93.34
Ghail Bawazeer	94.66	88.91	82.69	76.62	84.96	94.63	100.00	95.07
Al-Dees	83.21	83.42	83.58	88.33	100.00	100.00	99.28	88.77
Al-Ridh and Gosaia	91.29	93.28	87.84	85.16	100.00	100.00	100.00	94.55
Ghail binYumin	91.34	95.28	80.69	85.29	100.00	100.00	100.00	100.00
Doan	94.90	96.52	100.00	99.16	94.82	93.20	95.51	90.01
Al-Dulaia	81.97	87.12	93.13	85.53	97.95	100.00	100.00	96.59
Hajer	92.72	94.71	73.65	76.40	78.54	100.00	97.40	96.86
Broome- Mayfa'a	77.49	75.37	92.85	100.00	100.00	100.00	97.39	87.99
Yeabeth	87.37	97.98	94.37	94.87	84.95	91.67	100.00	100.00
Coastal Hadhramout (Total)	100.00	91.42	91.66	89.34	97.47	100.00	100.00	100.00

Table S8 : Pentavalent 2 vaccine coverage in Coastal Hadhramout (2013-2020)

Pentavalent 2								
Districts	2013	2014	2015	2016	2017	2018	2019	2020
Al-Mukalla	93.69	91.79	98.00	90.48	100.00	100.00	100.00	100.00
Al-Mukalla rural	87.82	90.87	91.36	93.64	88.10	79.15	98.09	76.21
Al-Shahr	83.92	84.73	85.68	72.05	89.80	90.15	95.58	86.51
Ghail Bawazeer	89.14	88.50	79.40	75.00	84.22	86.98	100.00	92.70
Al-Dees	79.74	76.81	83.09	82.50	94.76	98.56	99.64	77.17
Al-Ridh and Gosaia	86.83	94.52	85.03	88.10	100.00	100.00	96.95	86.14
GhailbinYumin	89.72	89.02	86.67	83.82	100.00	100.00	100.00	100.00
Doan	92.81	96.40	94.18	91.13	91.49	91.43	90.96	88.42
Al-Dulaia	81.82	86.52	93.27	84.80	91.37	100.00	100.00	91.92
Hajer	76.19	83.47	62.27	70.92	69.69	89.03	98.96	92.75
Broome- Mayfa'a	81.73	79.91	90.82	100.00	100.00	87.05	89.55	74.75
Yeabeth	85.48	91.92	89.26	90.21	77.55	83.81	94.82	100.00
Coastal Hadhramout (Total)	88.51	89.46	89.22	86.05	94.35	99.51	100.00	94.20

Table S9: Pentavalent 3 vaccine coverage in Coastal Hadhramout (2013-2020)

Pentavalent 3								
Districts	2013	2014	2015	2016	2017	2018	2019	2020
Al-Mukalla	91.45	90.03	94.21	93.00	99.02	100.00	100.00	100.00
Al-Mukalla rural	90.54	88.62	91.36	88.03	83.33	80.18	90.03	81.59
Al-Shahr	81.97	84.55	85.45	80.13	81.54	89.38	94.42	79.21
Ghail Bawazeer	89.85	89.67	81.34	81.03	80.77	84.47	100.00	91.26
Al-Dees	81.79	74.61	82.60	80.36	96.19	93.78	89.37	71.01
Al-Ridh and Gosaia	89.52	93.33	87.55	91.04	100.00	100.00	96.46	88.39
Ghail binYumin	90.48	83.24	87.45	84.71	96.65	97.22	100.00	100.00
Doan	90.89	95.02	93.11	94.48	90.65	93.32	91.49	85.05
Al-Dulaia	81.82	85.91	91.37	88.16	88.01	100.00	98.92	93.81
Hajer	80.56	79.76	61.94	80.31	80.94	94.37	100.10	97.40
Broome- Mayfa'a	80.56	85.78	94.25	100.00	100.00	94.87	97.76	85.05
Yeabeth	83.06	86.36	87.72	86.71	79.86	80.24	90.54	100.00
Coastal Hadhramout (Total)	87.93	88.23	88.37	88.31	92.63	96.56	100.00	91.62