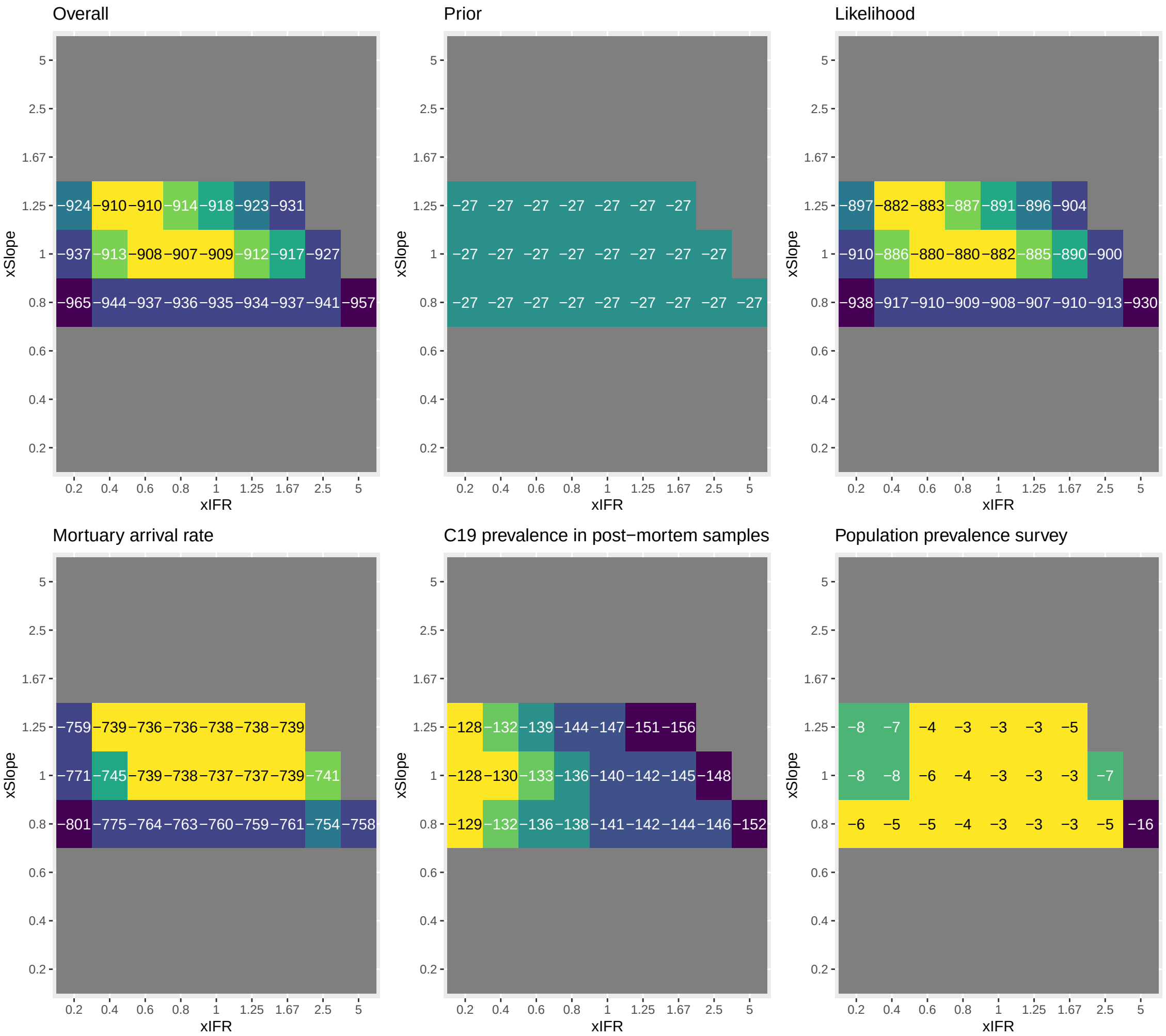
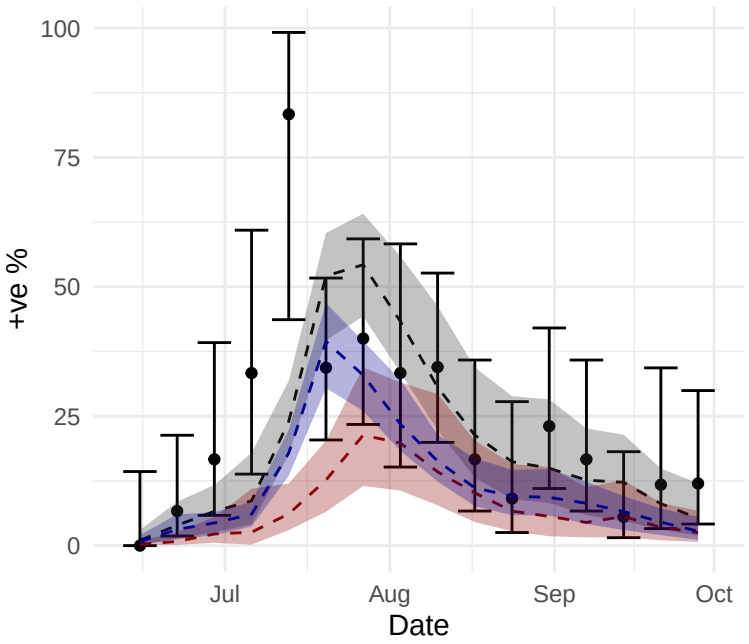
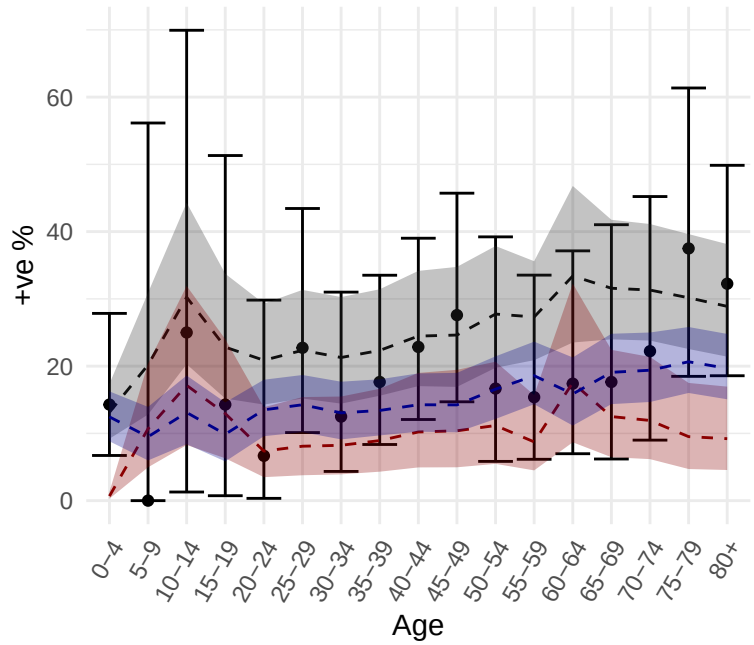
Rt_rw prior set to 3



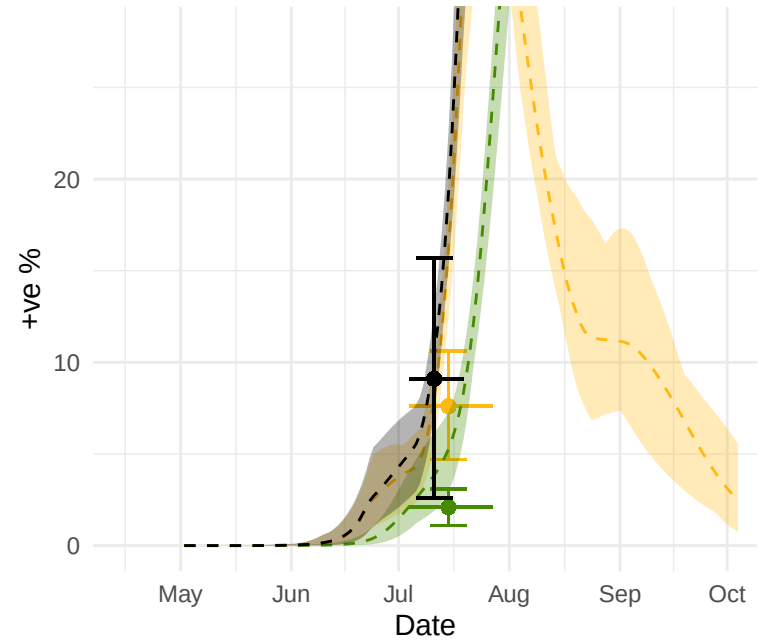
IFR x 0.2, Slope x 0.8
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

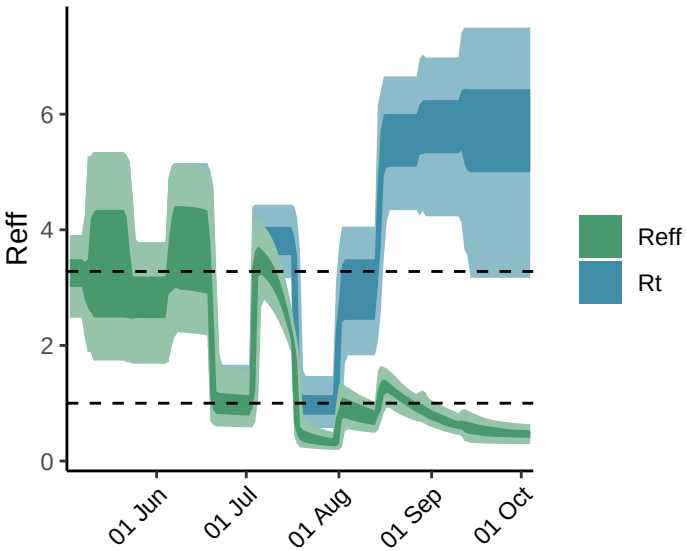


COVID−19 prevalence
Lusaka/Zambia

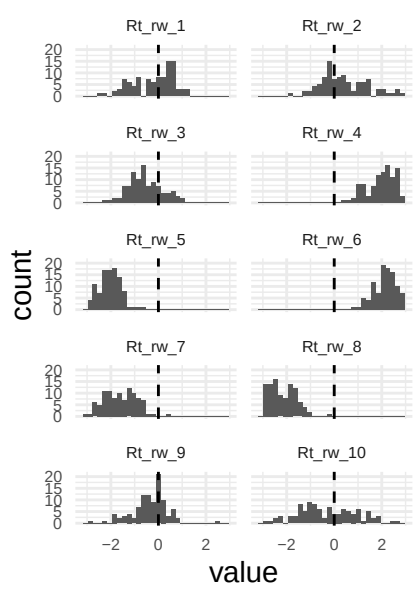


Total +ve deaths
Causal deaths
Coincidental deaths

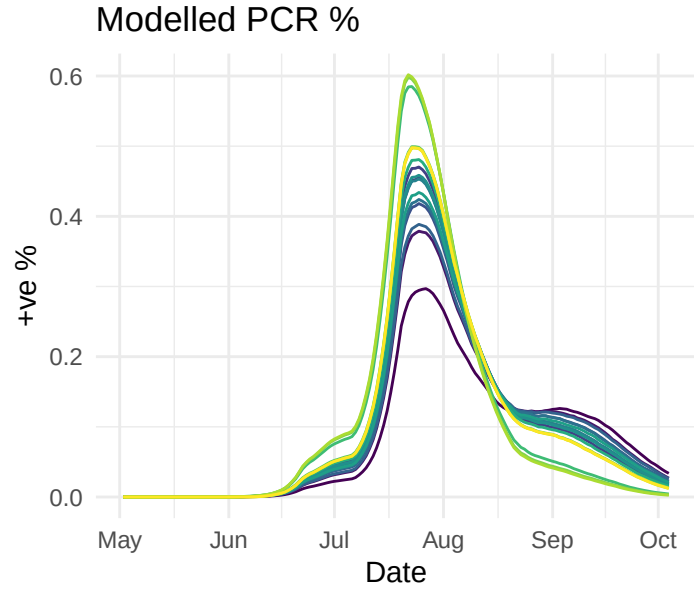
Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)



Reff
Rt

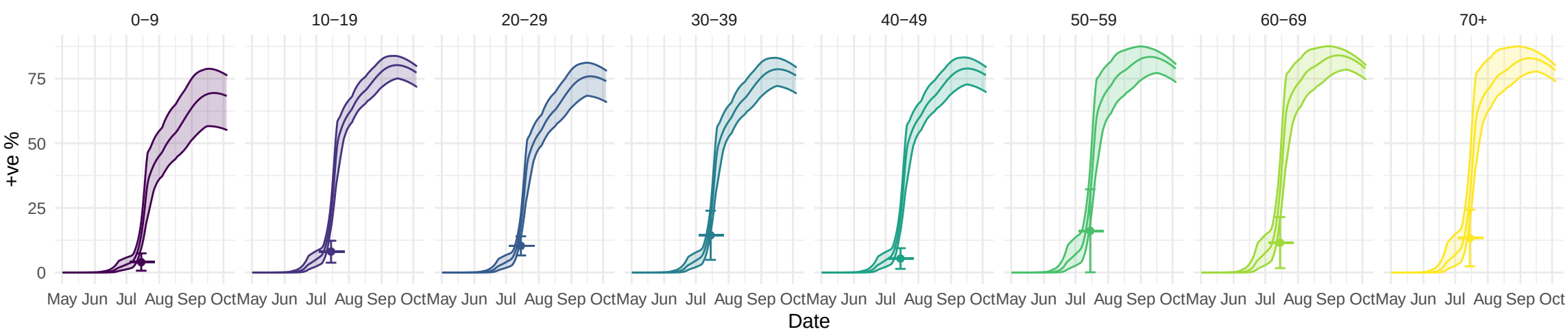


Modelled PCR %



Age: 0−4
Age: 5−9
Age: 10−14
Age: 15−19
Age: 20−24
Age: 25−29
Age: 30−34
Age: 35−39
Age: 40−44
Age: 45−49
Age: 50−54
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



IFR x 0.2, Slope x 0.8
COVID−19 weekly deaths (Mortuary)

Age: 0−4; Pois ll = −49.7
Age: 5−9; Pois ll = −35.7
Age: 10−14; Pois ll = −29.2
Age: 15−19; Pois ll = −36.3
Age: 20−24; Pois ll = −45.5
Age: 25−29; Pois ll = −42.2
Age: 30−34; Pois ll = −51.5
Age: 35−39; Pois ll = −48.8
Age: 40−44; Pois ll = −48.7
Age: 45−49; Pois ll = −50
Age: 50−54; Pois ll = −51.3
Age: 55−59; Pois ll = −51.5
Age: 60−64; Pois ll = −46.8
Age: 65−69; Pois ll = −48.1
Age: 70−74; Pois ll = −46.5
Age: 75−79; Pois ll = −53.5
Age: 80+; Pois ll = −65.6

Deaths

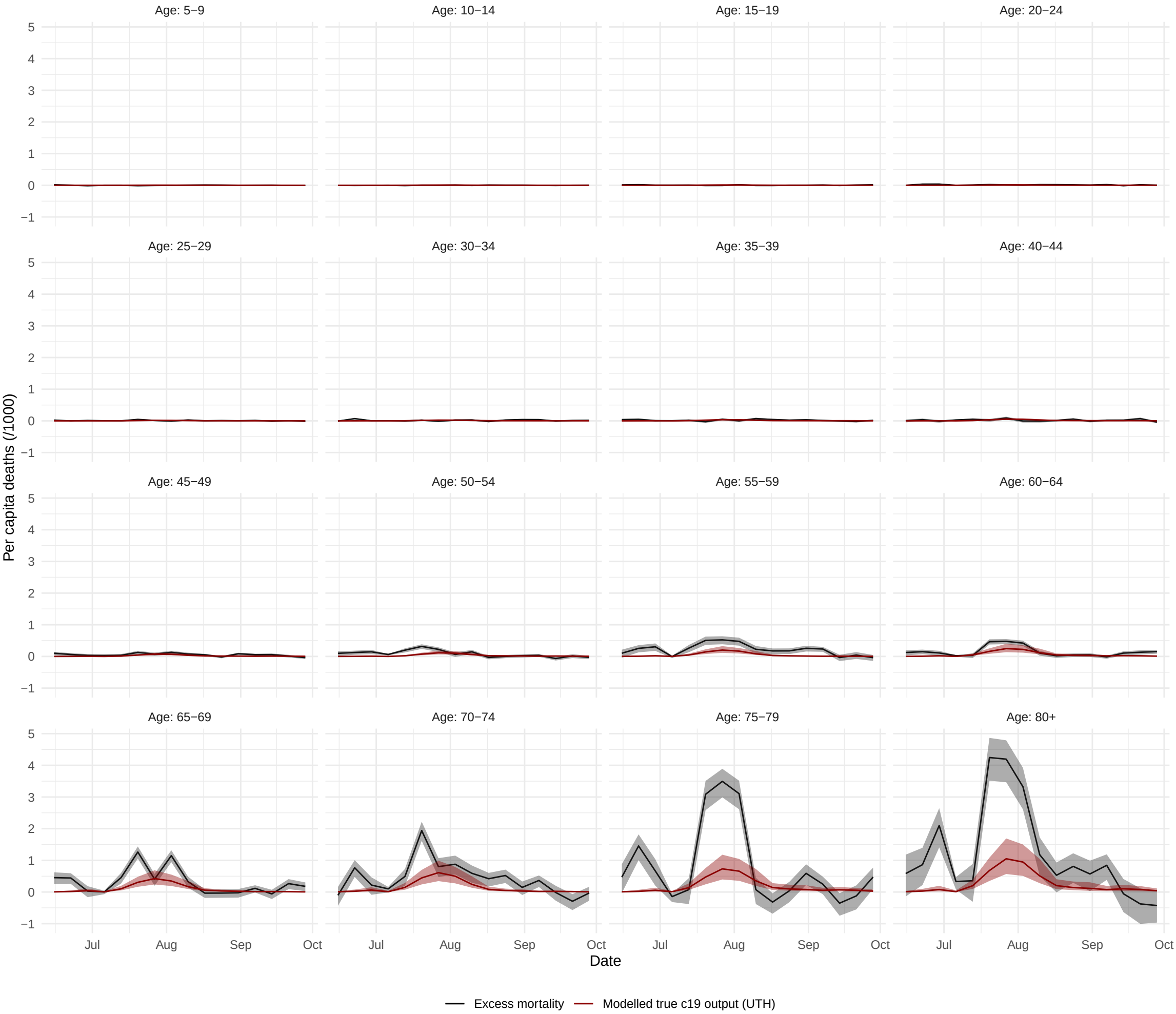
0
20
40
60

Jul
Aug
Sep
Oct

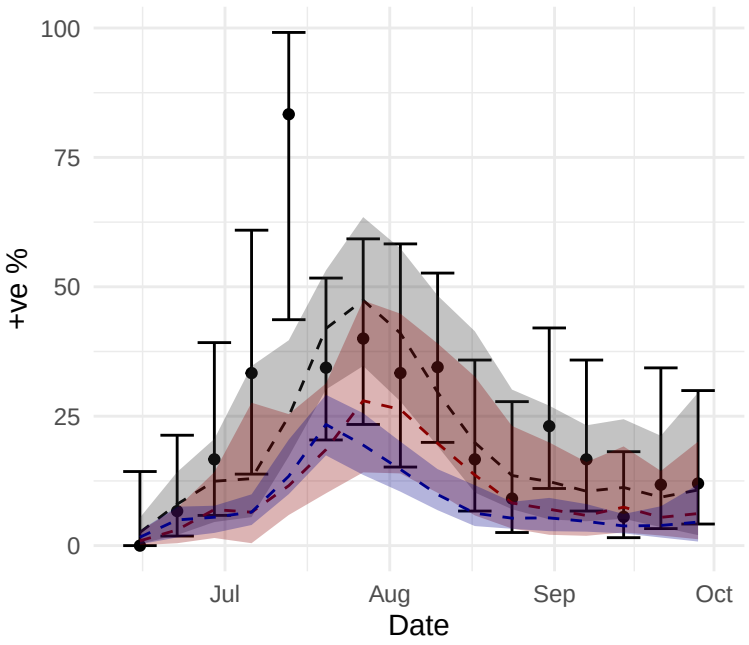
Date

Mortuary deaths
Mortuary surveillance disrupted?
Model fit
Model fit (unstandardised)

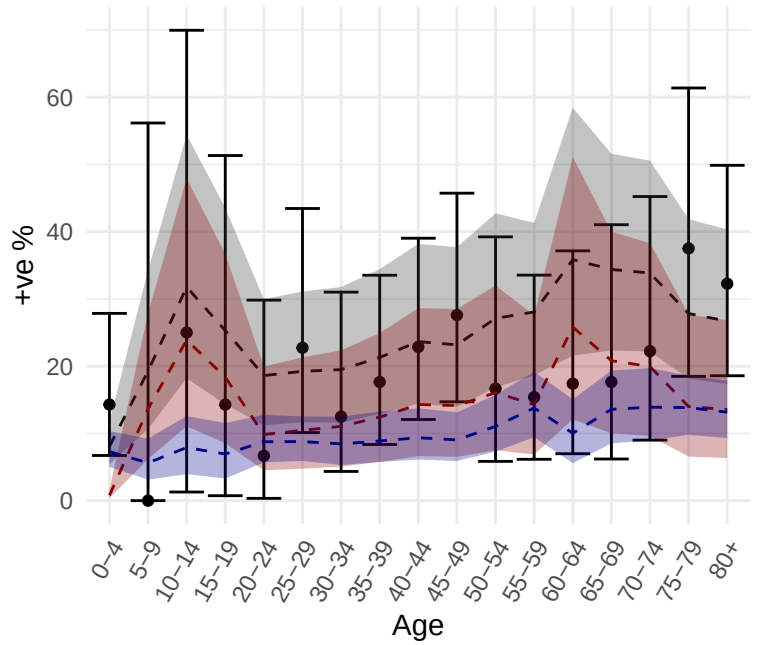
IFR x 0.2, Slope x 0.8
COVID−19 excess mortality: Comparison of MCMC results with squire results



