



Health and WaSH

Annexure

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Last updated 27 October 2023 using IFs 7.84

Annexure

This theme used IFs version 7.84. All interventions start in 2024, interpolate to 2033 and then are maintained at that level unless indicated otherwise.

Interventions and parameters	Adjustment in IFs	Benchmark/Justification/Notes
Contraception use multiplier (contrusm)	<p>To 1.18 by 2033: Cape Verde. To 1.28 by 2033: Algeria, Benin, Cameroon, Comoros, Rep of Congo, Côte d'Ivoire, Djibouti, Ghana, Kenya, Lesotho, Mauritania, Morocco, São Tomé & Príncipe, Senegal, Eswatini, Tanzania, Tunisia, Zambia, Zimbabwe, Gabon, Egypt.</p> <p>To 1.35 by 2033: Burkina Faso, Burundi, CAR, Eritrea, Ethiopia, Gambia, Guinea, Guinea Bissau, Liberia, Malawi, Madagascar, Mali, Mozambique, Rwanda, Sierra Leone, Somalia, Sudan, South Sudan, Togo, Uganda, Angola, Equatorial Guinea, DR Congo.</p> <p>To 1.4 by 2033: Chad, Niger, Nigeria.</p>	Forecasts initialise from individual country data. Average contraceptive use for Africa increases by 16.3 percentage points above Current Path in 2043. Instead of gap of 43 percentage points with South America (2019), gap closes to 22 points in 2019
Mortality multiplier - AIDS (hlmortm - AIDS)	To 0.6 by 2033: Cameroon, CAR, Rep of Congo, São Tomé & Príncipe, Kenya, S Sudan, Botswana, Lesotho, Mozambique, Namibia, South Africa, Eswatini, Zambia, Zimbabwe, Cape Verde, Côte d'Ivoire, Guinea Bissau, Mali, Malawi, Equatorial Guinea, Nigeria, Sudan, DR Congo, Ethiopia, Uganda, Angola.	Africa has the highest AIDS mortality rates globally. Instead of an aids death rate of 0.128/1 000 in 2043 it is 0.081, down from 0.507 in 2019
Mortality multiplier - diarrhoea (hlmortm - Diarrhea))	To 0.9 by 2033: Chad, CAR, S Sudan, Madagascar, Angola, Lesotho, Cameroon, Eritrea, Zambia, South Africa, Nigeria, Guinea Bissau.	Death rates in Africa comparable to South Asia in 2019 but are declining more rapidly although both are much higher than in South America (at 0.027/1 000). In 2019 it is 0.476/1 000 in Africa and declines to 0.228/1 000 in 2043. In the scenario it declines to 0.168 compared to 0.023 in South America and 0.26 in South Asia. In the

		scenario Africa therefore closes the gap by half with South America.
Mortality multiplier - malaria (hlmortm - Malaria)	To 0.5 by 2033: Equatorial Guinea, Burundi, Burkina Faso, Cameroon, Sierra Leone, Togo, Guinea, CAR, Niger, Mali, Chad, Liberia, Ghana, Côte d'Ivoire, Benin, Uganda, Gabon, Rep of Congo, Angola, Mozambique, Zambia, DR Congo, Nigeria.	Africa has the highest malaria mortality globally. In 2019 it is 0.488/1 000. On the Current Path it declines to 0.192 in 2043. In the scenario it declines to 0.08
Mortality multiplier respiratory infections (hlmortm - Resplnfec)	To 0.6 by 2033: Chad, Angola, S Sudan, Zimbabwe, CAR, Somalia, Madagascar, Lesotho, Guinea, Sierra Leone, Cameroon, Nigeria.	Rates of mortality due to respiratory infections in Africa are much higher than other regions globally. In 2019 it was 0.61/1 000. By 2043 it gets to 0.207 in the scenario instead of 0.291, comparable to rates in South Asia
Mortality multiplier - diabetes (hlmortm - diabetes)	To 0.8 by 2033: Mauritius. To 0.9 by 2033: Lesotho, South Africa, Eswatini, Botswana, Djibouti, Gabon, Morocco, Namibia, Libya, Seychelles, Tunisia, Equatorial Guinea.	Mortality from diabetes in Mauritius is more than double that in the next highest African country (1.401/1 000 vs 0.675/1 000 in Lesotho). Instead of declining to 2.383 it declines to 1.97 in 2043 in the scenario. Other countries with a larger burden are South Africa, Eswatini, Botswana, Djibouti, Gabon, Morocco, Namibia, Libya, Seychelles, Tunisia and Equatorial Guinea.
Mortality multiplier - cardiovascular (hlmortm - CardioVasc)	To 0.9 by 2033: Mauritius, Algeria, Morocco, Tunisia, Seychelles, Cape Verde, Egypt	Intervention on mortality rates from Cardiovascular disease are applied to countries with a higher burden and with slow decline over the forecast horizon.
Mortality multiplier - malignant neoplasm (hlmortm MaligNeoPl)	To 0.9 by 2033: South Africa, Seychelles, Mauritius, Lesotho, Cape Verde.	Intervention on mortality rates from malignant neoplasm are applied to countries with a higher burden and with slow decline over the forecast horizon.
Mortality multiplier - respiratory (hlmortm Respiratory)	To 0.9 by 2033: South Africa, Lesotho, Mauritius, Eswatini, São Tomé & Príncipe, Seychelles.	Intervention on mortality rates from respiratory diseases are applied to

