

Covid19 situation report for WHO Africa

07/04/2020

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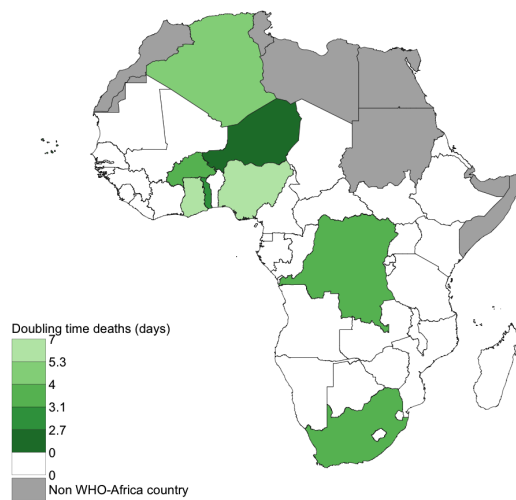
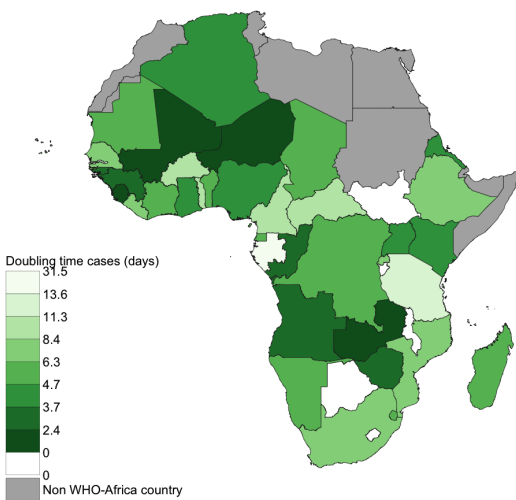
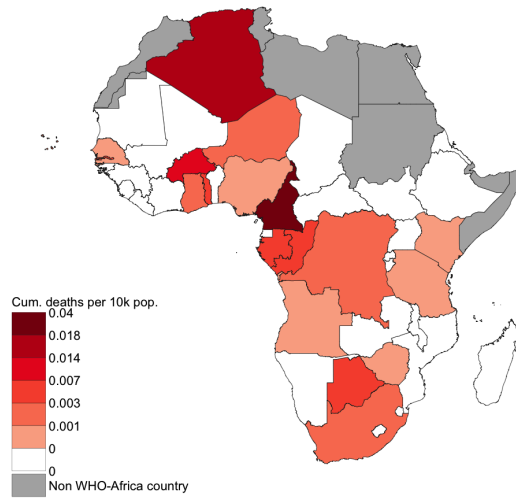
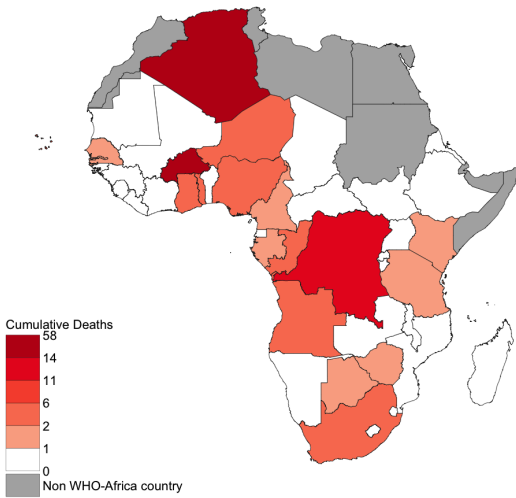
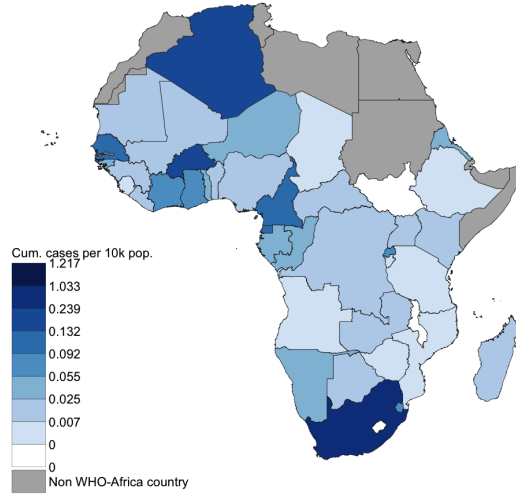
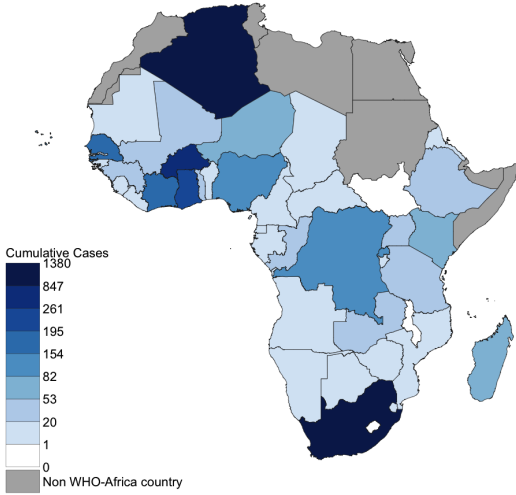
We compare the size and rate of increase of the COVID-19 epidemic across the countries included in WHO Africa Region.