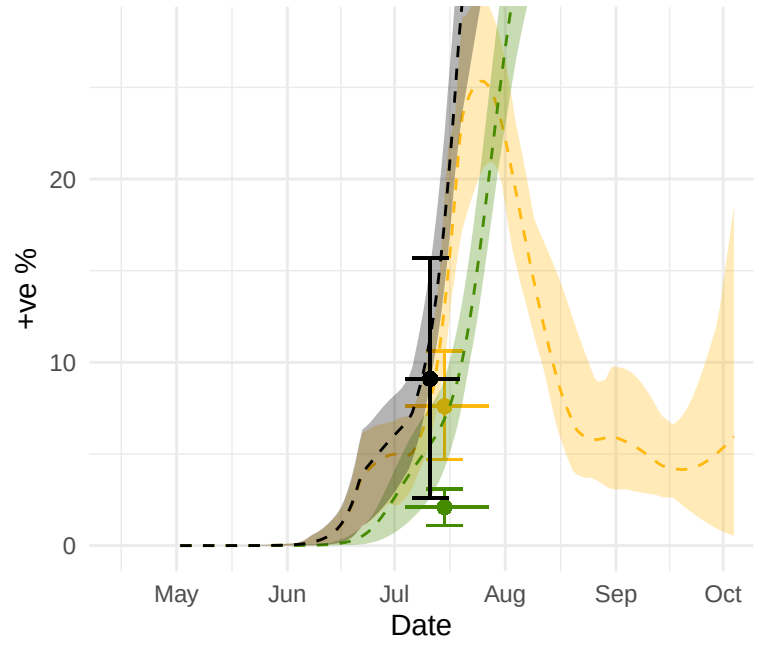
IFR x 0.4, Slope x 0.8
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

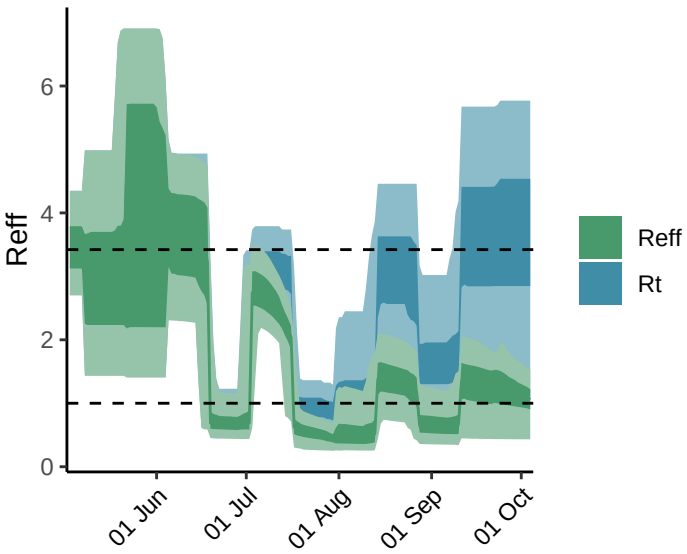


COVID−19 prevalence
Lusaka/Zambia

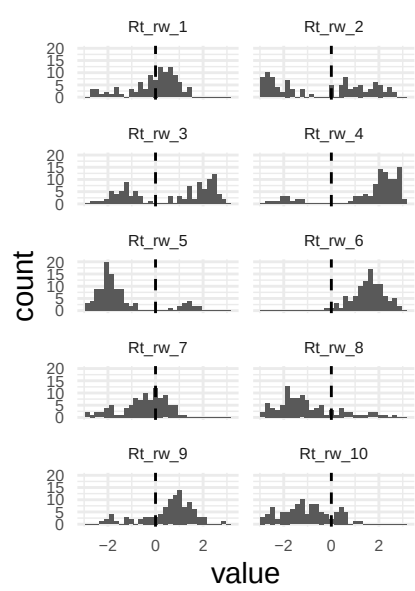


Total +ve deaths
Causal deaths
Coincidental deaths

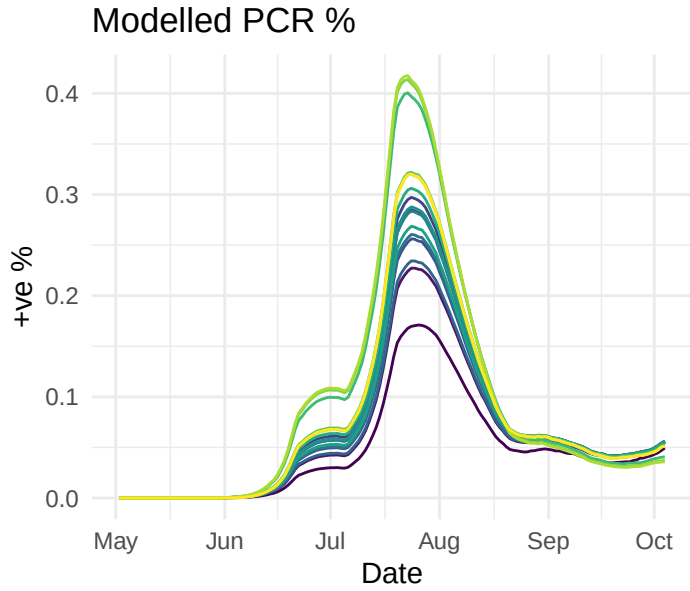
Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)



Reff
Rt

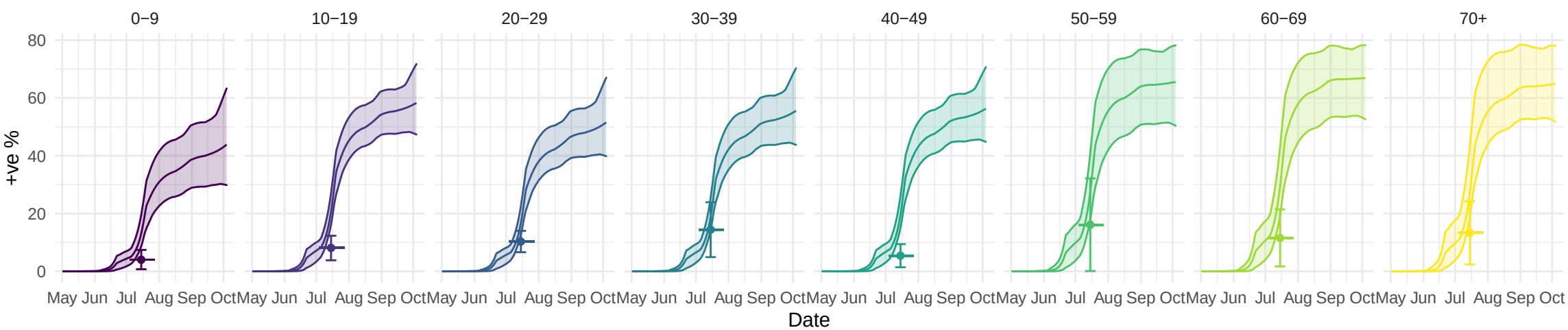


Modelled PCR %

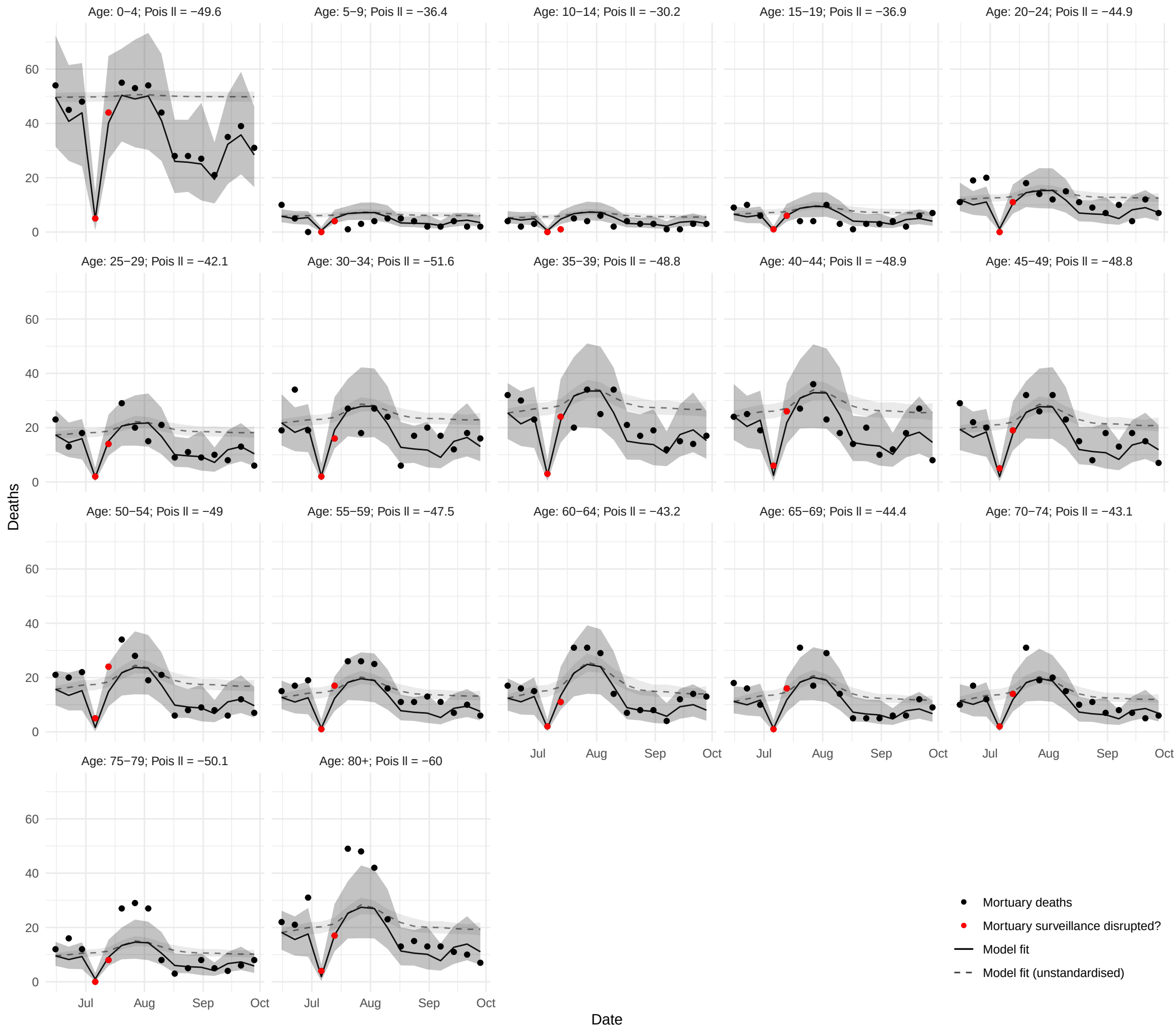


Age: 0−4
Age: 5−9
Age: 10−14
Age: 15−19
Age: 20−24
Age: 25−29
Age: 30−34
Age: 35−39
Age: 40−44
Age: 45−49
Age: 50−54
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia

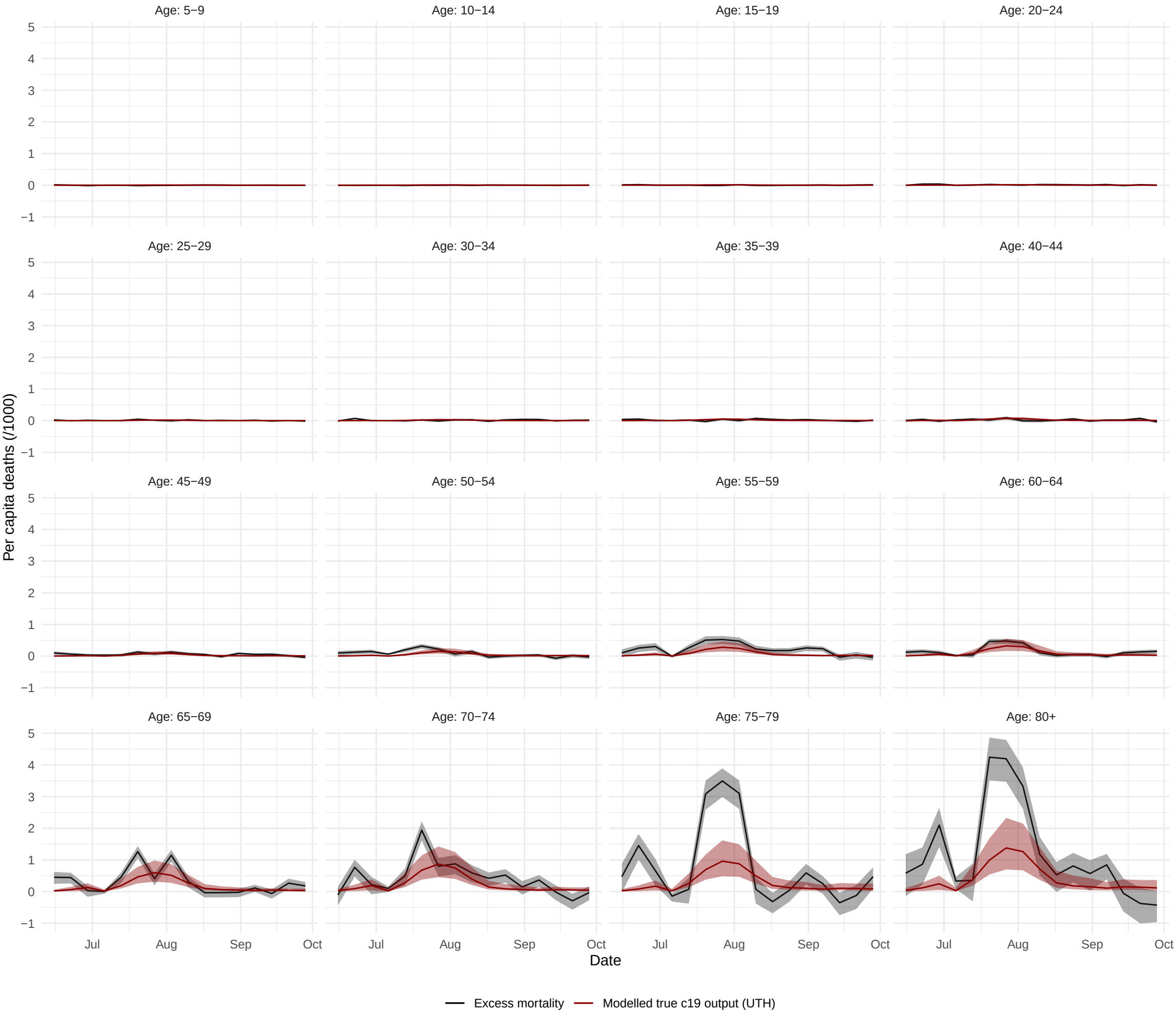


IFR x 0.4, Slope x 0.8
COVID−19 weekly deaths (Mortuary)

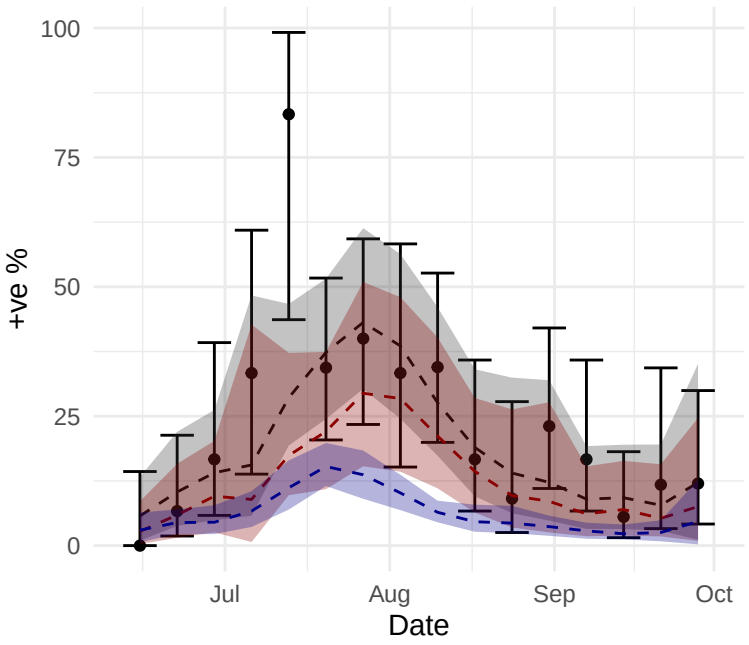


IFR x 0.4, Slope x 0.8

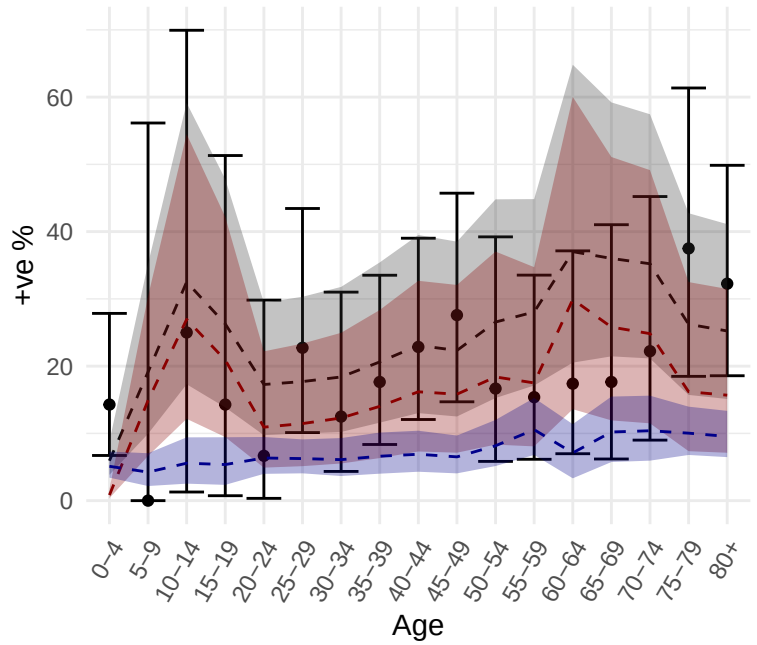
COVID−19 excess mortality: Comparison of MCMC results with squire results



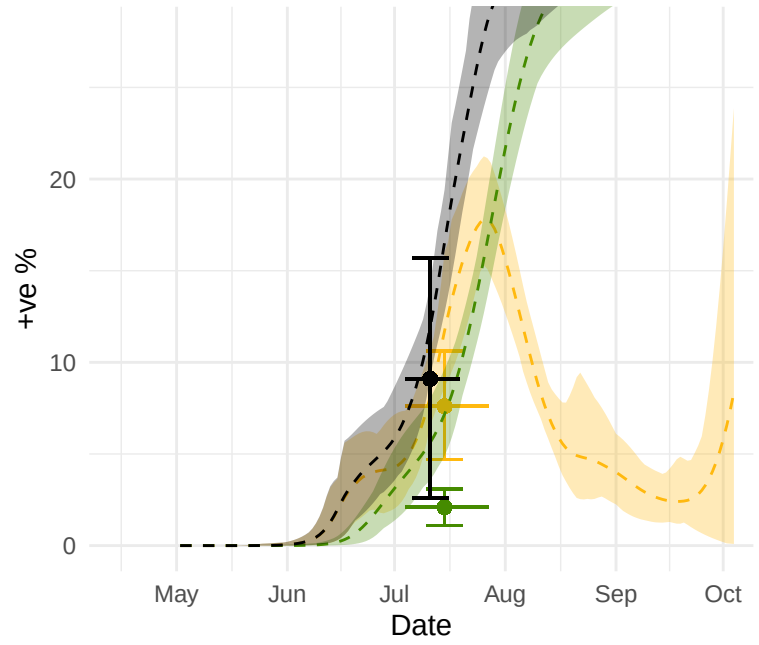
IFR x 0.6, Slope x 0.8
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

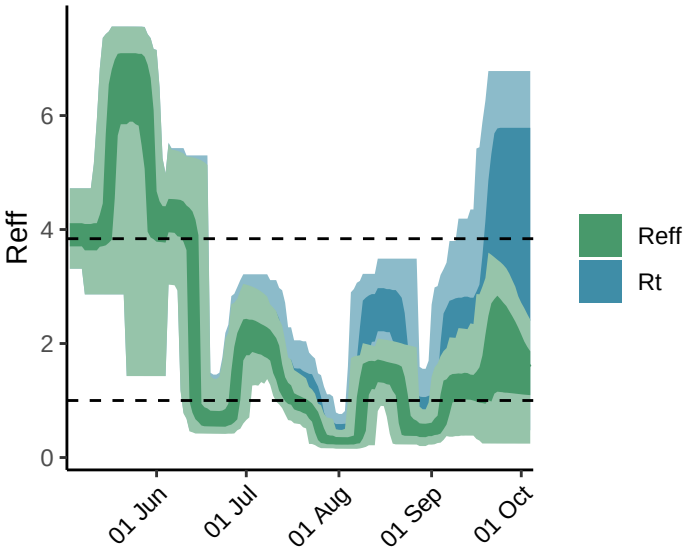


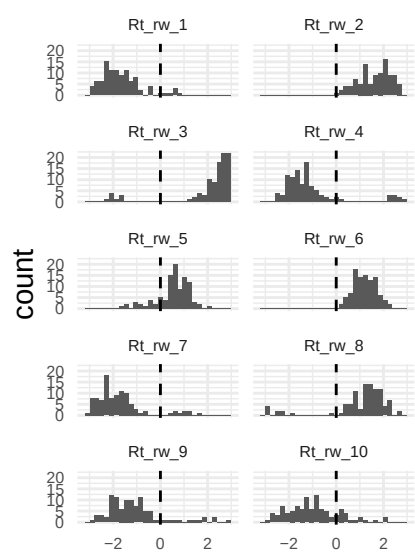
COVID−19 prevalence
Lusaka/Zambia



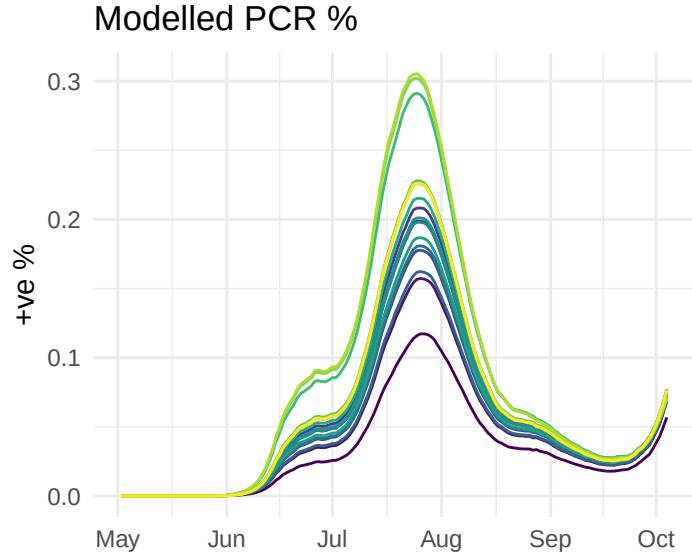
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)