		countries with a higher burden and with slow decline over the forecast horizon.
Mortality multiplier - other communicable diseases (hlmortm OthCommunDis)	To 0.9 by 2033: Burkina Faso, Burundi, CAR, Ethiopia, Guinea, Guinea-Bissau, Liberia, Madagascar, Mali, Niger, Sierra Leone, Somalia, S Sudan, Uganda, Angola, Zambia, Zimbabwe, Côte d'Ivoire, DR Congo, Nigeria. To 0.95 by 2033: Equatorial Guinea.	Intervention on mortality rates from other communicable diseases are applied to countries with a higher burden and with slow decline over the forecast horizon.
Mortality multiplier - other non communicable diseases (hlmortm OtherNonComm)	To 0.85 by 2033: Lesotho, Mauritius, Egypt, Seychelles.	Intervention on mortality rates from other non-communicable diseases are applied to countries with a higher burden and with slow decline over the forecast horizon.
Communicable disease mortality multiplier for children under 5 (hlmortcdchldm)	To 0.72 by 2033: Burkina Faso, Burundi, CAR, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Liberia, Madagascar, Malawi, Mali, Mozambique, Niger, Rwanda, Sierra Leone, Somalia, Sudan, S Sudan, Togo, Uganda, DR Congo. To 0.78 by 2033: Algeria, Angola, Benin, Cameroon, Cape Verde, Chad, Comoros, Rep of Congo, Côte d'Ivoire, Djibouti, Ghana, Kenya, Lesotho, Mauritania, Morocco, São Tomé & Príncipe, Senegal, Eswatini, Tanzania, Tunisia, Zambia, Zimbabwe, Equatorial Guinea, Gabon, Nigeria. To 0.8 by 2033: Egypt. To 0.84 by 2033: Botswana, South Africa. To 0.86 by 2033: Namibia. To 0.89 by 2033: Libya.	Rates in Africa are much higher than for other comparable regions. The intervention moves Africa closer to South America. In 2019 under 5 mortality was 66.68/1 000 in Africa compared to 14.10 in South America and 38.10 in South Asia. By 2043 Africa gets to 26.73 in the scenario instead of 39.96 in the Current Path forecast. South America gets to 7.56 and South Asia to 20.69
Maternal mortality ratio multiplier (matmortratio)	To 0.73 by 2033: Burkina Faso, Burundi, Eritrea, Ethiopia, Gambia, Guinea Bissau, Liberia, Malawi, Mali,	Rates in Africa are much higher than for other comparable regions. The intervention moves Africa closer to