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WHO Africa situation overview



The maps above summarise the in-country situations:

- Top-left: cumulated reported cases.
- Top-right: cumulated reported cases per 10,000 population on a log10 scale.
- Middle-left: cumulated reported deaths.
- Middle-right: cumulated reported deaths per 10,000 population on a log10 scale.
- Bottom-left: Overview of doubling time of cumulative incidence. Doubling times are calculated over a 7 day period up to 02/04/2020.
- Bottom-right: Overview of doubling time of cumulative deaths per 10,000 population. Doubling times are calculated over a 7 day period up to 02/04/2020.

APPENDIX

Data

Sources and access

- Case counts for countries in WHO African region from WHO Coronavirus disease (COVID-2019) situation reports <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports> (accessed 2400 02/04/2020).
- Death counts for countries in WHO African region from WHO Coronavirus disease (COVID-2019) situation reports <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports> (accessed 2400 02/04/2020).
- Population counts from the World Bank (2018) <https://data.worldbank.org/indicator/SP.POP.TOTL?locations=ZG> (accessed 0900 30/03/2020).

Doubling time calculations

Calculated over prior 7 days using method described by *E. Vynnycky & R. White (2010) An Introduction to Infectious Disease Modelling*, page 74.

Confidence intervals calculated using bootstrapping of a simulated dataset with Poisson error structure, using method published here: <https://doi.org/10.1101/2020.02.05.20020750>.

Caveats

- Case count data are affected by any changes in testing strategy or testing effort over time and/or any variation in testing strategy or testing effort between regions.
- Case count data are likely a substantial under-representation of the true number of COVID-19 infections.
- Death data are considered more reliable but may lag behind case data by as much as 3 weeks.

Extended data tables

Cumulative incidence

Country	Cum. Incidence	ci.low	ci.upp
South Africa	1380	1311	1434
Algeria	847	804	890
Burkina Faso	261	248	275
Ghana	195	168	222
Cote d'Ivoire	190	177	217
Senegal	190	168	203
Mauritius	154	126	161
Cameroon	139	NA	NA
Nigeria	139	119	167
Democratic Republic of the Congo	123	107	140
Rwanda	82	73	92
Kenya	81	72	86
Niger	74	63	84
Madagascar	53	42	59
Uganda	44	36	60
Togo	36	26	36
Zambia	36	30	40
Guinea	30	22	37
Mali	28	19	41
Ethiopia	26	20	26
Congo	22	17	26
United Republic of Tanzania	20	13	25
Eritrea	15	11	19
Equatorial Guinea	14	9	21
Benin	13	9	17
Namibia	11	11	21
Mozambique	10	5	15
Seychelles	10	7	12
Eswatini	9	5	12
Guinea Bissau	9	4	12
Angola	8	3	12
Central African Republic	8	5	11
Zimbabwe	8	2	14
Chad	7	4	9
Gabon	7	4	11
Liberia	6	2	10
Mauritania	5	2	8
Cape Verde	5	3	9
Botswana	3	0	5
Gambia	3	0	4
Burundi	2	0	3
Sierra Leone	2	0	4
Comoros	0	NA	NA
Lesotho	0	NA	NA
Malawi	0	NA	NA
South Sudan	0	NA	NA