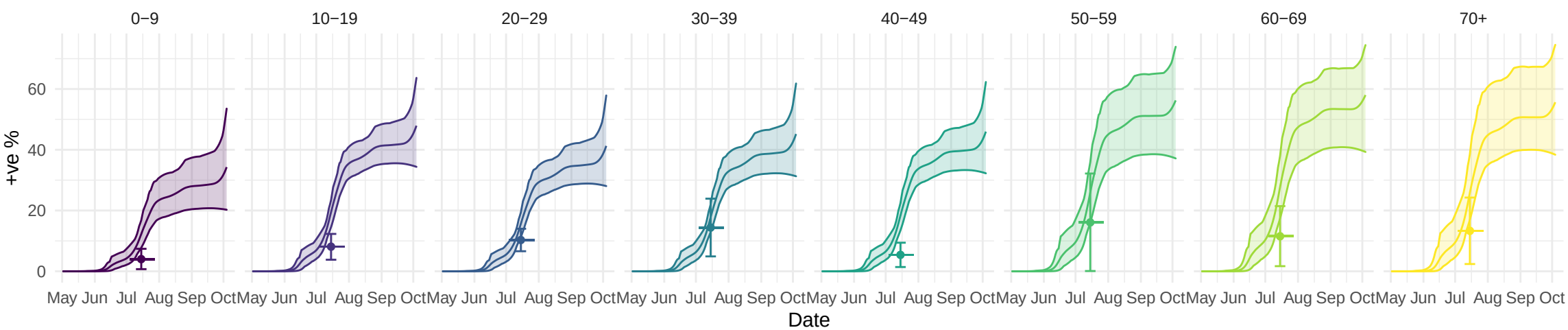


Modelled PCR %

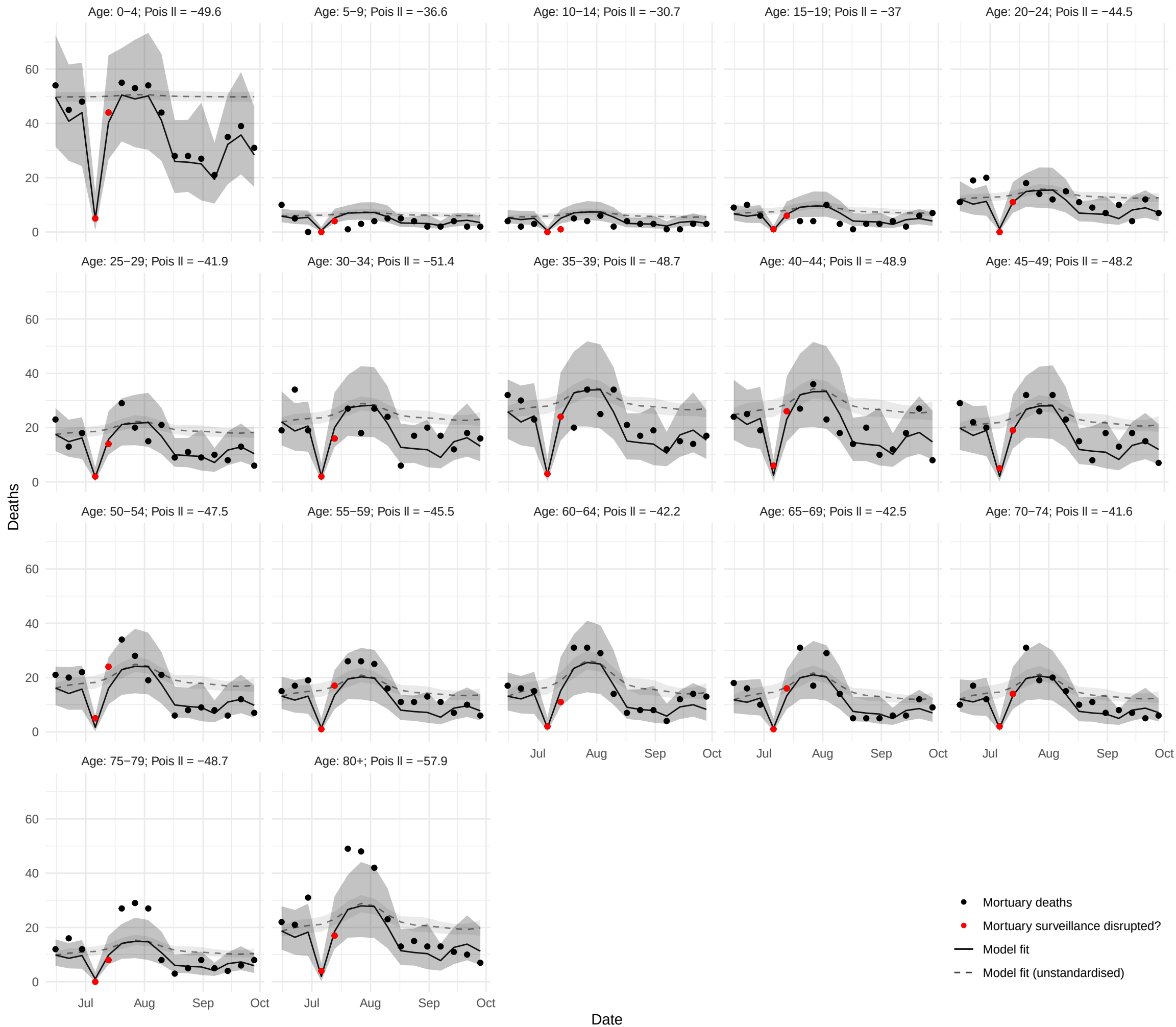


Age: 0−4
Age: 5−9
Age: 10−14
Age: 15−19
Age: 20−24
Age: 25−29
Age: 30−34
Age: 35−39
Age: 40−44
Age: 45−49
Age: 50−54
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

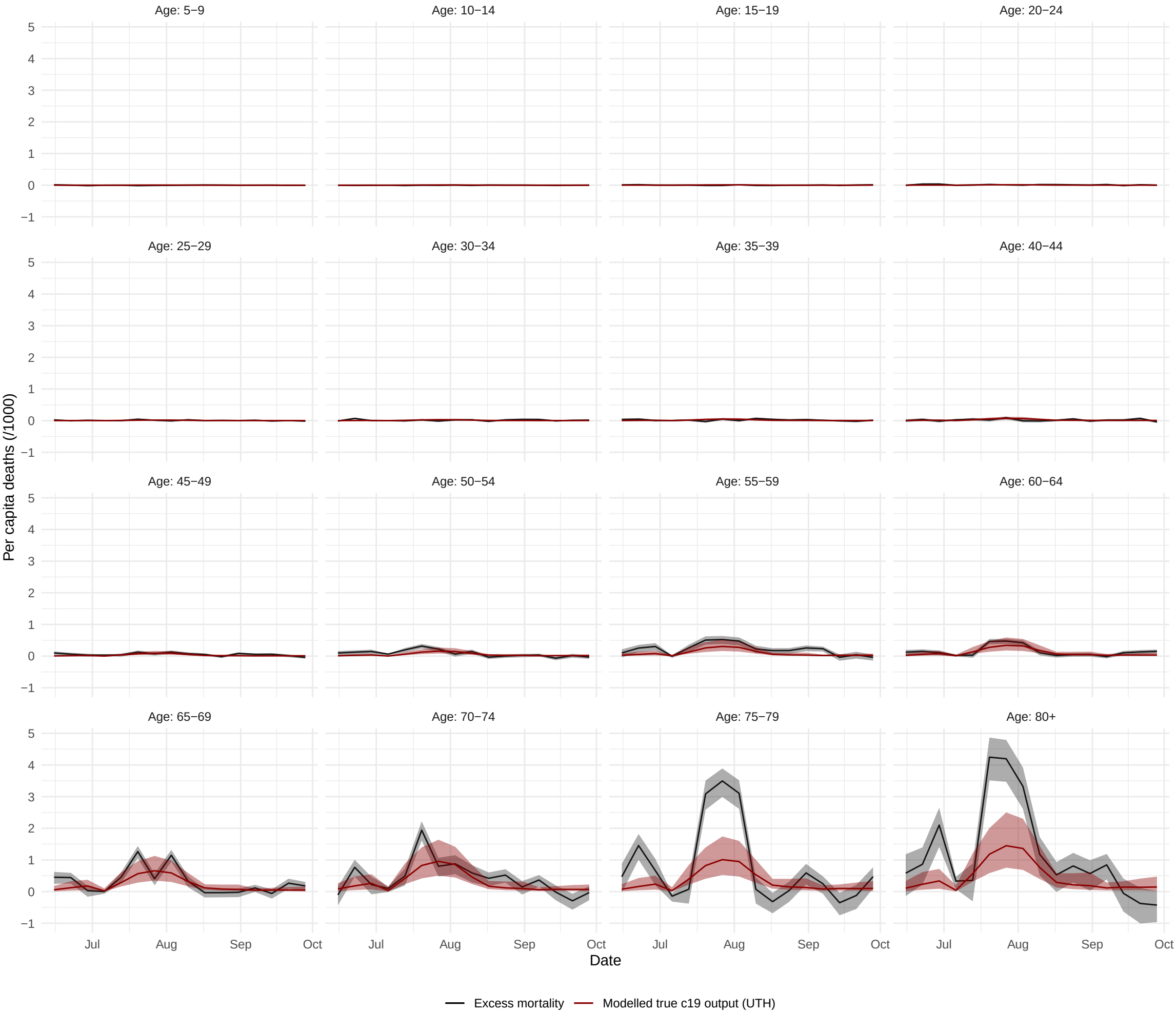
Modelled combined prevalence, Lusaka/Zambia



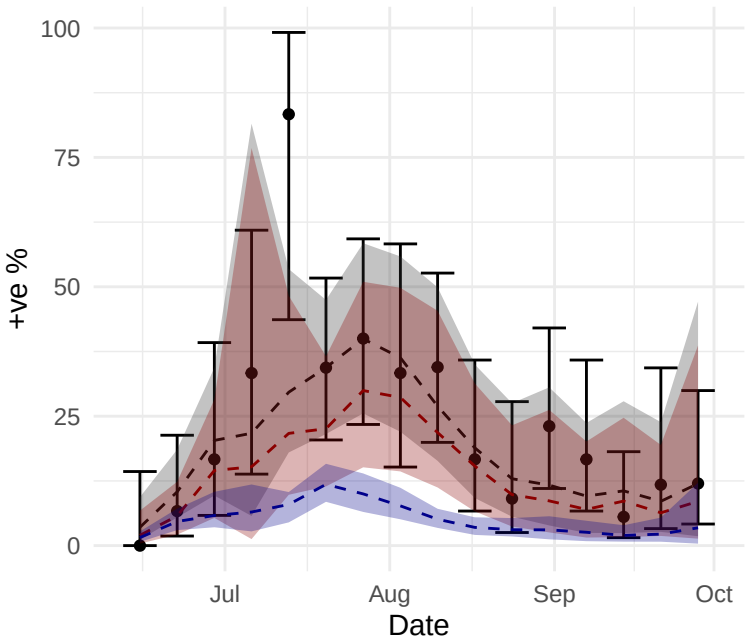
IFR x 0.6, Slope x 0.8
COVID−19 weekly deaths (Mortuary)



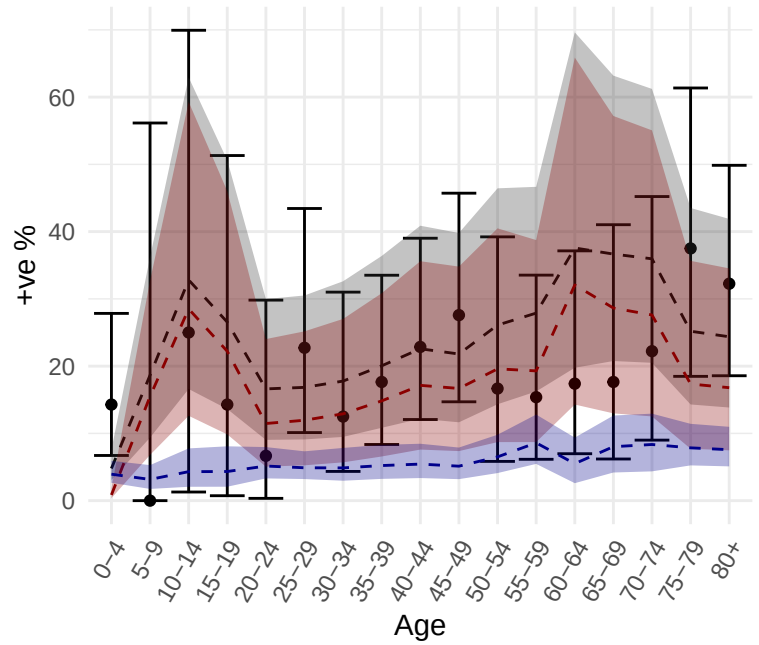
IFR x 0.6, Slope x 0.8
COVID−19 excess mortality: Comparison of MCMC results with squire results



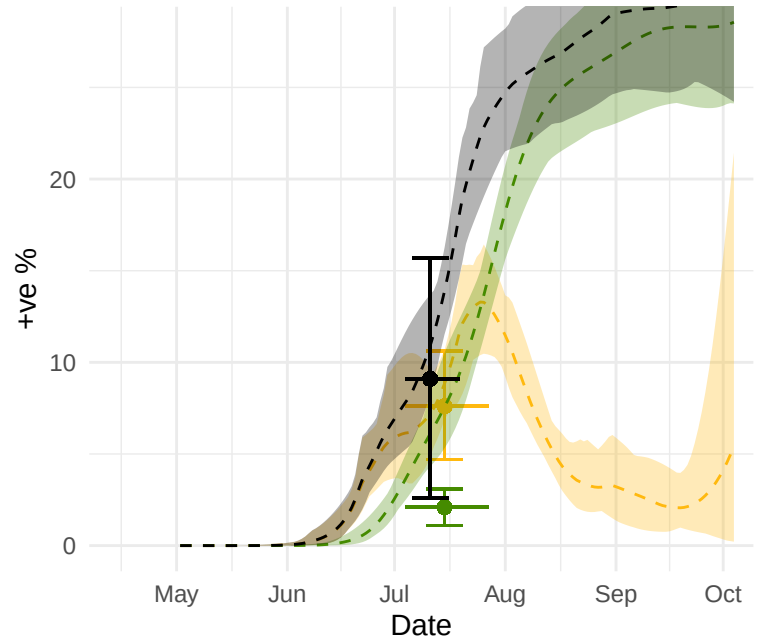
IFR x 0.8, Slope x 0.8
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

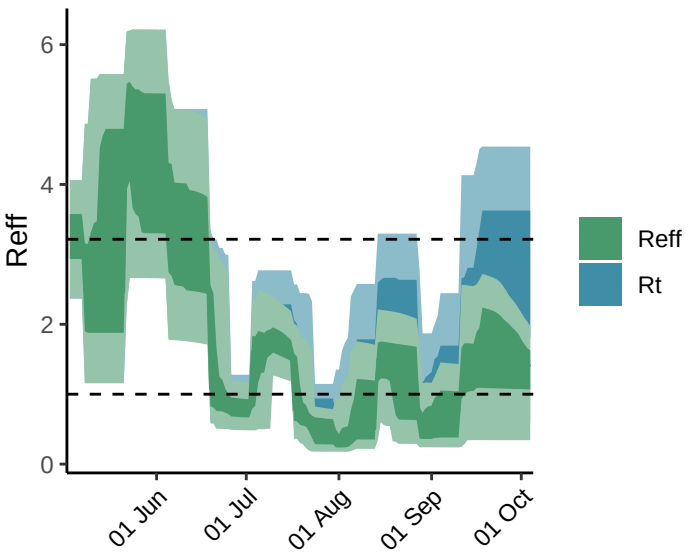


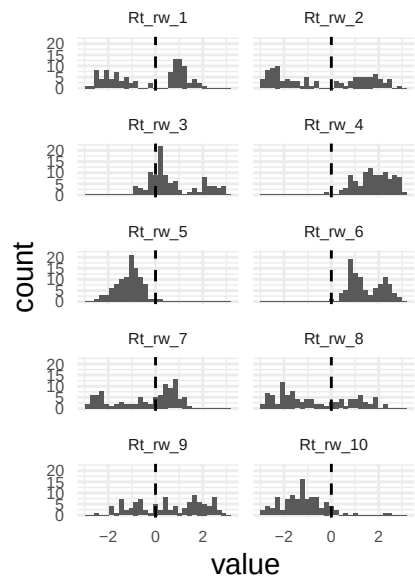
COVID−19 prevalence
Lusaka/Zambia



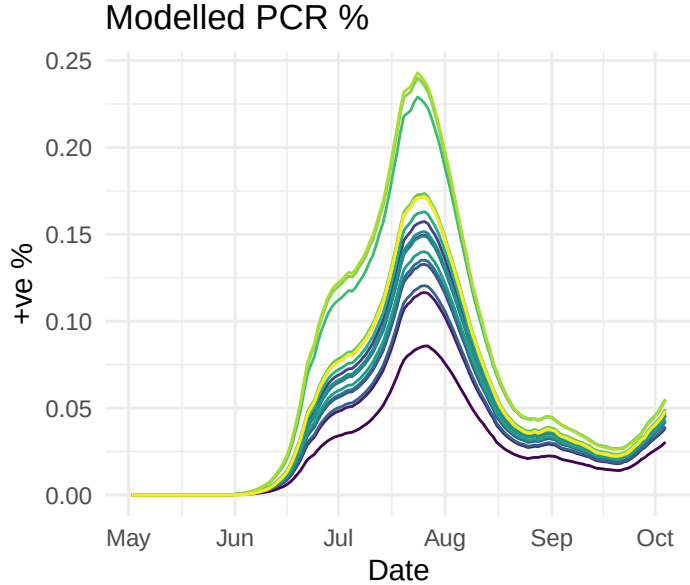
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)



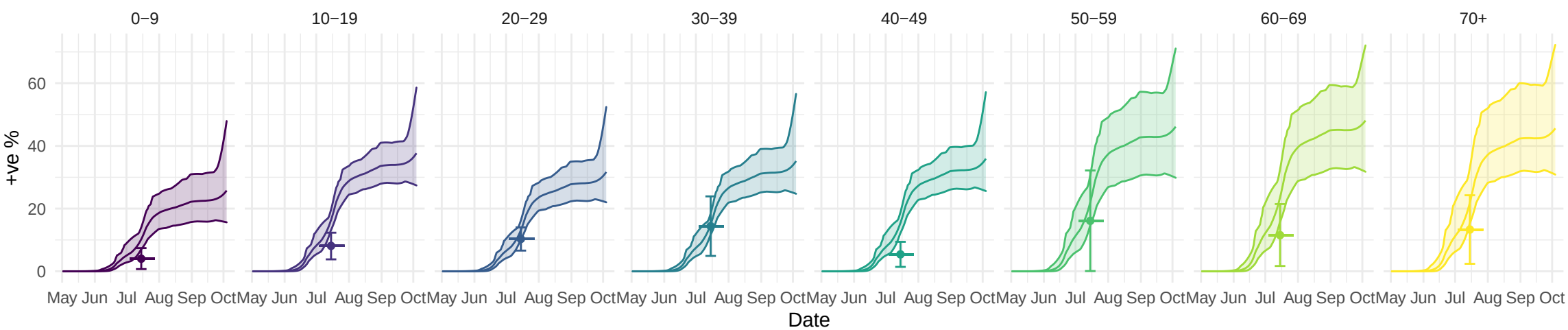


Modelled PCR %

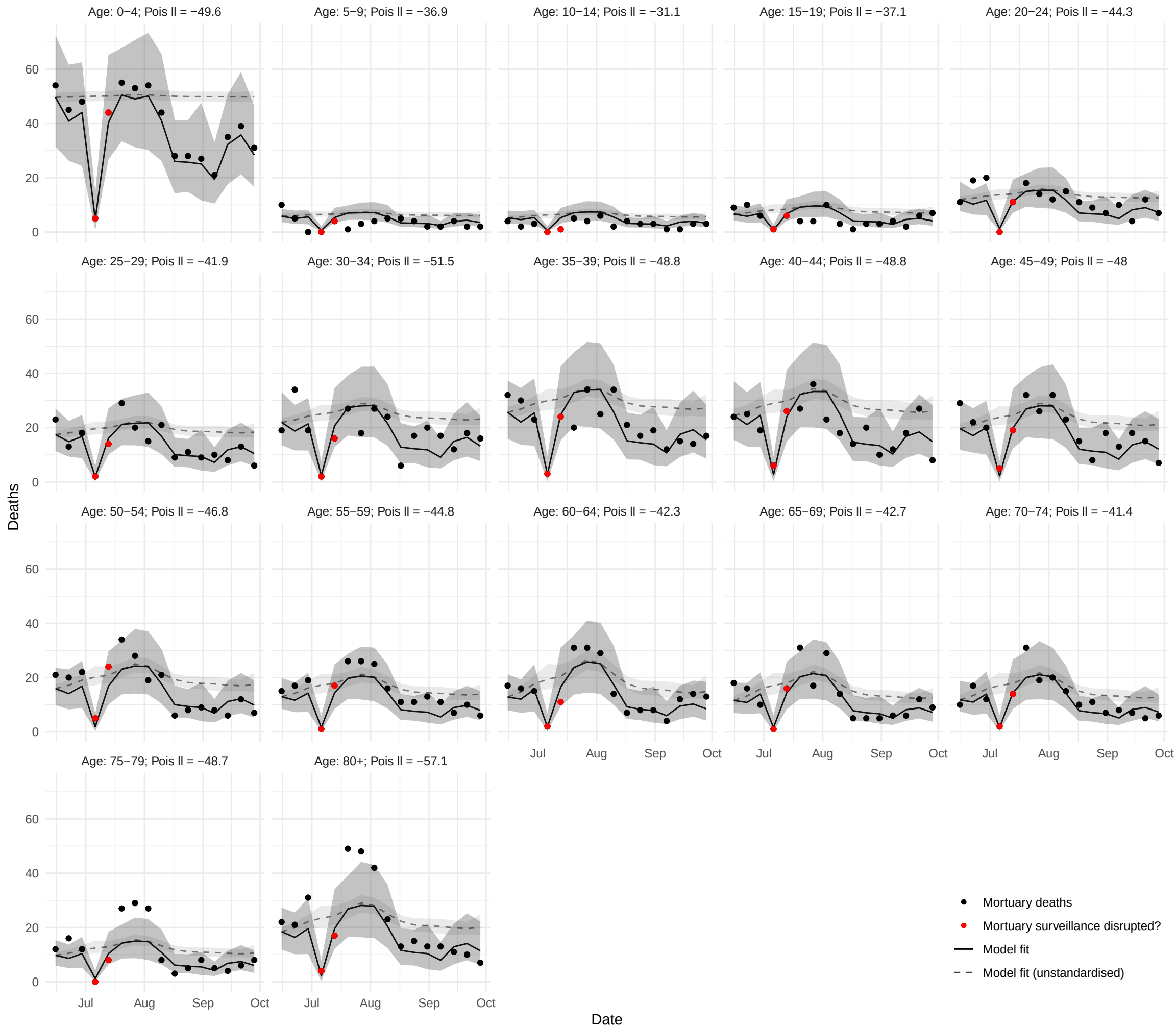


Age: 0−4
Age: 5−9
Age: 10−14
Age: 15−19
Age: 20−24
Age: 25−29
Age: 30−34
Age: 35−39
Age: 40−44
Age: 45−49
Age: 50−54
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia

