Scenarios for Nigeria modeling (2020 – 2021) Coverage Assumptions (funded scenario files were used to identify areas where ITN campaign will take place and core SMC LGAs)

Scenario 1 **Disruption**

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs
3. SMC: Assumed 80% coverage and 4 SMC rounds in the 216 SMC core LGAs. Maximum SMC age is five

Scenario 2 – **Mitigation** for Scenario 1, SMC is expanded up to 10 years

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs
3. SMC: Assumed 80% coverage and 4 SMC rounds in the 216 SMC core areas. Maximum SMC age is 10

Scenario 3 – Mitigation for Scenario 1, SMC is expanded up to 15 years

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs
3. SMC: Assumed 80% coverage and 4 SMC rounds in the 216 SMC core LGAs. Maximum SMC age is 15

Scenario 4 – Mitigation for Scenario 1, SMC is expanded up to all ages

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs
3. SMC: Assumed 80% coverage and 4 SMC rounds in the 216 SMC core LGAs. Maximum SMC age is 100

Scenario 5 – Mitigation for Scenario 1, SMC is expanded up 10 years and to all states

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs
3. SMC: Assumed 80% coverage and 4 SMC rounds in all 774 LGAs. Maximum SMC age is 10

Scenario 6 – Mitigation for Scenario 1, SMC is expanded up 15 years and to all states

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs
3. SMC: Assumed 80% coverage and 4 SMC rounds in all 774 LGA. Maximum SMC age is 15

Scenario 7 – Mitigation for Scenario 1, SMC is expanded to all ages and to all states

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs
3. SMC: Assumed 80% coverage and 4 SMC rounds in all 774 LGA. Maximum SMC age is 100

Scenario 8 – **Disruption**

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 25%
3. SMC: Assumed 80% coverage and 4 SMC rounds in 216 SMC core LGAs. Maximum SMC age is 5

Scenario 9 – **Mitigation** for Scenario 8, SMC is expanded up to 10 years

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 25%
3. SMC: Assumed 80% coverage and 4 SMC rounds in 216 SMC core LGAs. Maximum SMC age is 10

Scenario 10 – **Mitigation** for Scenario 8, SMC is expanded up to 15 years

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 25%
3. SMC: Assumed 80% coverage and 4 SMC rounds in 216 SMC core LGAs. Maximum SMC age is 15

Scenario 11 – **Mitigation** for Scenario 8, SMC is expanded to all ages

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 25%
3. SMC: Assumed 80% coverage and 4 SMC rounds in 216 SMC core LGAs. Maximum SMC age is 100

Scenario 12 – **Mitigation** for Scenario 8, SMC is expanded up to 10 years and to all states

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 25%
3. SMC: Assumed 80% coverage and 4 SMC rounds in all 774 LGAs. Maximum SMC age is 10

Scenario 13 – **Mitigation** for Scenario 8, SMC is expanded up to 15 years and to all states

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 25%
3. SMC: Assumed 80% coverage and 4 SMC rounds in all 774 LGAs. Maximum SMC age is 15

Scenario 14 – **Mitigation** for Scenario 8, SMC is expanded up to all ages and to all states

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 25%
3. SMC: Assumed 80% coverage and 4 SMC rounds in all 774 LGAs. Maximum SMC age is 100

Scenario 15 – **Disruption**

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 50%
3. SMC: Assumed 80% coverage and 4 SMC rounds in 216 SMC core LGAs. Maximum SMC age is 5

Scenario 16 – **Mitigation** for Scenario 15, SMC is expanded up to 10 years

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 50%
3. SMC: Assumed 80% coverage and 4 SMC rounds in 216 SMC core LGAs. Maximum SMC age is 10

Scenario 17 – **Mitigation** for Scenario 15, SMC is expanded up to 15 years

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 50%
3. SMC: Assumed 80% coverage and 4 SMC rounds in 216 SMC core LGAs. Maximum SMC age is 15

Scenario 18 – **Mitigation** for Scenario 15, SMC is expanded to all ages

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 50%
3. SMC: Assumed 80% coverage and 4 SMC rounds in 216 SMC core LGAs. Maximum SMC age is 100

Scenario 19 – **Mitigation** for Scenario 15, SMC is expanded up to 10 years, all states