Cumulative incidence per 10,000 population

Country	Cum. Incidence per 10k pop.	ci.low	ci.upp
Mauritius	1.2171	0.9942	1.2756
Seychelles	1.0335	0.7596	1.1937
South Africa	0.2388	0.2269	0.2481
Algeria	0.2006	0.1903	0.2109
Burkina Faso	0.1321	0.1255	0.1394
Senegal	0.1198	0.1059	0.1284
Equatorial Guinea	0.1070	0.0707	0.1593
Cape Verde	0.0920	0.0552	0.1572
Cote d'Ivoire	0.0758	0.0708	0.0866
Rwanda	0.0667	0.0593	0.0744
Eswatini	0.0658	0.0391	0.0845
Ghana	0.0655	0.0563	0.0745
Cameroon	0.0551	NA	NA
Guinea Bissau	0.0480	0.0237	0.0640
Togo	0.0456	0.0335	0.0451
Namibia	0.0449	0.0468	0.0843
Congo	0.0419	0.0324	0.0487
Gabon	0.0330	0.0210	0.0524
Niger	0.0330	0.0283	0.0376
Eritrea	0.0248	0.0180	0.0314
Guinea	0.0242	0.0177	0.0294
Zambia	0.0207	0.0172	0.0228
Madagascar	0.0202	0.0161	0.0225
Central African Republic	0.0171	0.0117	0.0236
Kenya	0.0158	0.0141	0.0167
Mali	0.0147	0.0100	0.0213
Democratic Republic of the Congo	0.0146	0.0128	0.0167
Botswana	0.0133	0.0000	0.0222
Gambia	0.0132	0.0000	0.0175
Liberia	0.0125	0.0051	0.0198
Mauritania	0.0114	0.0056	0.0171
Benin	0.0113	0.0081	0.0148
Uganda	0.0103	0.0084	0.0139
Nigeria	0.0071	0.0061	0.0085
Zimbabwe	0.0055	0.0017	0.0098
Chad	0.0045	0.0026	0.0058
United Republic of Tanzania	0.0036	0.0023	0.0044
Mozambique	0.0034	0.0018	0.0050
Sierra Leone	0.0026	0.0006	0.0054
Angola	0.0026	0.0010	0.0039
Ethiopia	0.0024	0.0018	0.0024
Burundi	0.0018	0.0004	0.0023
Comoros	0	NA	NA
Lesotho	0	NA	NA
Malawi	0	NA	NA
South Sudan	0	NA	NA

Cumulative deaths

Country	Cum. Deaths
Algeria	58
Burkina Faso	14
Democratic Republic of the Congo	11
Cameroon	6
Ghana	5
Mauritius	5
Niger	5
South Africa	5
Angola	2
Togo	2
Congo	2
Nigeria	2
Botswana	1
Gabon	1
Gambia	1
Kenya	1
Senegal	1
Zimbabwe	1
Cape Verde	1
United Republic of Tanzania	1
Benin	0
Burundi	0
Central African Republic	0
Chad	0
Comoros	0
Cote d'Ivoire	0
Equatorial Guinea	0
Eritrea	0
Eswatini	0
Ethiopia	0
Guinea	0
Guinea Bissau	0
Lesotho	0
Liberia	0
Madagascar	0
Malawi	0
Mali	0
Mauritania	0
Mozambique	0
Namibia	0
Rwanda	0
Seychelles	0
Sierra Leone	0
South Sudan	0
Uganda	0
Zambia	0

Cumulative deaths per 10,000 populations

Country	Cum. Deaths per 10k pop.
Mauritius	0.0395
Cape Verde	0.0184
Algeria	0.0137
Burkina Faso	0.0071
Gabon	0.0047
Botswana	0.0044
Gambia	0.0044
Congo	0.0038
Togo	0.0025
Cameroon	0.0024
Niger	0.0022
Ghana	0.0017
Democratic Republic of the Congo	0.0013
South Africa	0.0009
Zimbabwe	0.0007
Angola	0.0006
Senegal	0.0006
Kenya	0.0002
United Republic of Tanzania	0.0002
Nigeria	0.0001
Benin	0
Burundi	0
Central African Republic	0
Chad	0
Comoros	0
Cote d'Ivoire	0
Equatorial Guinea	0
Eritrea	0
Eswatini	0
Ethiopia	0
Guinea	0
Guinea Bissau	0
Lesotho	0
Liberia	0
Madagascar	0
Malawi	0
Mali	0
Mauritania	0
Mozambique	0
Namibia	0
Rwanda	0
Seychelles	0
Sierra Leone	0
South Sudan	0
Uganda	0
Zambia	0