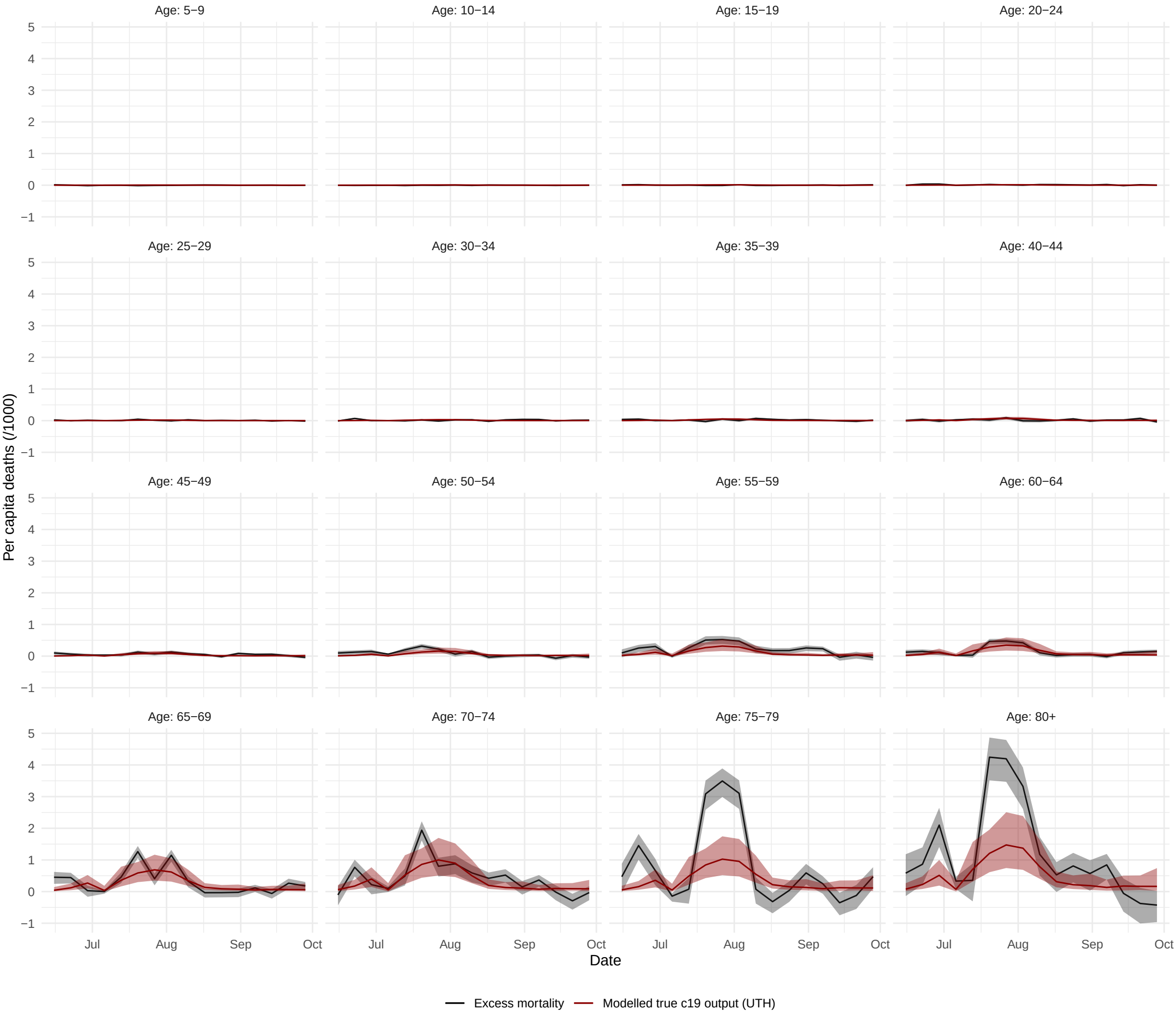


IFR x 0.8, Slope x 0.8
COVID−19 weekly deaths (Mortuary)

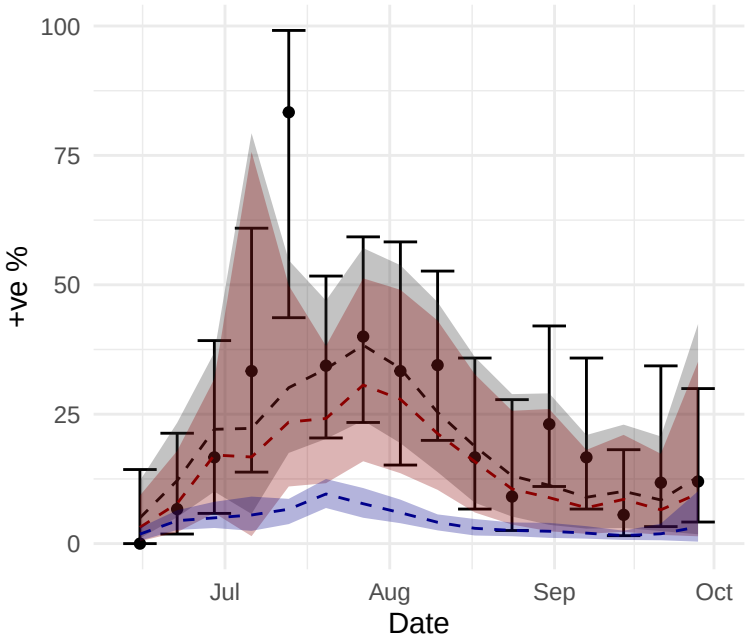


IFR x 0.8, Slope x 0.8

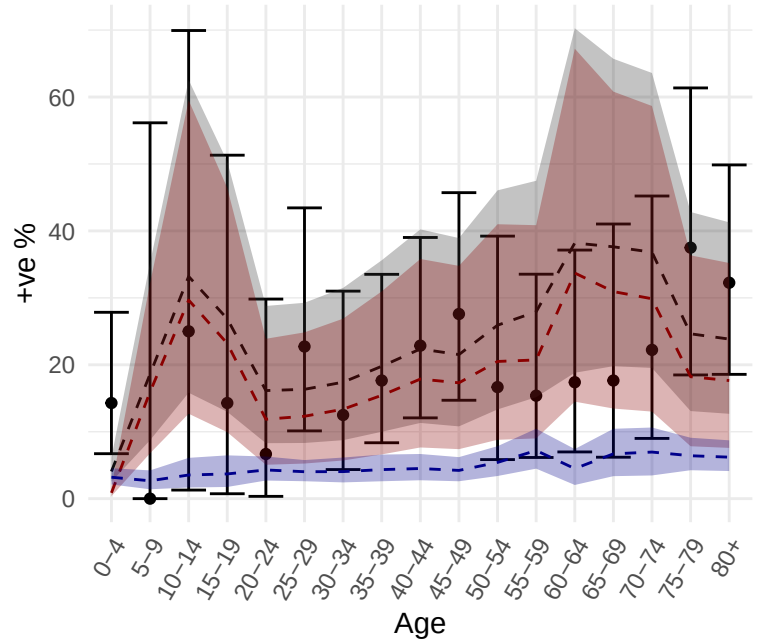
COVID−19 excess mortality: Comparison of MCMC results with squire results



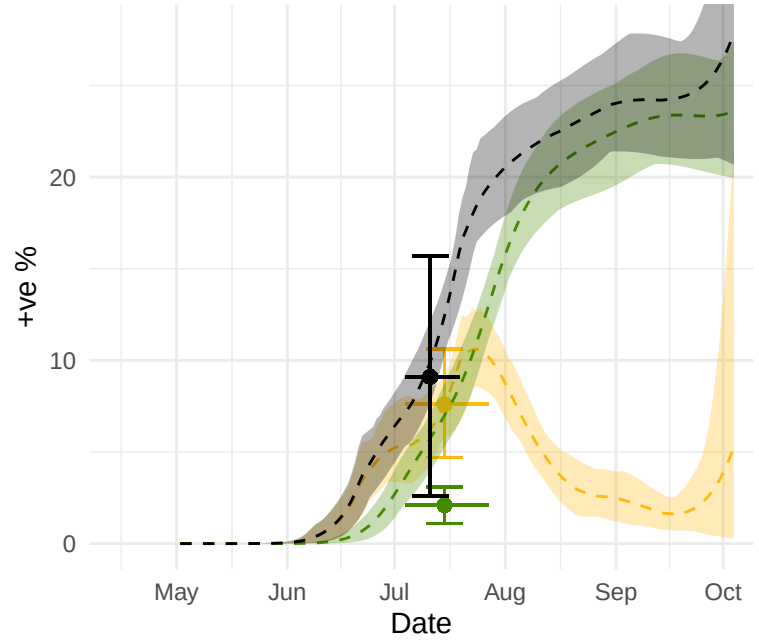
IFR x 1, Slope x 0.8
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

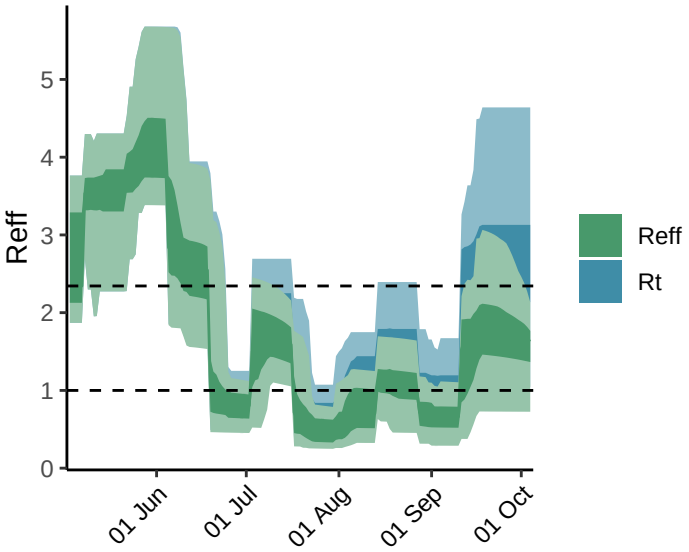


COVID−19 prevalence
Lusaka/Zambia

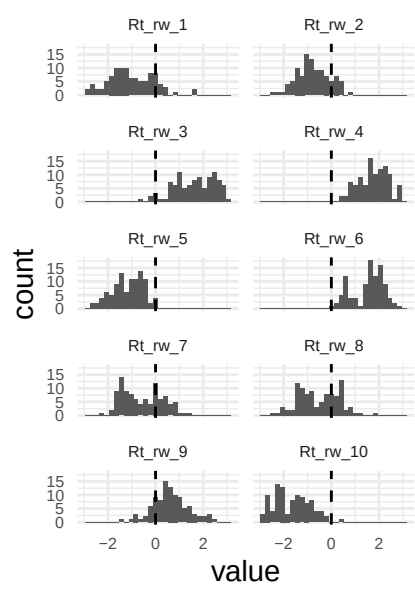


Total +ve deaths
Causal deaths
Coincidental deaths

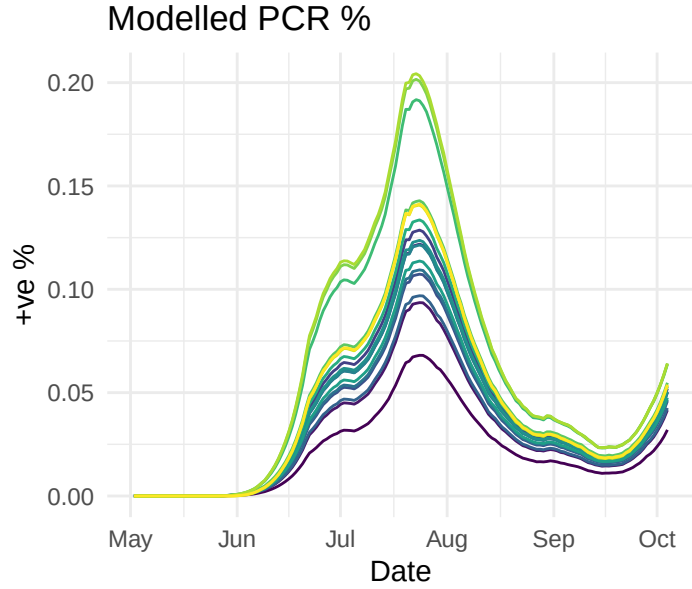
Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)



Reff
Rt

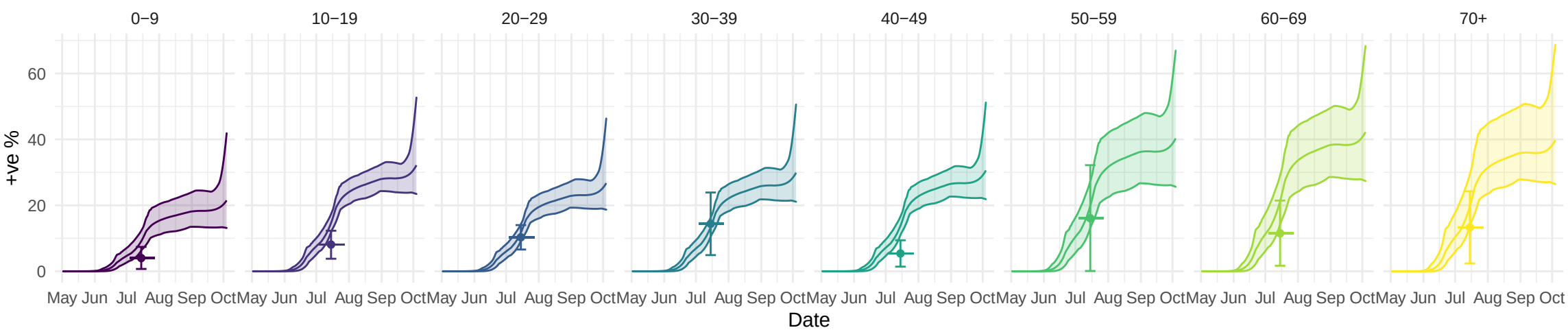


Modelled PCR %



Age: 0−4
Age: 5−9
Age: 10−14
Age: 15−19
Age: 20−24
Age: 25−29
Age: 30−34
Age: 35−39
Age: 40−44
Age: 45−49
Age: 50−54
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



IFR x 1, Slope x 0.8
COVID−19 weekly deaths (Mortuary)

Age: 0−4; Pois ll = −49.6
Age: 5−9; Pois ll = −37
Age: 10−14; Pois ll = −31.3
Age: 15−19; Pois ll = −37.1
Age: 20−24; Pois ll = −44
Age: 25−29; Pois ll = −41.8
Age: 30−34; Pois ll = −51.4
Age: 35−39; Pois ll = −48.8
Age: 40−44; Pois ll = −48.8
Age: 45−49; Pois ll = −47.9
Age: 50−54; Pois ll = −46.2
Age: 55−59; Pois ll = −44.1
Age: 60−64; Pois ll = −41.9
Age: 65−69; Pois ll = −42.3
Age: 70−74; Pois ll = −41
Age: 75−79; Pois ll = −48.2
Age: 80+; Pois ll = −56.4

Deaths

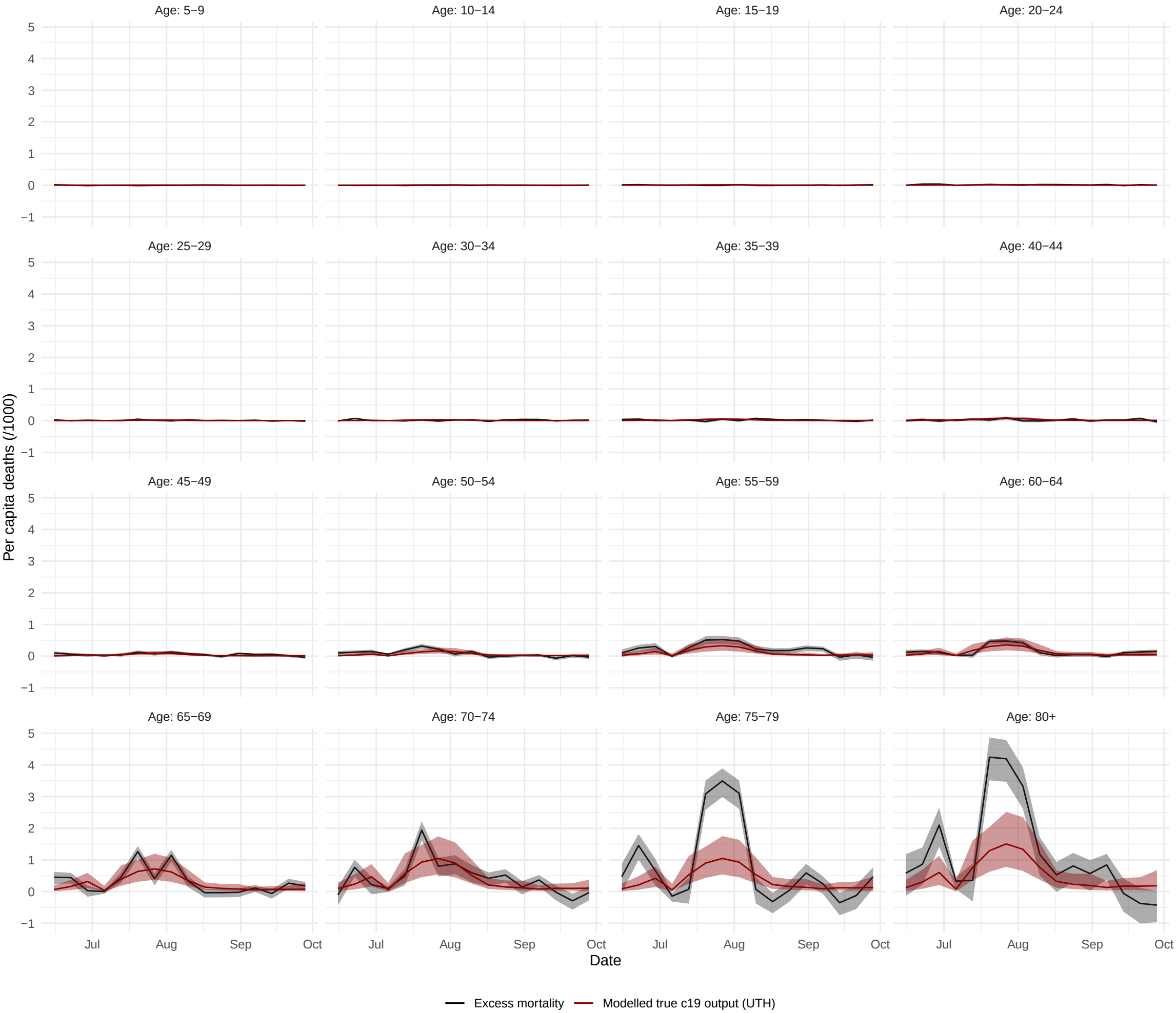
0
20
40
60

Jul
Aug
Sep
Oct

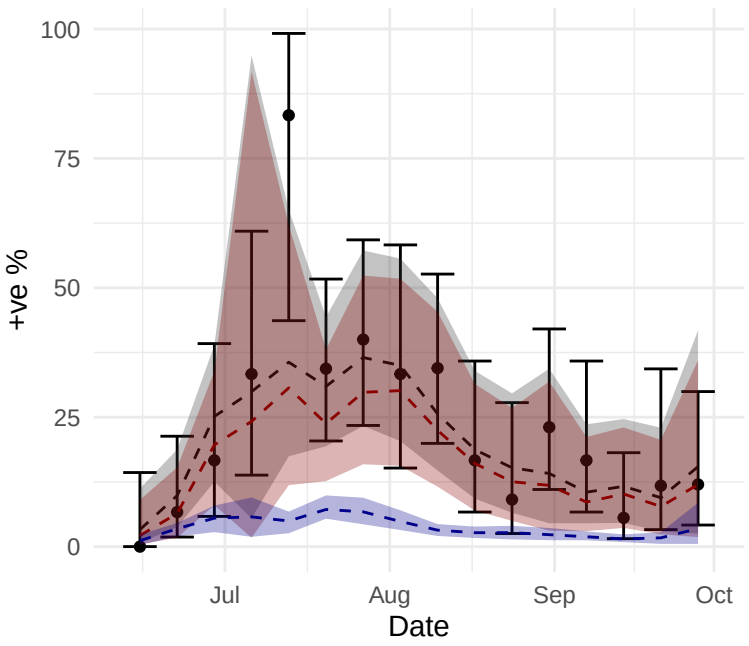
Date

Mortuary deaths
Mortuary surveillance disrupted?
Model fit
Model fit (unstandardised)