	<p>Mozambique, Niger, Rwanda, Sierra Leone, Somalia, Sudan, Togo, Uganda, DR Congo, Nigeria.</p> <p>To 0.75 by 2033: Mauritania.</p> <p>To 0.78 by 2033: Madagascar, Algeria, Angola, Benin, Cameroon, Chad, Cape Verde, Comoros, Rep of Congo, Côte d'Ivoire, Djibouti, Equatorial Guinea, Ghana, Kenya, Lesotho, Morocco, São Tomé & Príncipe, Senegal, Eswatini, Tanzania, Tunisia, Zambia, Zimbabwe, CAR, S Sudan.</p> <p>To 0.8 by 2033: Gabon.</p> <p>To 0.84 by 2033: Botswana, South Africa.</p> <p>To 0.86 by 2033: Namibia.</p>	<p>South America. In 2019 maternal mortality was 449.8/100 000 live births in Africa compared to 70.26 in South America and 148.2 in South Asia. By 2043 Africa gets to 127.1 in the scenario instead of 193.5 in the Current Path forecast. South America gets to 39.04 and South Asia to 57.25.</p>
<p>Sanitation, improved, percent of population (sanitationm)</p>	<p>To 0.75 by 2033: Cameroon, Kenya, Côte d'Ivoire, Mali, Guinea, Guinea-Bissau, Zambia, Tanzania, Sudan, Benin, Uganda, Mozambique, Eritrea, Niger, S Sudan, Madagascar, Chad.</p> <p>To 0.8 by 2033: Senegal, Ghana, Angola, Zimbabwe, Lesotho, Burundi, Namibia, Ethiopia.</p> <p>To 0.85 by 2033: Gabon, Equatorial Guinea, Djibouti, Gambia, Mauritania.</p> <p>To 0.9 by 2033: South Africa, Cape Verde.</p>	<p>Rates in Africa are much lower than for other comparable regions. The intervention moves Africa closer to South America. In 2019 improved access was at 57.43% in Africa compared to 91.22% in South America and 76.1% in South Asia. By 2043 Africa gets to 81.63% in the scenario instead of 72.35% in the Current Path forecast. South America gets to 93.07% and South Asia to 87.75%.</p>
<p>Water source safe, percentage of people (watsafem)</p>	<p>To 0.95 by 2033: South Africa, Morocco.</p> <p>To 0.9 by 2033: Malawi.</p> <p>To 0.85 by 2033: Gabon, Ghana, Namibia, Mauritania, Somalia, Mali, Rwanda, Liberia, Eritrea, Togo, Guinea Bissau, Sierra Leone, Ethiopia, Niger, Angola, Madagascar.</p> <p>To 0.8 by 2033: Equatorial Guinea, Nigeria.</p>	<p>Rates in Africa are much lower than for other comparable regions. The intervention moves Africa closer to South America. In 2019 improved access was at 79.32% in Africa compared to 96.73% in South America and 94.51% in South Asia. By 2043 Africa gets to 89.17% in the scenario instead of 86.69% in the Current Path forecast. South America gets to 97.39% and South Asia to 97.85%.</p>

	To 0.75 by 2033: Senegal, Sudan, Burundi, Côte d'Ivoire, Guinea, Lesotho, Benin, Uganda, Zimbabwe, Burkina Faso, Cameroon, S Sudan, Kenya, Zambia, Mozambique, Chad.	
Sanitation, improved, percentage of population with access to (sanitationm improved)	To 1.5 by 2033: DR Congo, Nigeria.	In place of reduction in unimproved that is used for other countries.
Water source safe, percentage of population with access to (watsafem othimproved)	To 1.2 by 2033: DR Congo.	In place of reduction in unimproved that is used for other countries.
Water source safe, percentage of population with access to (watsafem piped)	To 1.05 by 2033: Tanzania.	In place of reduction in unimproved that is used for other countries.

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About the authors

Dr Jakkie Cilliers is the ISS's founder and former executive director of the ISS. He currently serves as chair of the ISS Board of Trustees and head of the African Futures and Innovation (AFI) programme at the Pretoria office of the ISS. His 2017 best-seller *Fate of the Nation* addresses South Africa's futures from political, economic and social perspectives. His three most recent books, *Africa First! Igniting a Growth Revolution* (March 2020), *The Future of Africa: Challenges and Opportunities* (April 2021), and *Africa Tomorrow: Pathways to Prosperity* (June 2022) take a rigorous look at the continent as a whole.

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