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 50%
3. SMC: Assumed 80% coverage and 4 SMC rounds in all 774 LGAs. Maximum SMC age is 10

Scenario 20 – **Mitigation** for Scenario 15, SMC is expanded up to 15 years, all states

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 50%
3. SMC: Assumed 80% coverage and 4 SMC rounds in all 774 LGAs. Maximum SMC age is 15

Scenario 21 – **Mitigation** for Scenario 15, SMC is expanded up to all years, all states

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 50%
3. SMC: Assumed 80% coverage and 4 SMC rounds in all 774 LGAs. Maximum SMC age is 100

Scenario 22 – **Disruption**

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 75%
3. SMC: Assumed 80% coverage and 4 SMC rounds in 216 SMC core LGAs. Maximum SMC age is 5

Scenario 23 – **Mitigation** for Scenario 22, SMC is expanded up to 10 years

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 75%
3. SMC: Assumed 80% coverage and 4 SMC rounds in 216 SMC core LGAs. Maximum SMC age is 10

Scenario 24 – **Mitigation** for Scenario 22, SMC is expanded up to 15 years

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 75%
3. SMC: Assumed 80% coverage and 4 SMC rounds in 216 SMC core LGAs. Maximum SMC age is 15

Scenario 25 – **Mitigation** for Scenario 22, SMC is expanded to all ages

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 75%
3. SMC: Assumed 80% coverage and 4 SMC rounds in 216 SMC core LGAs. Maximum SMC age is 100

Scenario 26 – **Mitigation** for Scenario 22, SMC is expanded up to 10 years and all states

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 75%
3. SMC: Assumed 80% coverage and 4 SMC rounds in all 774 LGAs. Maximum SMC age is 10

Scenario 27 – **Mitigation** for Scenario 22, SMC is expanded up to 15 years and all states

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 75%
3. SMC: Assumed 80% coverage and 4 SMC rounds in all 774 LGAs. Maximum SMC age is 15

Scenario 28 – **Mitigation** for Scenario 22, SMC is expanded up to all ages and all states

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: Allowed CM to scale additively based on values from a linear model of coverage on year (2013 – 2018) in all 774 LGAs. Final values were reduced by 75%
3. SMC: Assumed 80% coverage and 4 SMC rounds in all 774 LGAs. Maximum SMC age is 100

Scenario 29 – **Disruption**

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: No CM, i.e coverage levels was kept as 0%
3. SMC: Assumed 80% coverage and 4 SMC rounds in the 216 SMC core LGAs. Maximum SMC age is five

Scenario 30 – **Mitigation** for Scenario 29, SMC is expanded up to 10 years

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: No CM, i.e coverage levels was kept as 0%
3. SMC: Assumed 80% coverage and 4 SMC rounds in the 216 SMC core LGAs. Maximum SMC age is 10

Scenario 31 – **Mitigation** for Scenario 29, SMC is expanded up to 15 years

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: No CM, i.e coverage levels was kept as 0%
3. SMC: Assumed 80% coverage and 4 SMC rounds in the 216 SMC core LGAs. Maximum SMC age is 15

Scenario 32 – **Mitigation** for Scenario 29, SMC is expanded to all ages

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: No CM, i.e coverage levels was kept as 0%
3. SMC: Assumed 80% coverage and 4 SMC rounds in the 216 SMC core LGAs. Maximum SMC age is 100

Scenario 33 – **Mitigation** for Scenario 29, SMC is expanded up to 10 years and all states

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: No CM, i.e coverage levels was kept as 0%
3. SMC: Assumed 80% coverage and 4 SMC rounds in all 774 LGAs. Maximum SMC age is 10

Scenario 34 – **Mitigation** for Scenario 29, SMC is expanded up to 15 years and all states

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: No CM, i.e coverage levels was kept as 0%
3. SMC: Assumed 80% coverage and 4 SMC rounds in all 774 LGAs. Maximum SMC age is 15

Scenario 35 – **Mitigation** for Scenario 29, SMC is expanded to ages and all states

1. ITN: Assumed 80% coverage of interventions in areas with < 80% and kept those with greater than 80% as is. 378 eligible LGAs received ITN in 2020, 90 in 2021.
2. CM: No CM, i.e coverage levels was kept as 0%
3. SMC: Assumed 80% coverage and 4 SMC rounds in all 774 LGAs. Maximum SMC age is 100