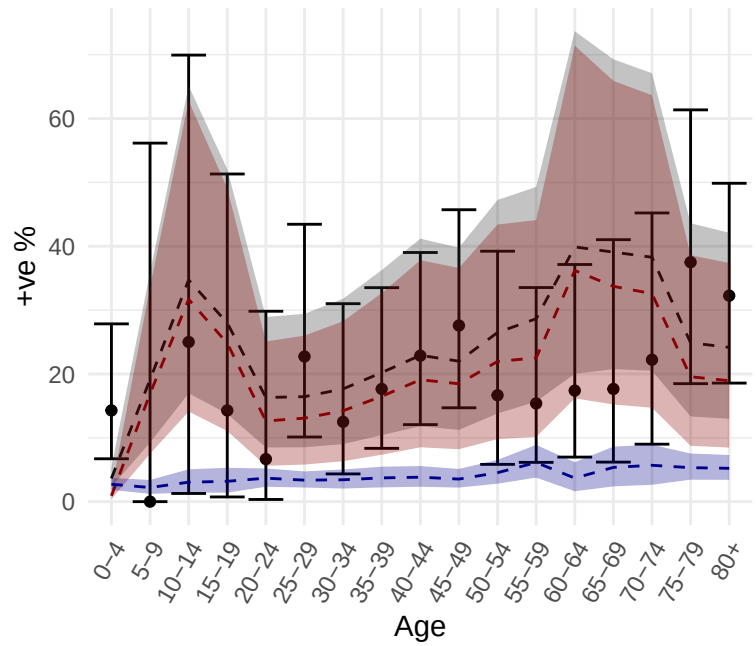
IFR x 1, Slope x 0.8
COVID−19 excess mortality: Comparison of MCMC results with squire results



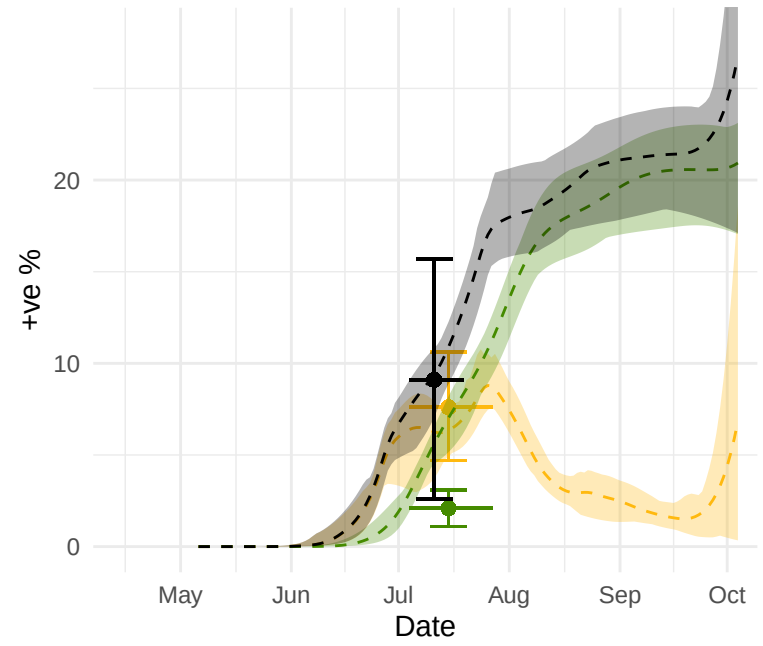
IFR x 1.25, Slope x 0.8
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

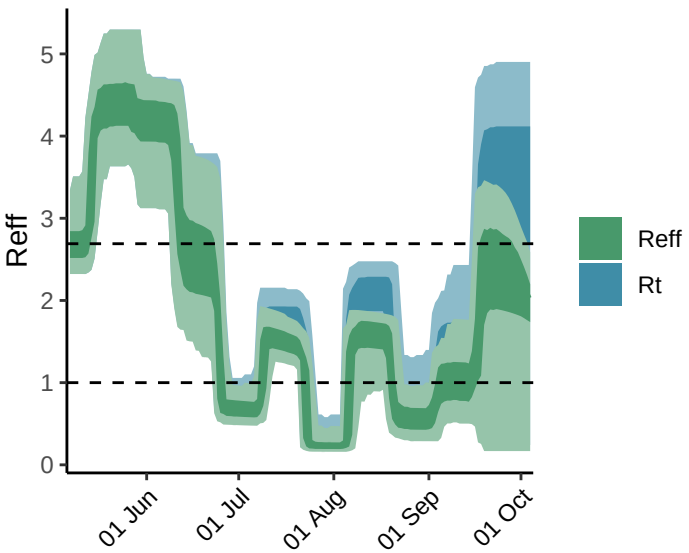


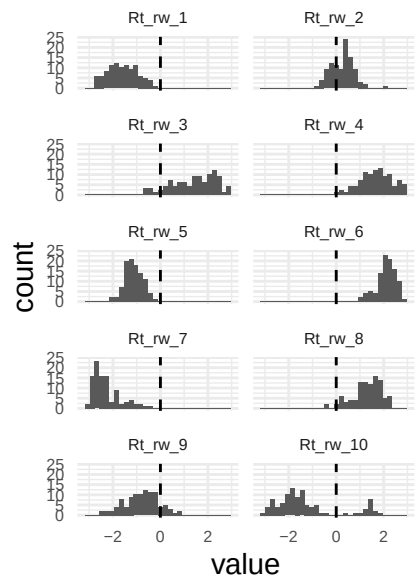
COVID−19 prevalence
Lusaka/Zambia



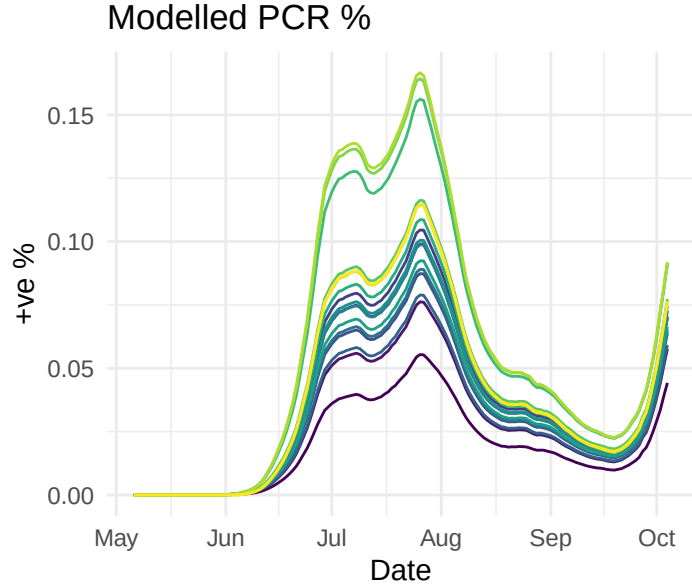
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)



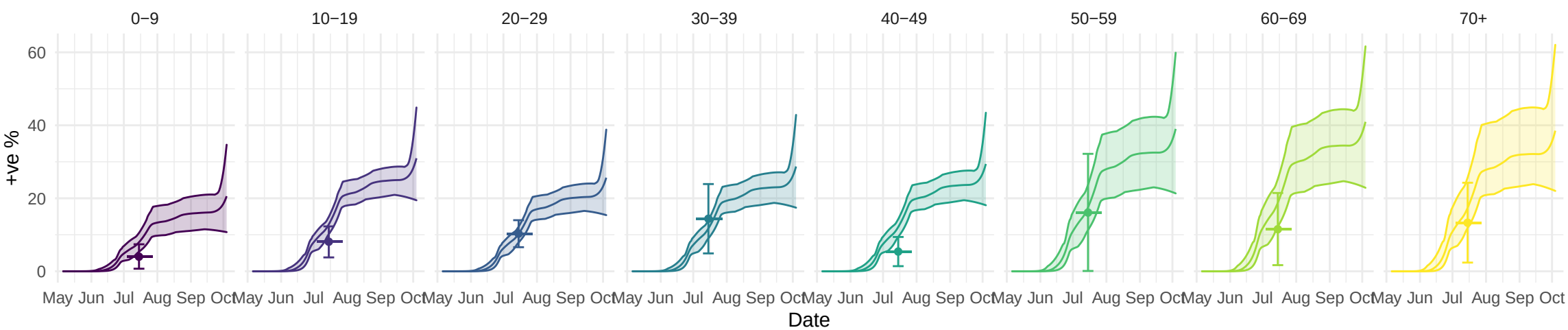


Modelled PCR %

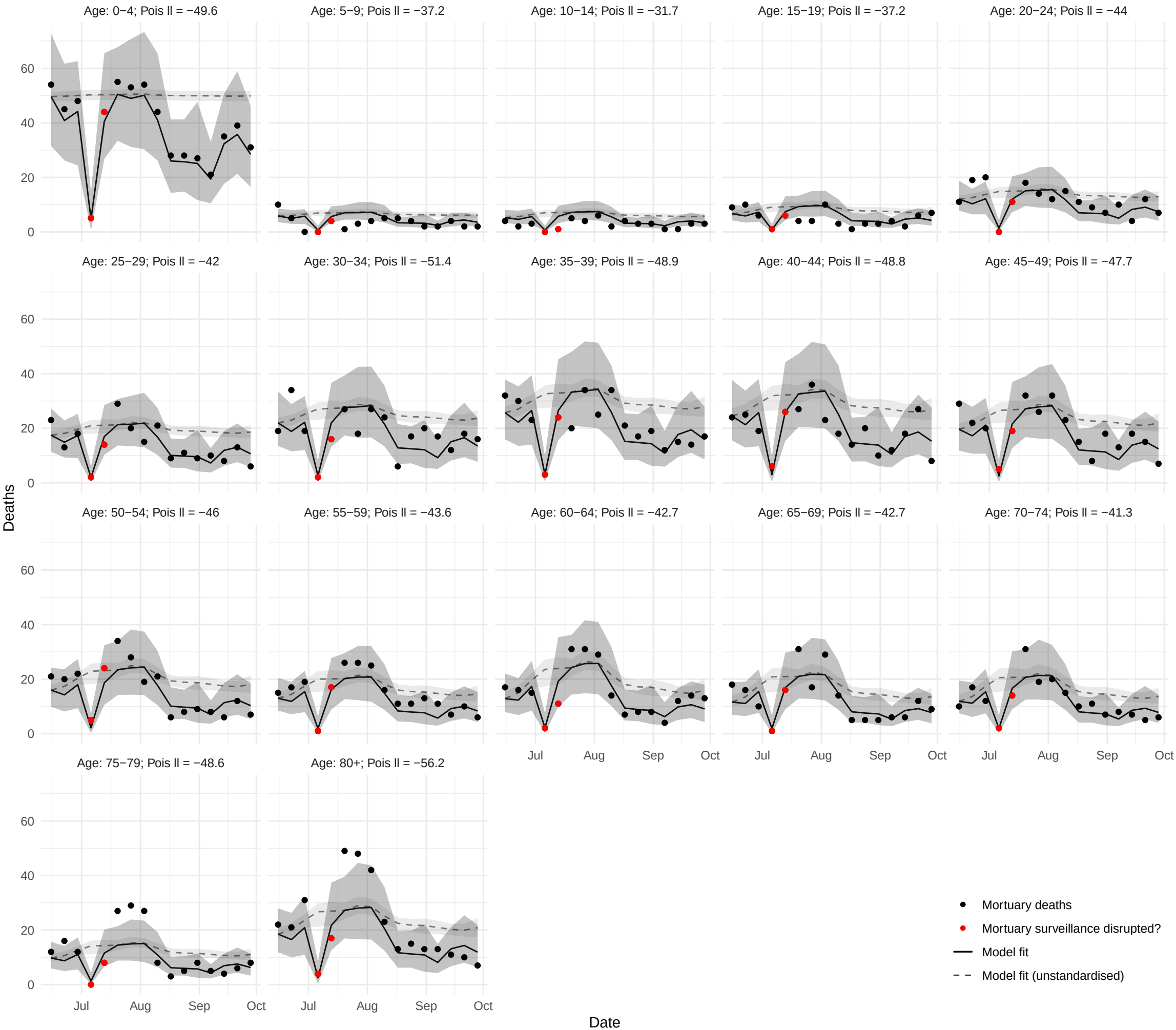


Age: 0−4
Age: 5−9
Age: 10−14
Age: 15−19
Age: 20−24
Age: 25−29
Age: 30−34
Age: 35−39
Age: 40−44
Age: 45−49
Age: 50−54
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



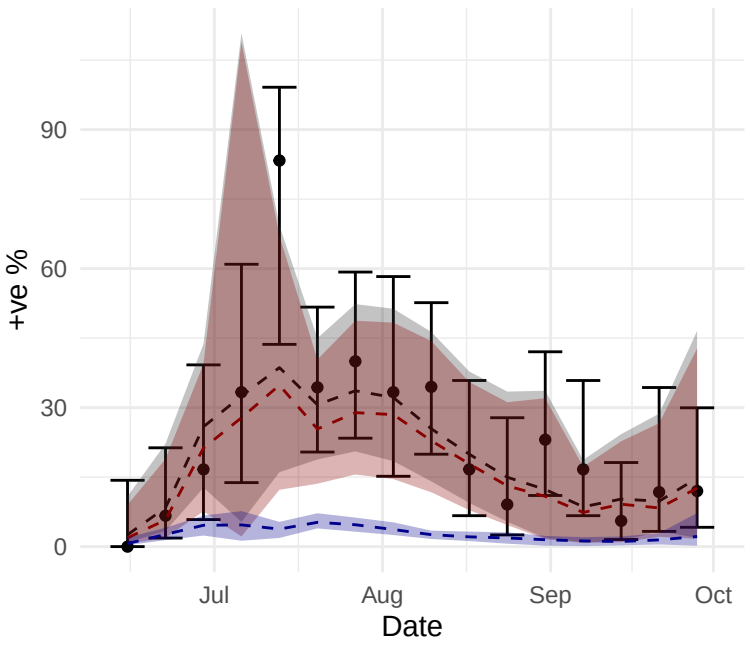
IFR x 1.25, Slope x 0.8
COVID−19 weekly deaths (Mortuary)



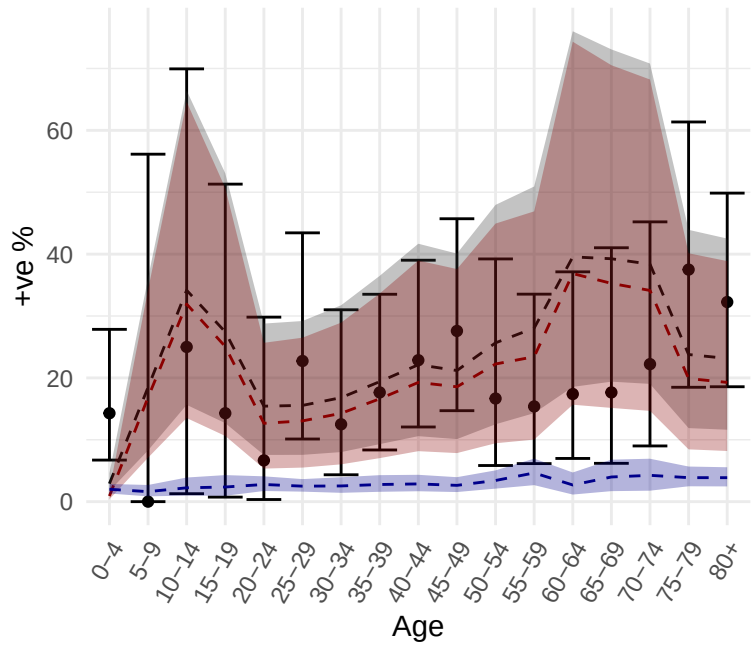
IFR x 1.25, Slope x 0.8

COVID−19 excess mortality: Comparison of MCMC results with squire results

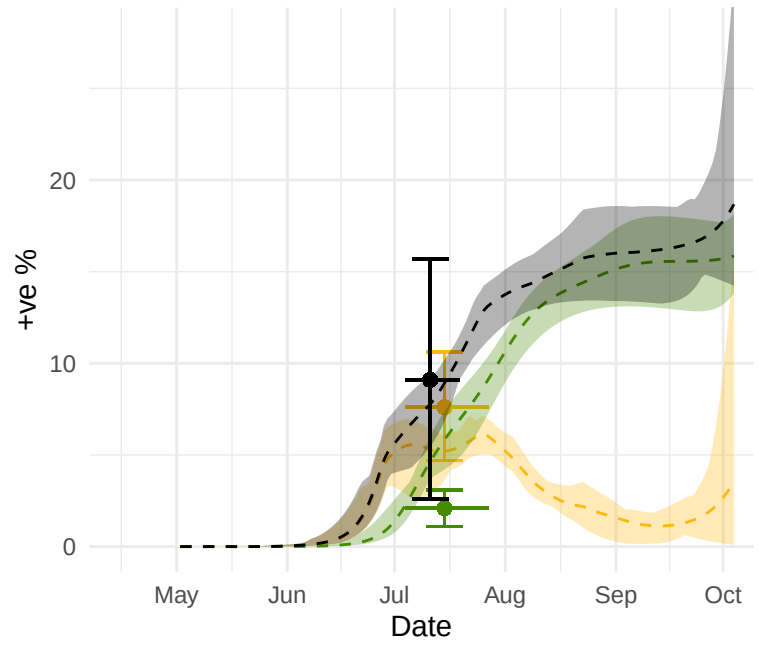
IFR x 1.67, Slope x 0.8
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

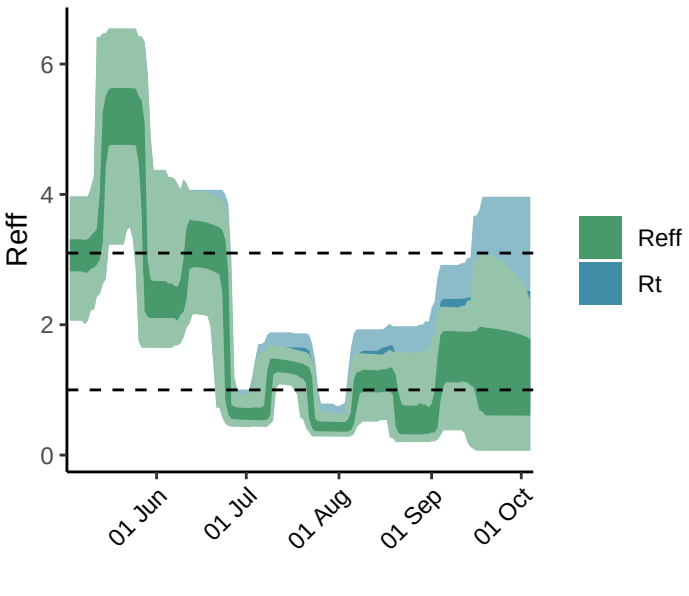


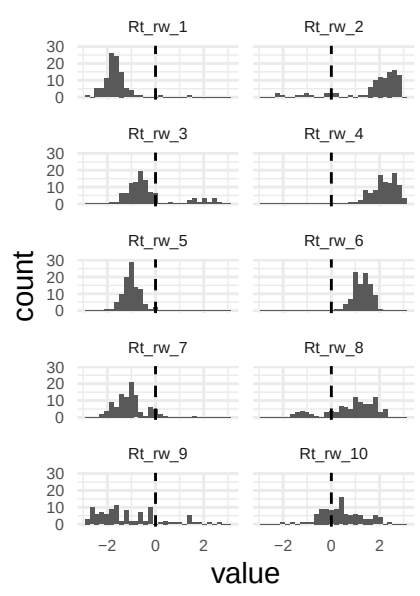
COVID−19 prevalence
Lusaka/Zambia



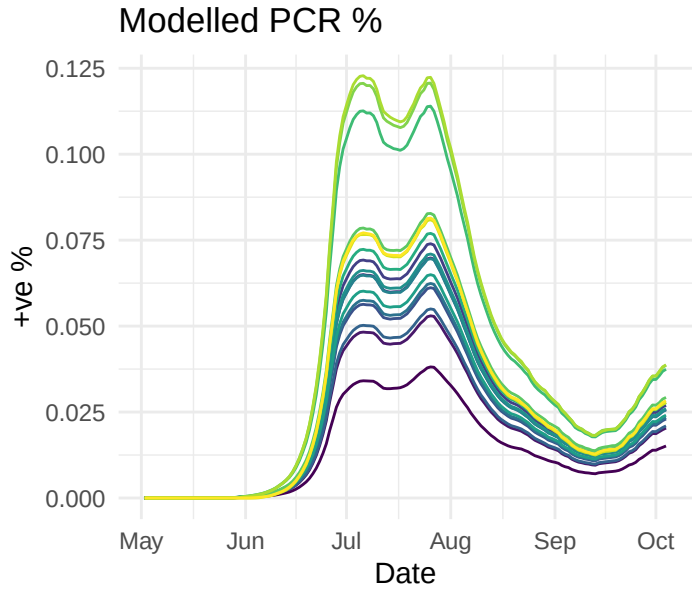
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)



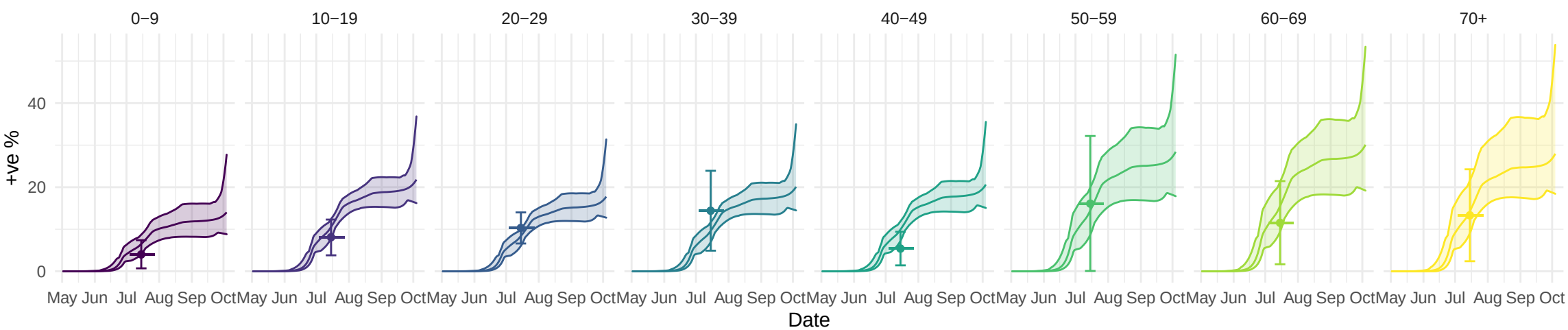


Modelled PCR %



Age: 0−4
Age: 5−9
Age: 10−14
Age: 15−19
Age: 20−24
Age: 25−29
Age: 30−34
Age: 35−39
Age: 40−44
Age: 45−49
Age: 50−54
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