Doubling time (incidence)

Country	Incidence doubling time (days)	ci.low	ci.upp
Niger	1.3	1.1	1.8
Mali	1.8	1.4	2.6
Zambia	2	1.9	3.1
Guinea	2.4	1.7	3
Congo	2.8	2.1	2.9
Guinea Bissau	3.2	2.7	6.5
Angola	3.5	2	9.3
Zimbabwe	3.5	2.3	7.1
Eritrea	3.7	3	5.6
Kenya	4.1	3.4	4.4
Mauritius	4.1	3.6	4.7
Algeria	4.2	4	4.3
Uganda	4.2	2.7	5.7
Nigeria	4.4	3.7	5.2
Ghana	4.6	4.3	5
Madagascar	4.7	3.6	6
Benin	5.1	2.9	9.8
Mauritania	5.3	3	12
Democratic Republic of the Congo	5.5	4.6	6
Cote d'Ivoire	5.6	5	6.6
Chad	5.7	3.3	16.9
Equatorial Guinea	5.7	4	13
Eswatini	6	3.9	12.4
Namibia	6.2	3.4	9.9
Ethiopia	6.3	4.7	11.8
Liberia	7	3.1	10.5
Mozambique	7	3.7	18.9
Rwanda	7	5.3	8.7
South Africa	7.3	6.9	7.7
Senegal	7.4	6.1	9.8
Burkina Faso	8.4	7.3	9.4
Central African Republic	10.3	4.1	24.2
Togo	10.8	7.8	22.7
United Republic of Tanzania	11.3	7	27.2
Botswana	NA	NA	NA
Burundi	NA	NA	NA
Cape Verde	NA	NA	NA
Cameroon	NA	NA	NA
Comoros	NA	NA	NA
Gabon	NA	NA	NA
Gambia	NA	NA	NA
Lesotho	NA	NA	NA
Malawi	NA	NA	NA
Seychelles	NA	NA	NA
Sierra Leone	NA	NA	NA
South Sudan	NA	NA	NA

Doubling time (deaths)

Country	Deaths doubling time (days)	ci.low	ci.upp
Niger	2.6	2.4	4.6
Cameroon	2.7	2.2	6.2
Burkina Faso	3.1	2.2	4.7
Democratic Republic of the Congo	3.7	2.4	7.3
Algeria	4	3	5.5
Ghana	5.3	3.8	17.7
Angola	NA	NA	NA
Benin	NA	NA	NA
Botswana	NA	NA	NA
Burundi	NA	NA	NA
Cape Verde	NA	NA	NA
Central African Republic	NA	NA	NA
Chad	NA	NA	NA
Comoros	NA	NA	NA
Congo	NA	NA	NA
Cote d'Ivoire	NA	NA	NA
Equatorial Guinea	NA	NA	NA
Eritrea	NA	NA	NA
Eswatini	NA	NA	NA
Ethiopia	NA	NA	NA
Gabon	NA	NA	NA
Gambia	NA	NA	NA
Guinea	NA	NA	NA
Guinea Bissau	NA	NA	NA
Kenya	NA	NA	NA
Lesotho	NA	NA	NA
Liberia	NA	NA	NA
Madagascar	NA	NA	NA
Malawi	NA	NA	NA
Mali	NA	NA	NA
Mauritania	NA	NA	NA
Mauritius	NA	NA	NA
Mozambique	NA	NA	NA
Namibia	NA	NA	NA
Nigeria	NA	NA	NA
Rwanda	NA	NA	NA
Senegal	NA	NA	NA
Seychelles	NA	NA	NA
Sierra Leone	NA	NA	NA
South Africa	NA	NA	NA
South Sudan	NA	NA	NA
Togo	NA	NA	NA
Uganda	NA	NA	NA
United Republic of Tanzania	NA	NA	NA
Zambia	NA	NA	NA
Zimbabwe	NA	NA	NA