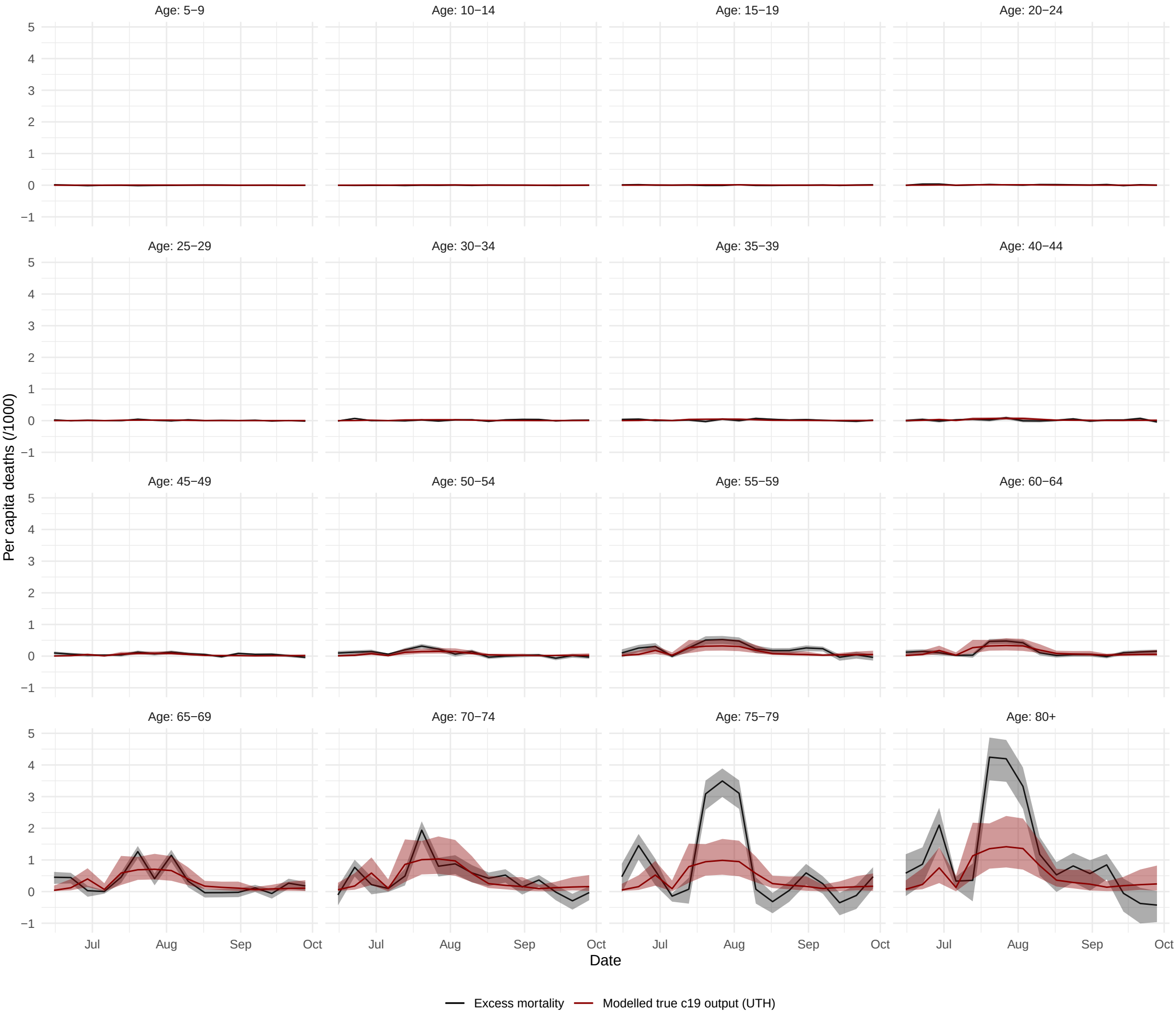
IFR x 1.67, Slope x 0.8
COVID−19 weekly deaths (Mortuary)

Age: 0−4; Pois ll = −49.6
Age: 5−9; Pois ll = −37.2
Age: 10−14; Pois ll = −31.8
Age: 15−19; Pois ll = −37.4
Age: 20−24; Pois ll = −43.9
Age: 25−29; Pois ll = −41.9
Age: 30−34; Pois ll = −51.7
Age: 35−39; Pois ll = −49
Age: 40−44; Pois ll = −48.8
Age: 45−49; Pois ll = −48
Age: 50−54; Pois ll = −45.6
Age: 55−59; Pois ll = −43.6
Age: 60−64; Pois ll = −43.2
Age: 65−69; Pois ll = −43
Age: 70−74; Pois ll = −41.3
Age: 75−79; Pois ll = −49
Age: 80+; Pois ll = −56.3

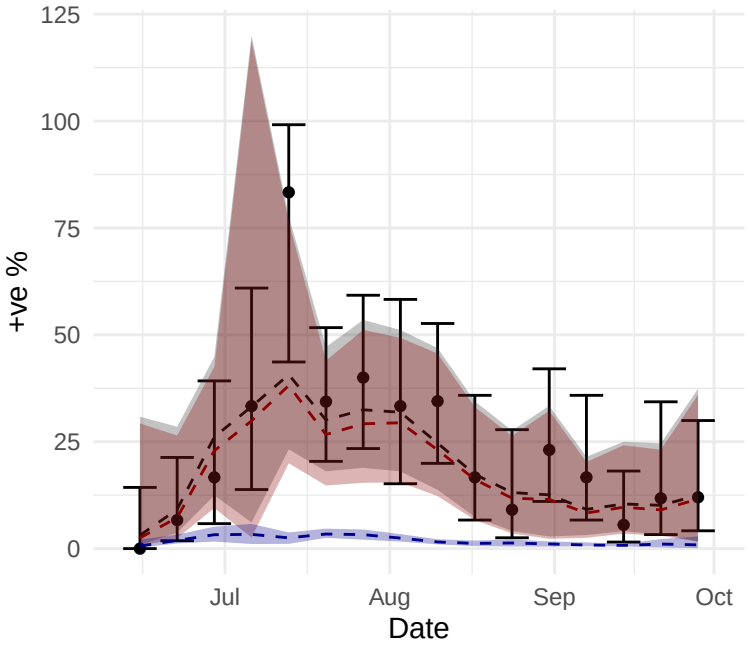
Deaths
0
20
40
60
Jul
Aug
Sep
Oct
Date

Mortuary deaths
Mortuary surveillance disrupted?
Model fit
Model fit (unstandardised)

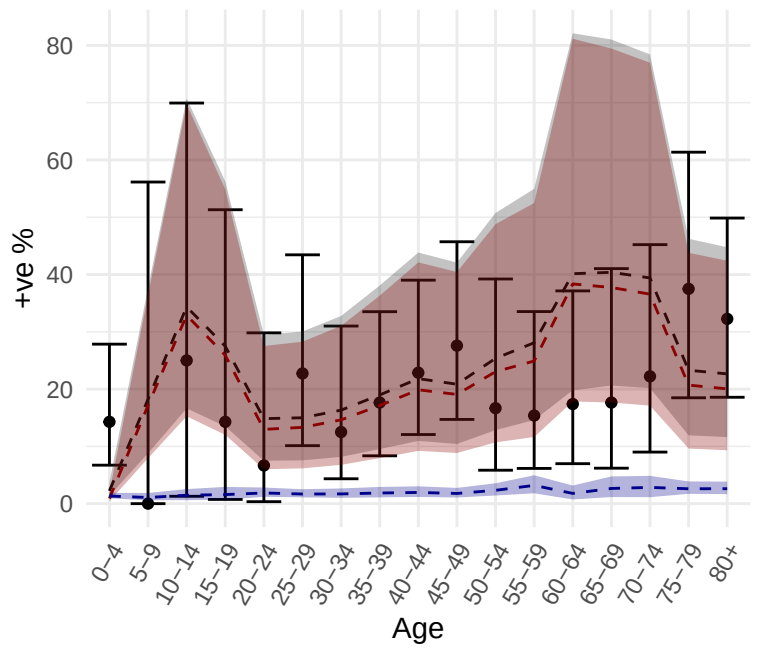
IFR x 1.67, Slope x 0.8
COVID−19 excess mortality: Comparison of MCMC results with squire results



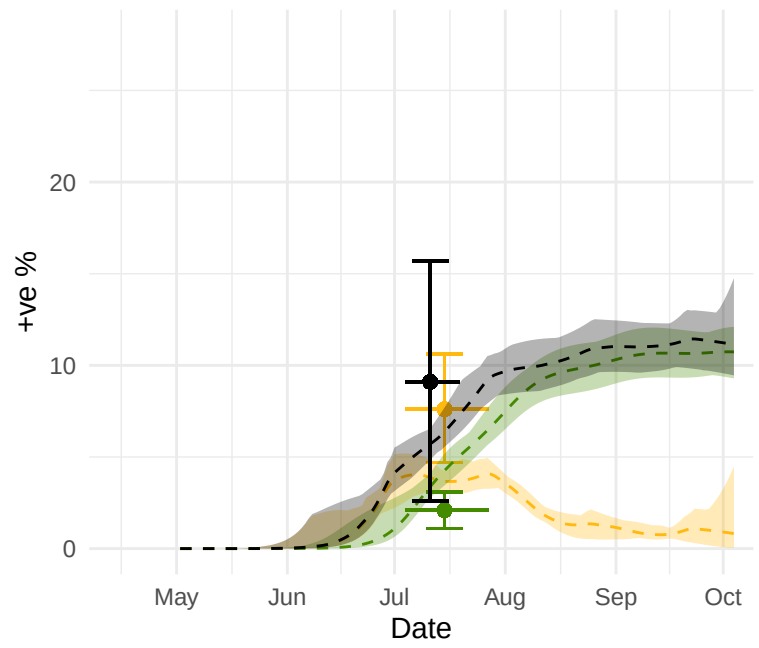
IFR x 2.5, Slope x 0.8
COVID−19 weekly prevalence
UTH mortuary

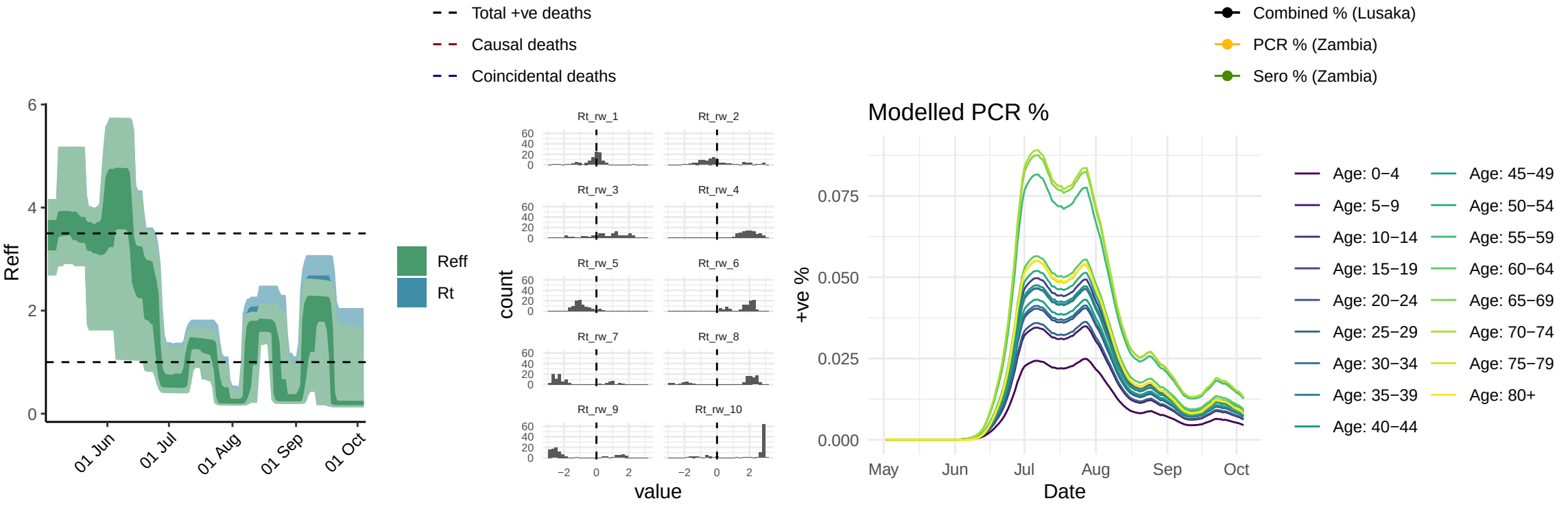


COVID−19 prevalence by age
UTH mortuary

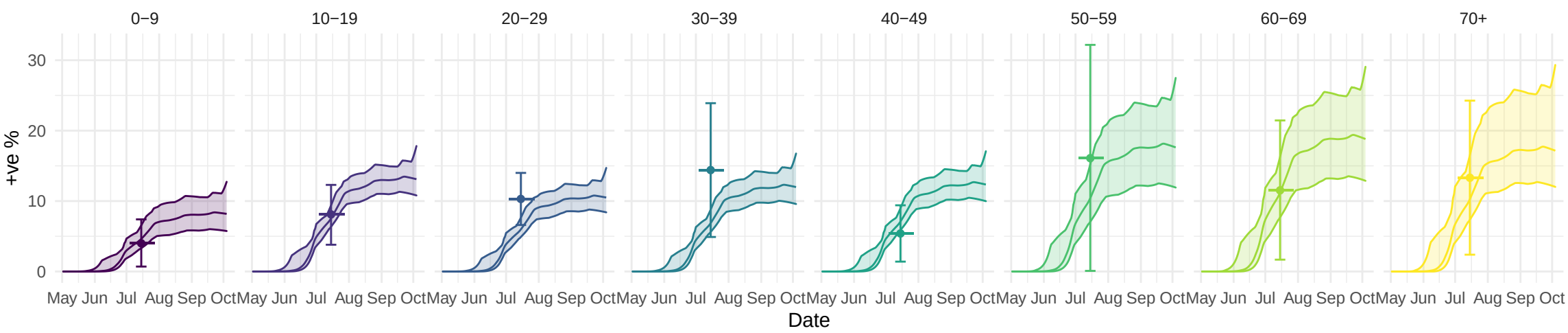


COVID−19 prevalence
Lusaka/Zambia





Modelled combined prevalence, Lusaka/Zambia



IFR x 2.5, Slope x 0.8
COVID−19 weekly deaths (Mortuary)

Age: 0−4; Pois ll = −49.6
Age: 5−9; Pois ll = −37.3
Age: 10−14; Pois ll = −32.1
Age: 15−19; Pois ll = −37.3
Age: 20−24; Pois ll = −43.8
Age: 25−29; Pois ll = −41.9
Age: 30−34; Pois ll = −51.6
Age: 35−39; Pois ll = −49.2
Age: 40−44; Pois ll = −48.9
Age: 45−49; Pois ll = −47.7
Age: 50−54; Pois ll = −45.1
Age: 55−59; Pois ll = −43.2
Age: 60−64; Pois ll = −43.3
Age: 65−69; Pois ll = −42.7
Age: 70−74; Pois ll = −41.4
Age: 75−79; Pois ll = −48.6
Age: 80+; Pois ll = −55.8

Deaths
0
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Mortuary deaths
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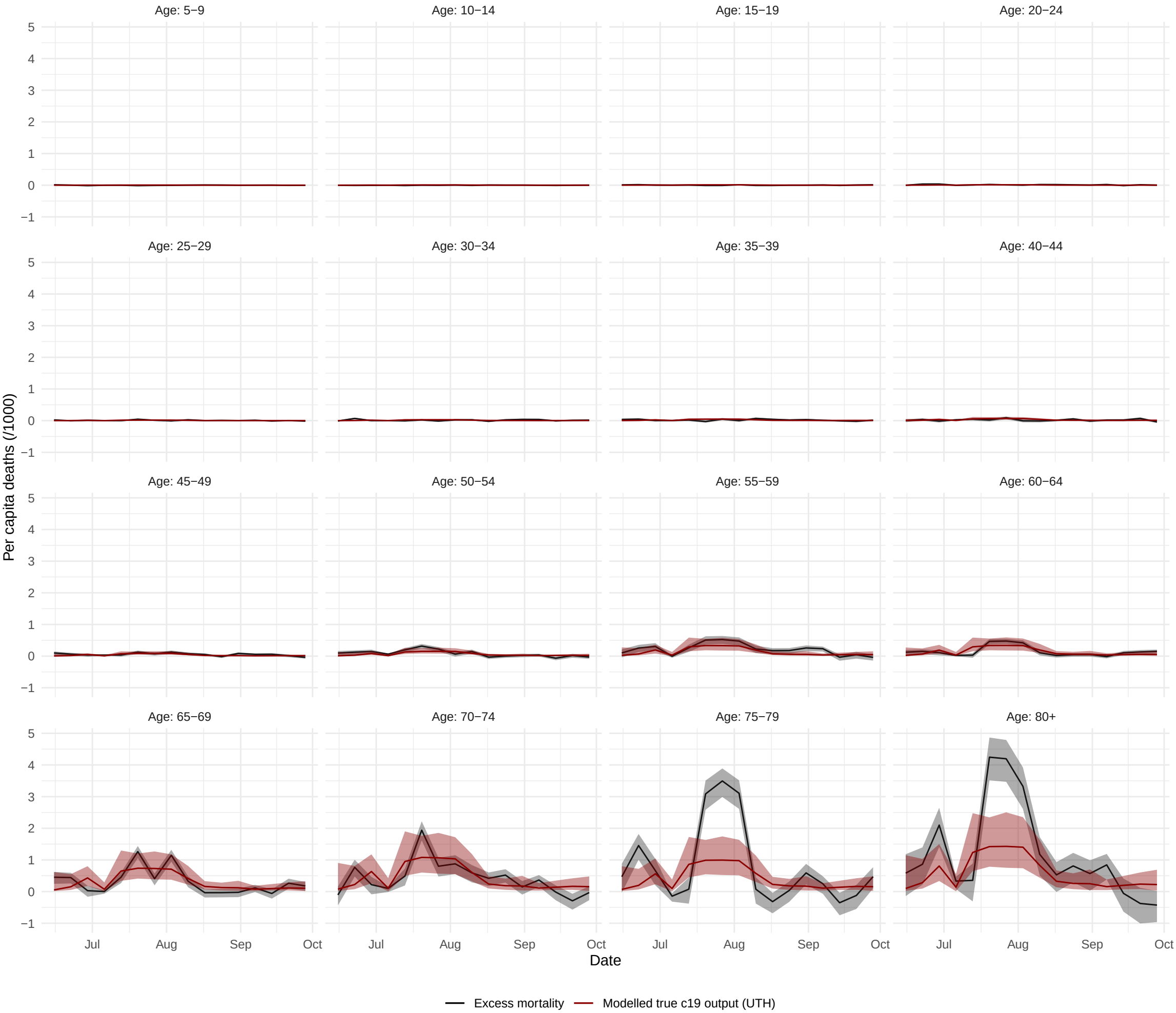
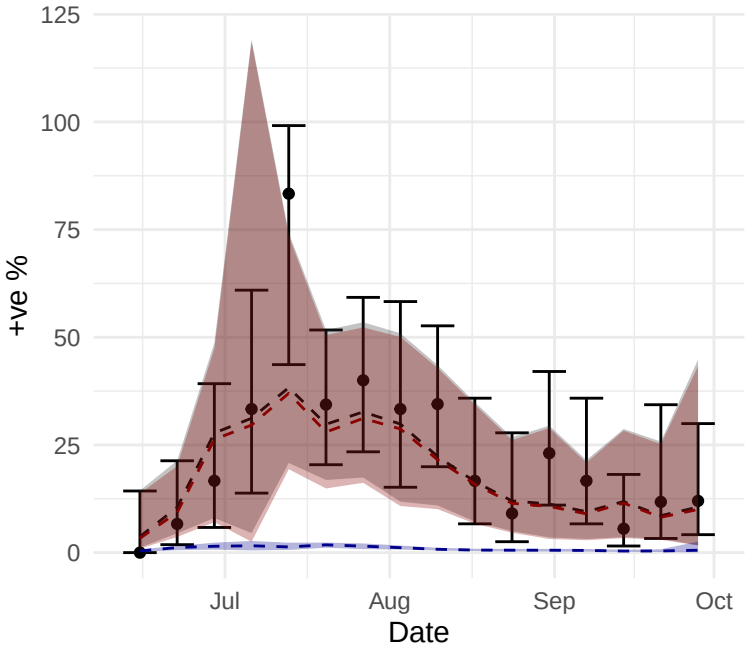
Model fit
Model fit (unstandardised)

IFR x 2.5, Slope x 0.8

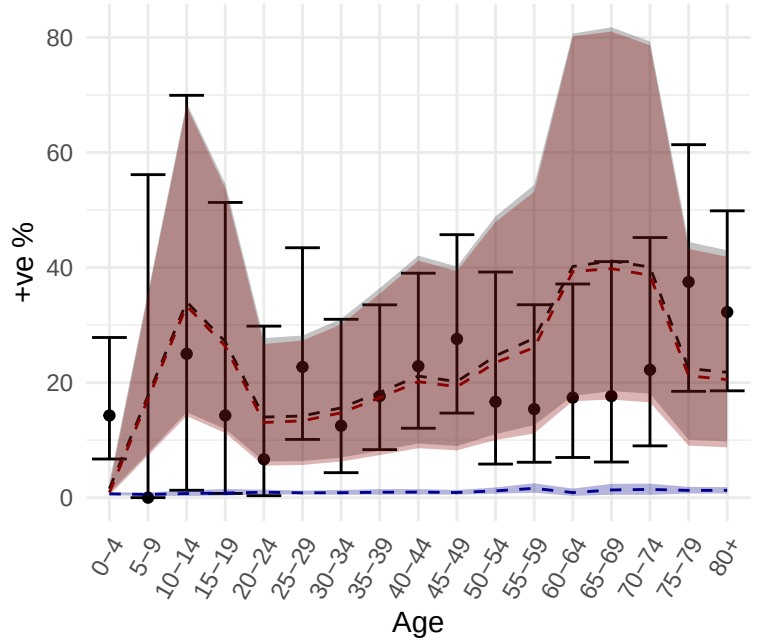
COVID−19 excess mortality: Comparison of MCMC results with squire results



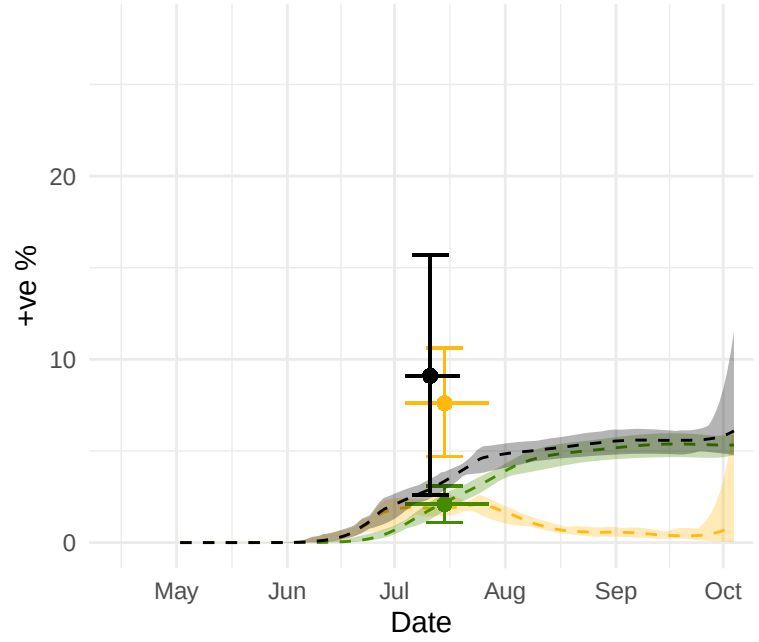
IFR x 5, Slope x 0.8
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

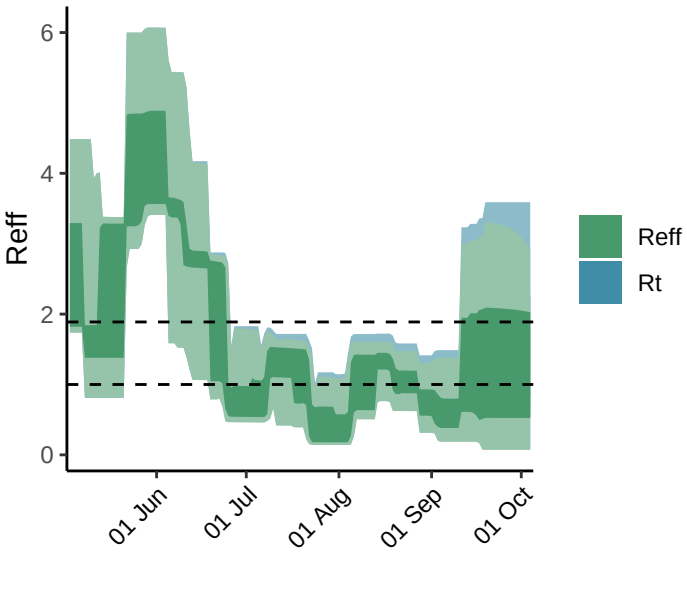


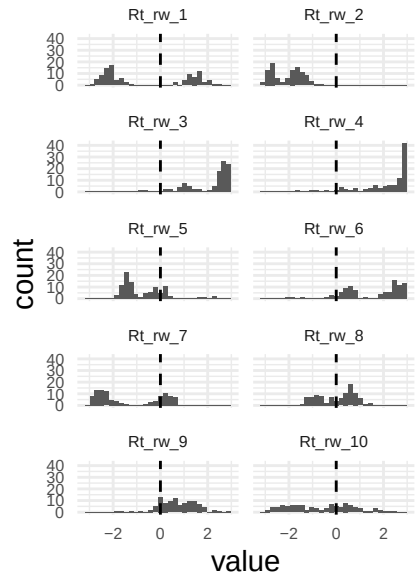
COVID−19 prevalence
Lusaka/Zambia



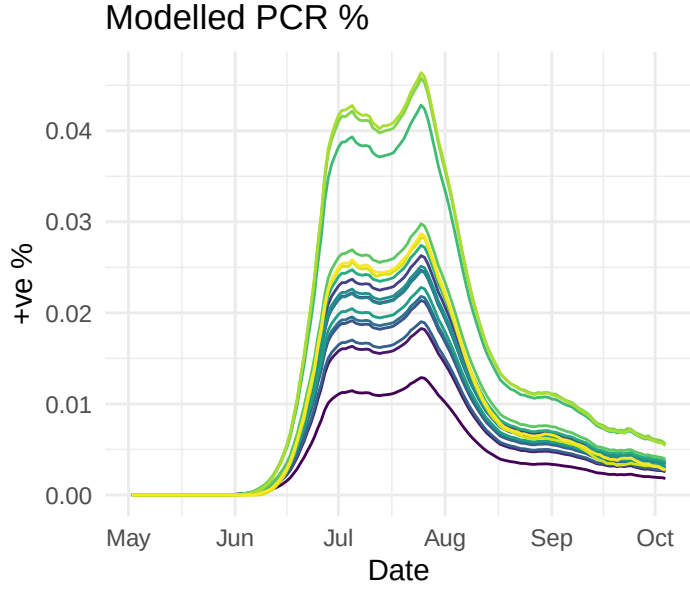
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)



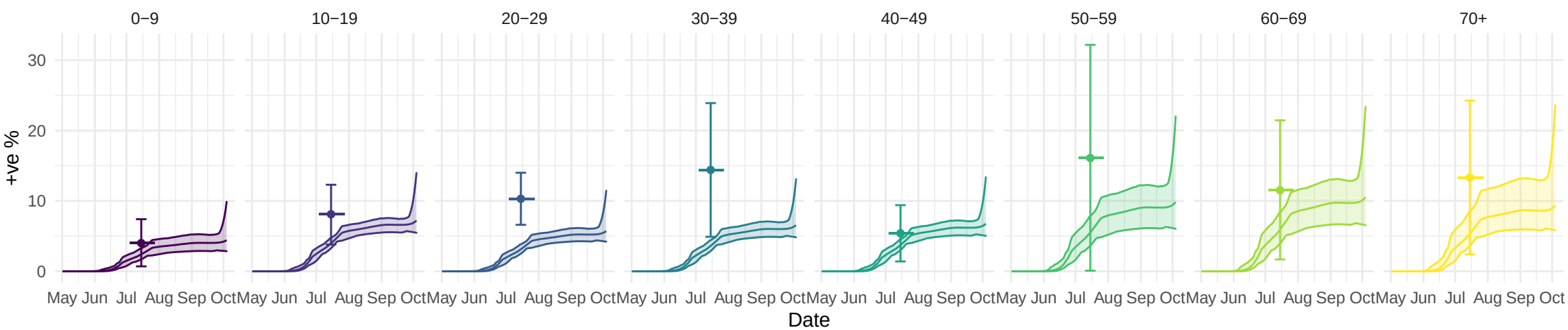


Modelled PCR %



Age: 0−4
Age: 5−9
Age: 10−14
Age: 15−19
Age: 20−24
Age: 25−29
Age: 30−34
Age: 35−39
Age: 40−44
Age: 45−49
Age: 50−54
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



IFR x 5, Slope x 0.8
COVID−19 weekly deaths (Mortuary)

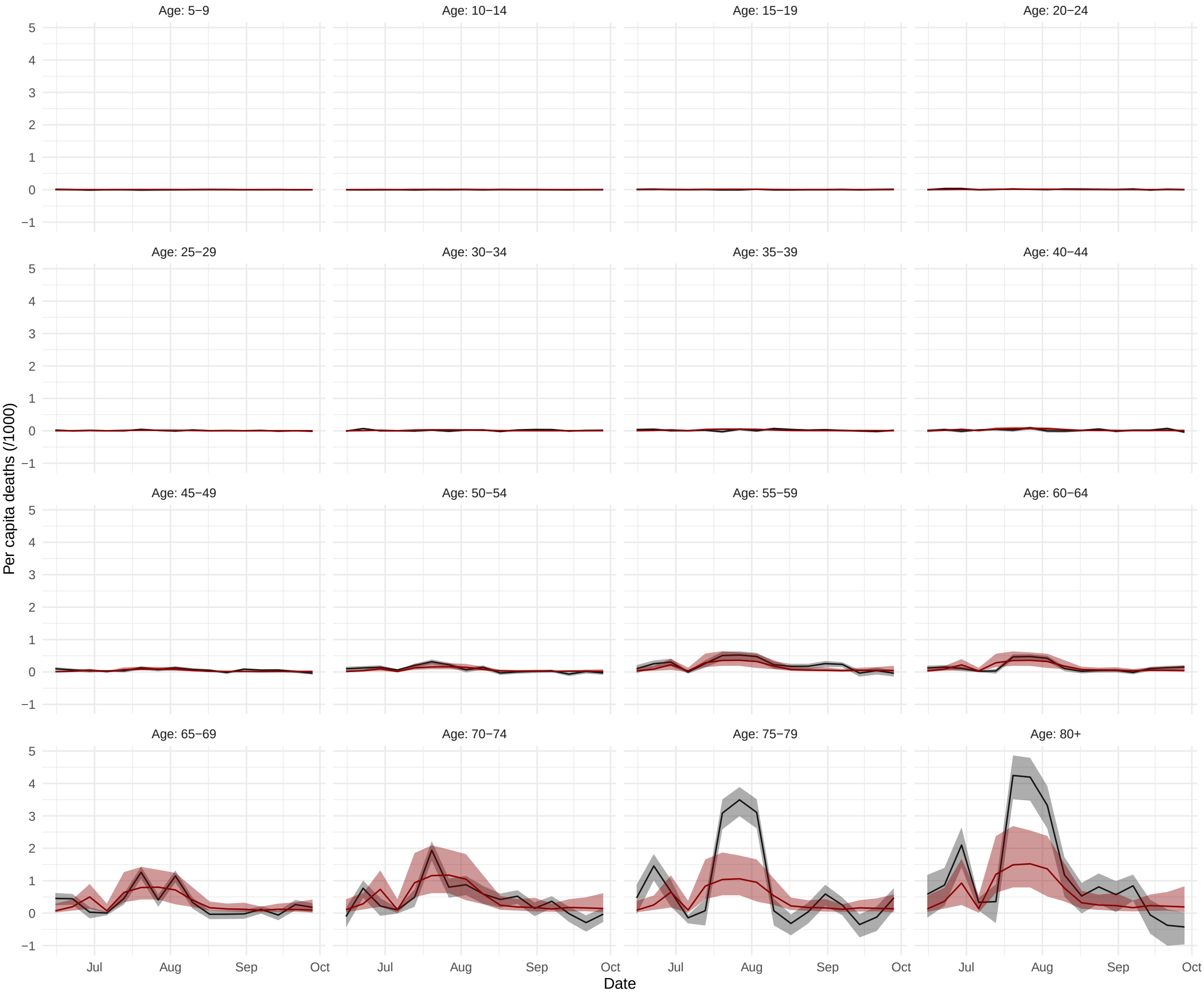
Age: 0−4; Pois ll = −49.6
Age: 5−9; Pois ll = −37.4
Age: 10−14; Pois ll = −32.2
Age: 15−19; Pois ll = −37.4
Age: 20−24; Pois ll = −43.7
Age: 25−29; Pois ll = −41.8
Age: 30−34; Pois ll = −51.7
Age: 35−39; Pois ll = −49.3
Age: 40−44; Pois ll = −48.8
Age: 45−49; Pois ll = −47.6
Age: 50−54; Pois ll = −44.7
Age: 55−59; Pois ll = −42.7
Age: 60−64; Pois ll = −43
Age: 65−69; Pois ll = −42.7
Age: 70−74; Pois ll = −41.2
Age: 75−79; Pois ll = −48
Age: 80+; Pois ll = −54.8

Deaths
0
20
40
60
Jul
Aug
Sep
Oct
Date

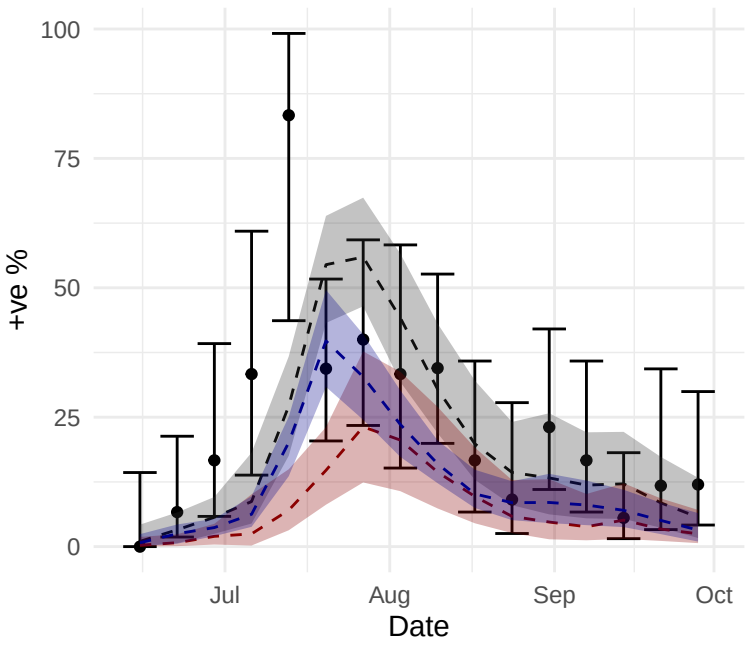
Mortuary deaths
Mortuary surveillance disrupted?
Model fit
Model fit (unstandardised)

IFR x 5, Slope x 0.8

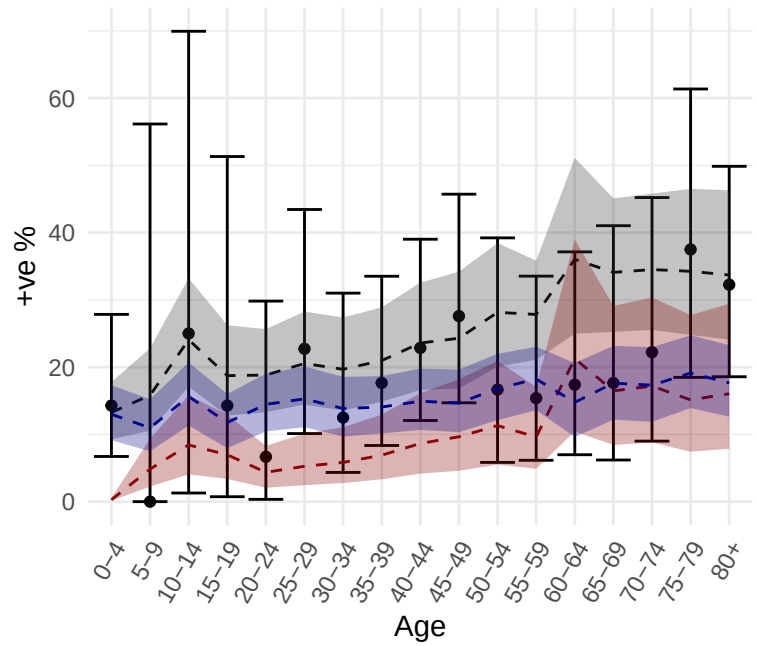
COVID−19 excess mortality: Comparison of MCMC results with squire results



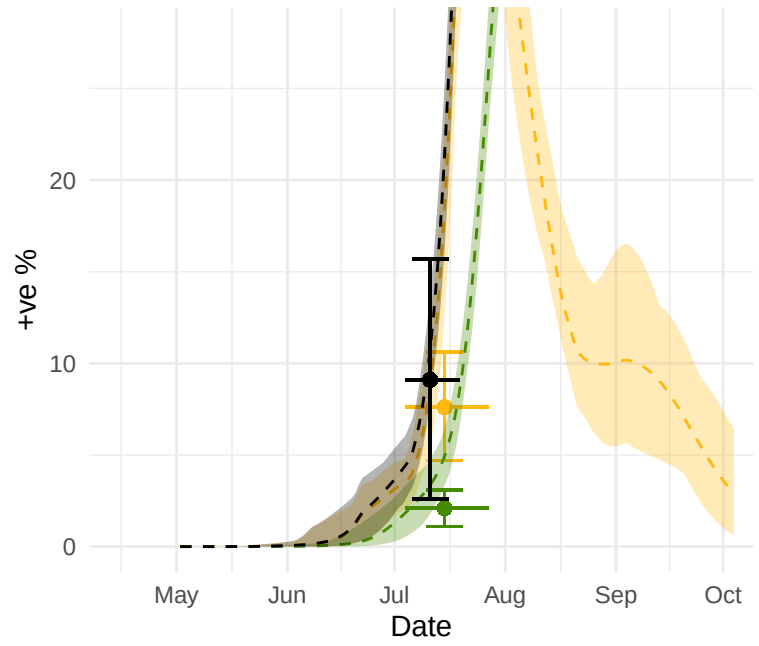
IFR x 0.2, Slope x 1
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

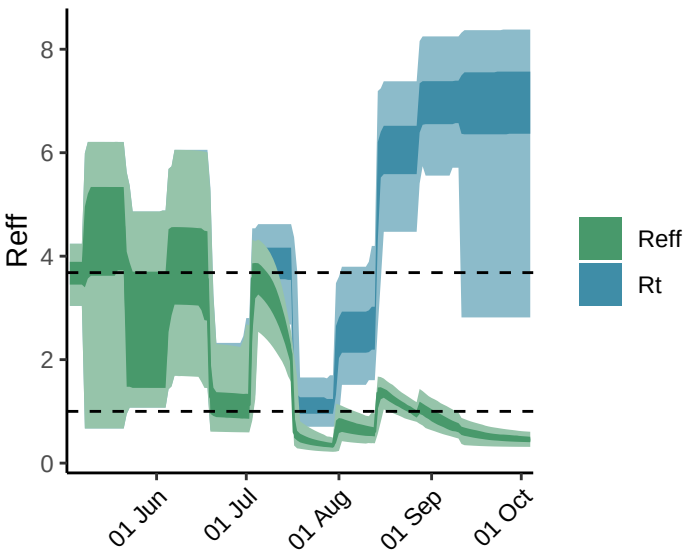


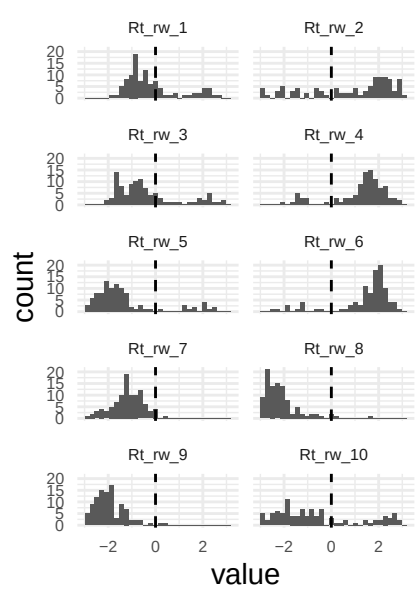
COVID−19 prevalence
Lusaka/Zambia



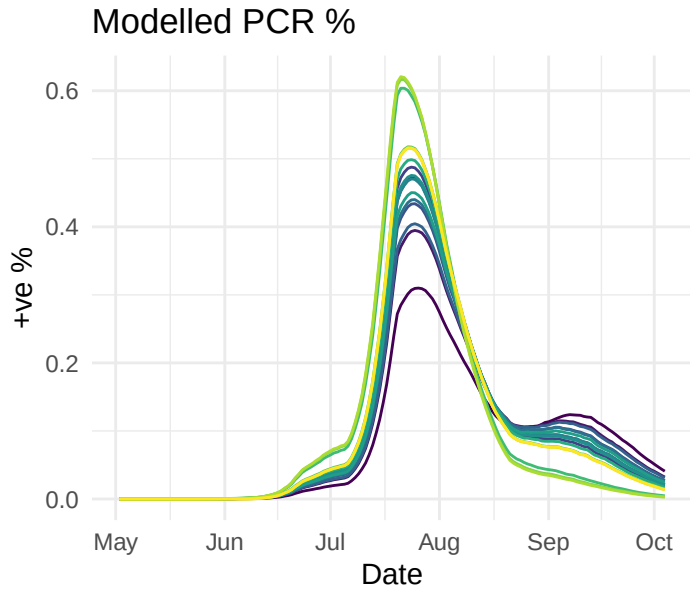
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)



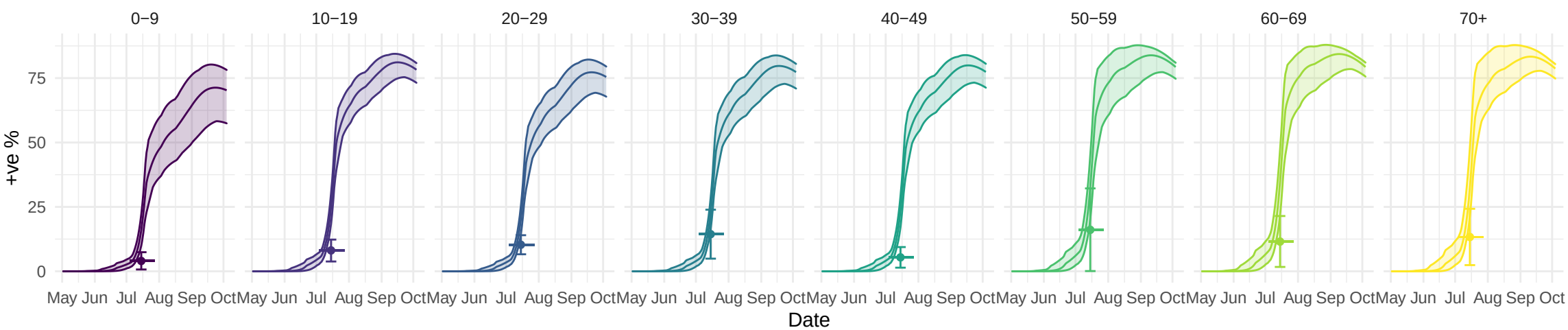


Modelled PCR %



Age: 0−4
Age: 5−9
Age: 10−14
Age: 15−19
Age: 20−24
Age: 25−29
Age: 30−34
Age: 35−39
Age: 40−44
Age: 45−49
Age: 50−54
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



IFR x 0.2, Slope x 1
COVID−19 weekly deaths (Mortuary)

Age: 0−4; Pois ll = −49.8
Age: 5−9; Pois ll = −34.9
Age: 10−14; Pois ll = −28.4
Age: 15−19; Pois ll = −35.4
Age: 20−24; Pois ll = −46.3
Age: 25−29; Pois ll = −42.4
Age: 30−34; Pois ll = −51.7
Age: 35−39; Pois ll = −49.2
Age: 40−44; Pois ll = −48.7
Age: 45−49; Pois ll = −50.4
Age: 50−54; Pois ll = −51.1
Age: 55−59; Pois ll = −50.8
Age: 60−64; Pois ll = −44.8
Age: 65−69; Pois ll = −45.7
Age: 70−74; Pois ll = −44
Age: 75−79; Pois ll = −48.6
Age: 80+; Pois ll = −57

Deaths
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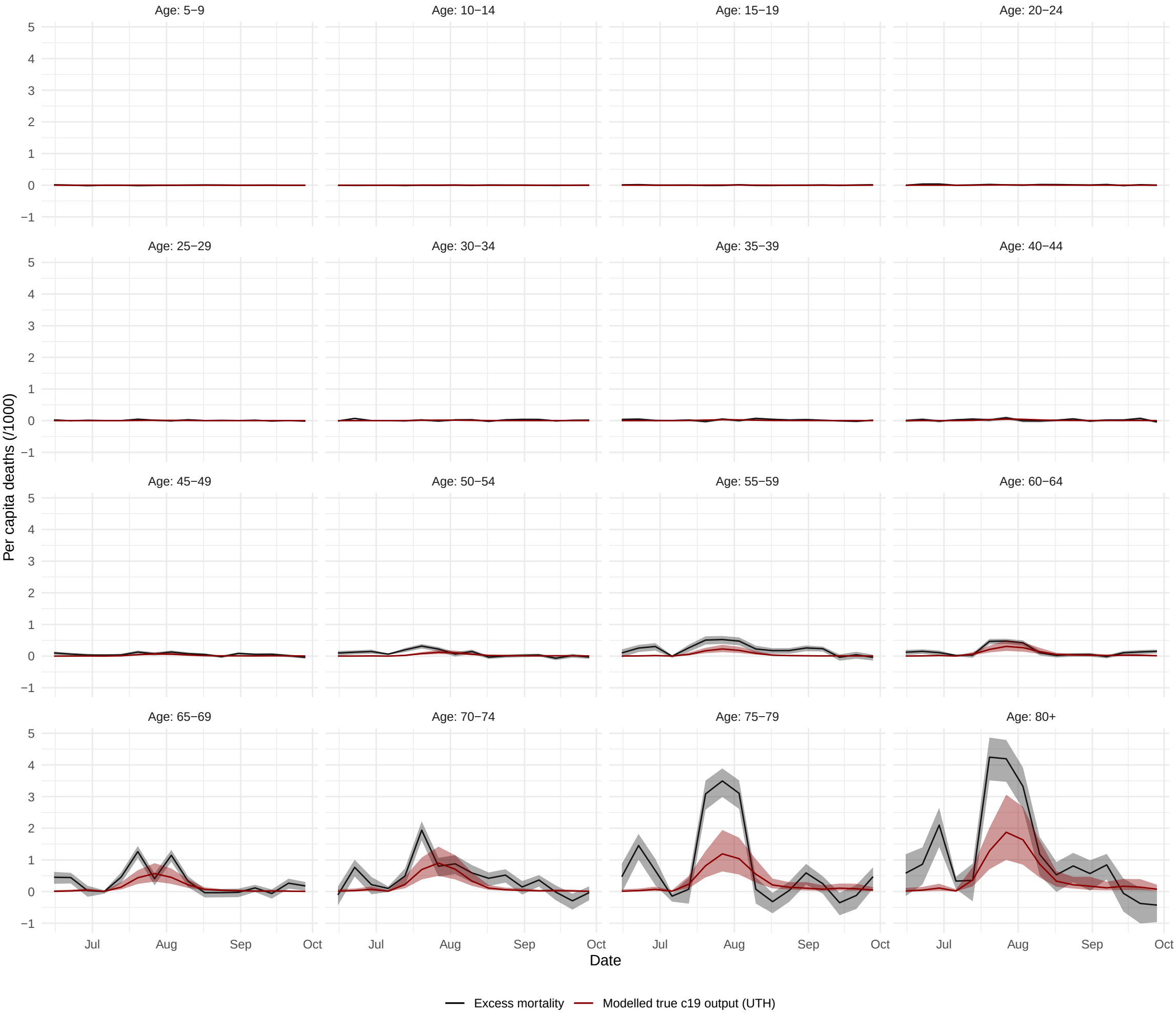
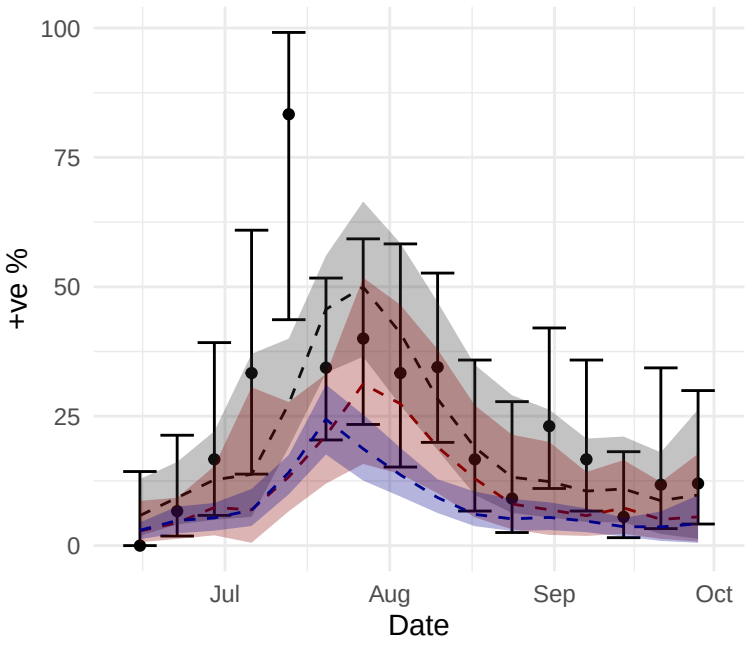
Mortuary deaths
Mortuary surveillance disrupted?
Model fit
Model fit (unstandardised)

IFR x 0.2, Slope x 1

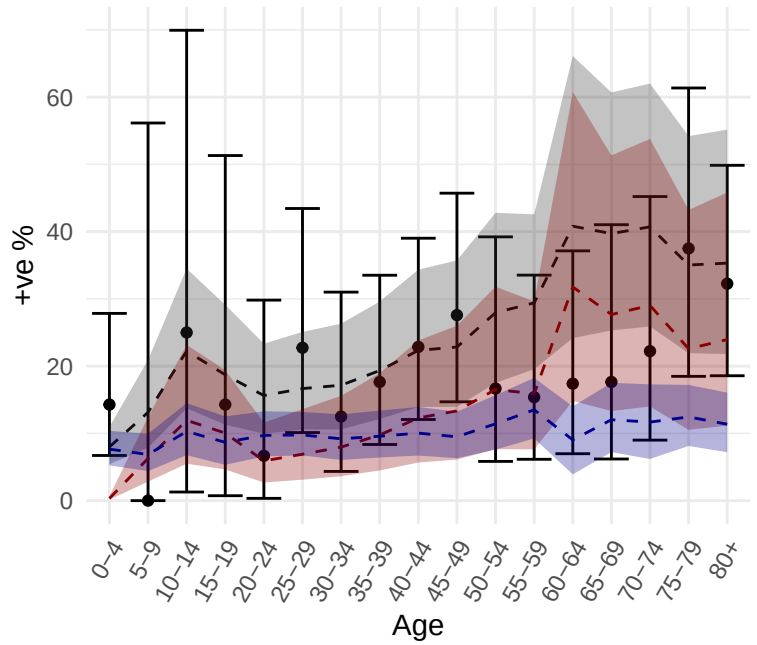
COVID−19 excess mortality: Comparison of MCMC results with squire results



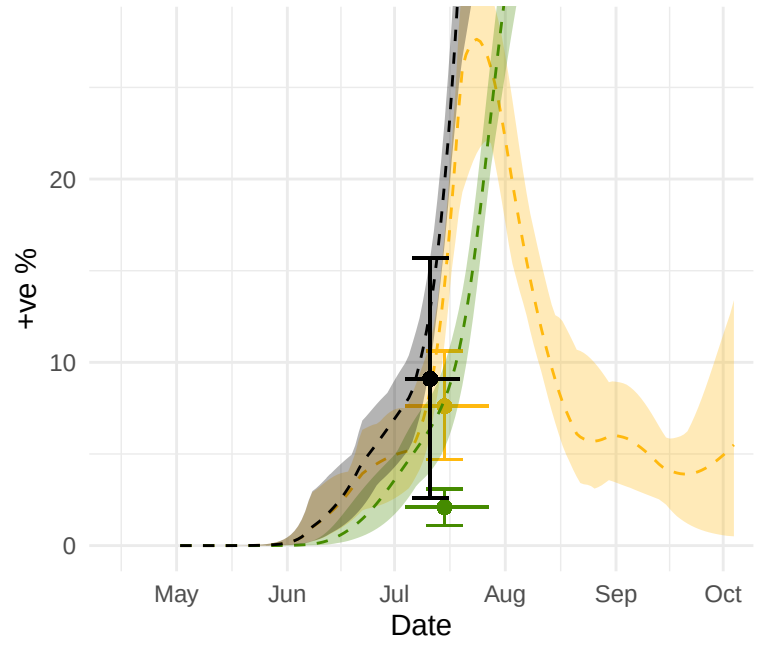
IFR x 0.4, Slope x 1
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

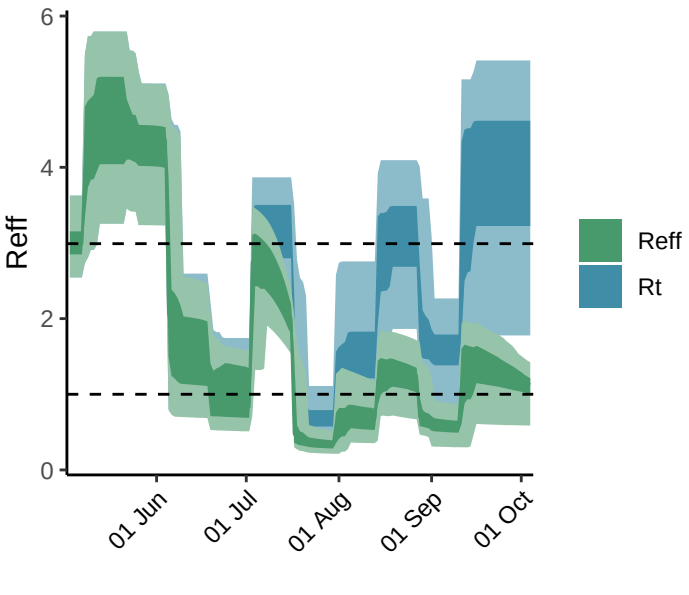


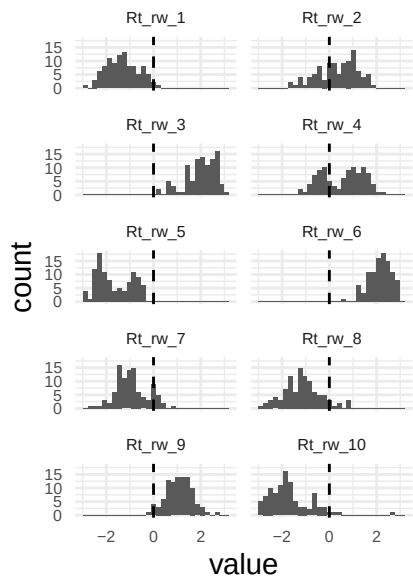
COVID−19 prevalence
Lusaka/Zambia



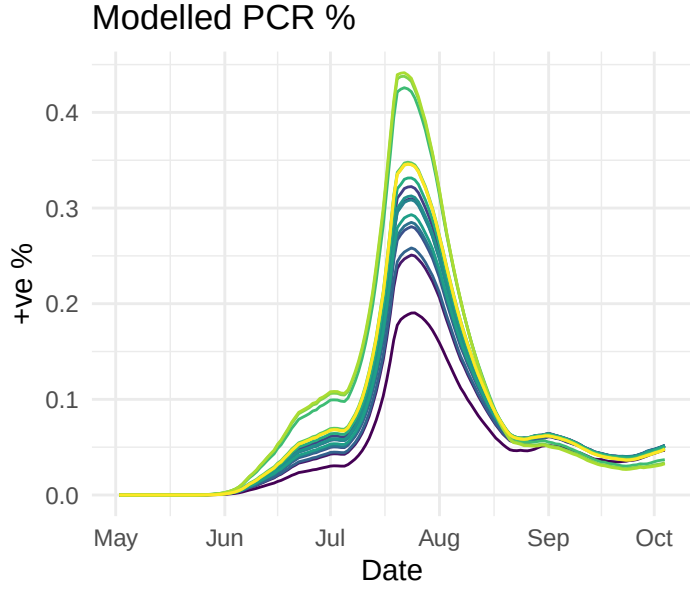
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)



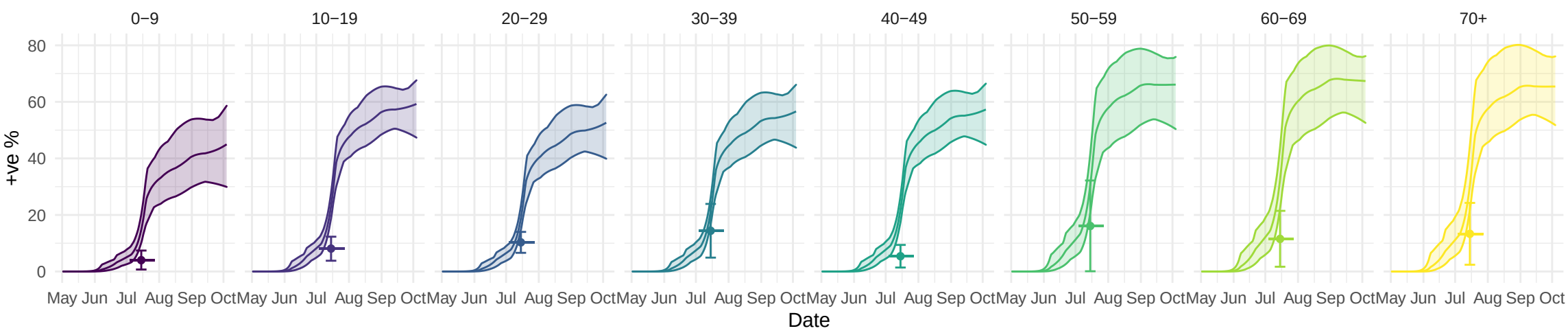


Modelled PCR %



Age: 0−4
Age: 5−9
Age: 10−14
Age: 15−19
Age: 20−24
Age: 25−29
Age: 30−34
Age: 35−39
Age: 40−44
Age: 45−49
Age: 50−54
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



IFR x 0.4, Slope x 1
COVID−19 weekly deaths (Mortuary)

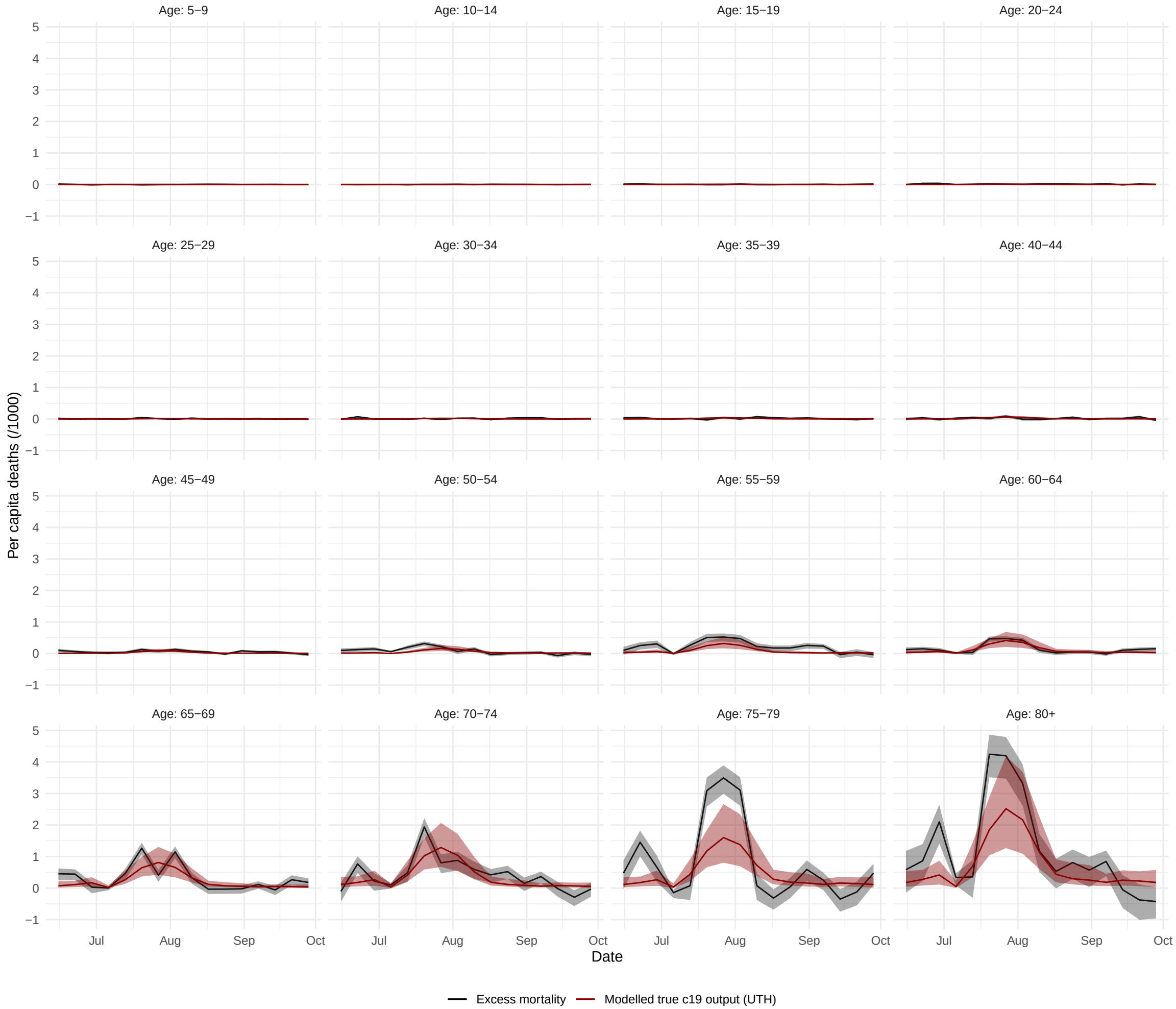
Age: 0−4; Pois ll = −49.8
Age: 5−9; Pois ll = −35.1
Age: 10−14; Pois ll = −28.8
Age: 15−19; Pois ll = −35.5
Age: 20−24; Pois ll = −45.7
Age: 25−29; Pois ll = −42.1
Age: 30−34; Pois ll = −51.5
Age: 35−39; Pois ll = −48.8
Age: 40−44; Pois ll = −48.6
Age: 45−49; Pois ll = −48.9
Age: 50−54; Pois ll = −48.5
Age: 55−59; Pois ll = −46.5
Age: 60−64; Pois ll = −41.6
Age: 65−69; Pois ll = −42.2
Age: 70−74; Pois ll = −41.3
Age: 75−79; Pois ll = −44.7
Age: 80+; Pois ll = −51.2

Deaths
0
20
40
60
Jul
Aug
Sep
Oct
Date

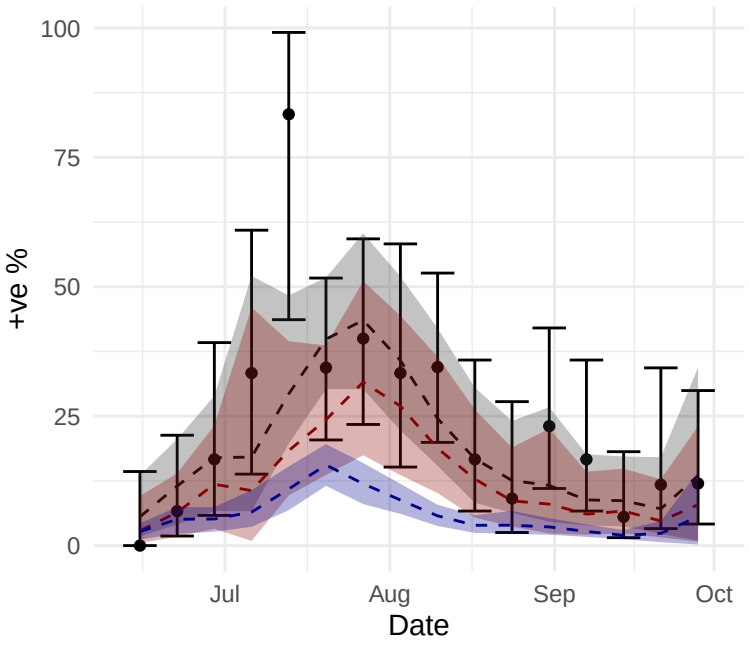
Mortuary deaths
Mortuary surveillance disrupted?
Model fit
Model fit (unstandardised)

IFR x 0.4, Slope x 1

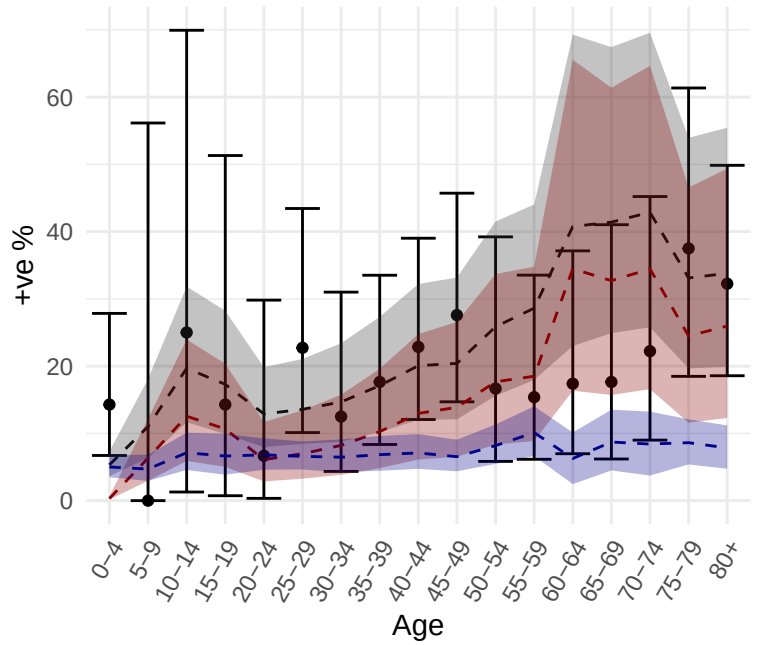
COVID−19 excess mortality: Comparison of MCMC results with squire results



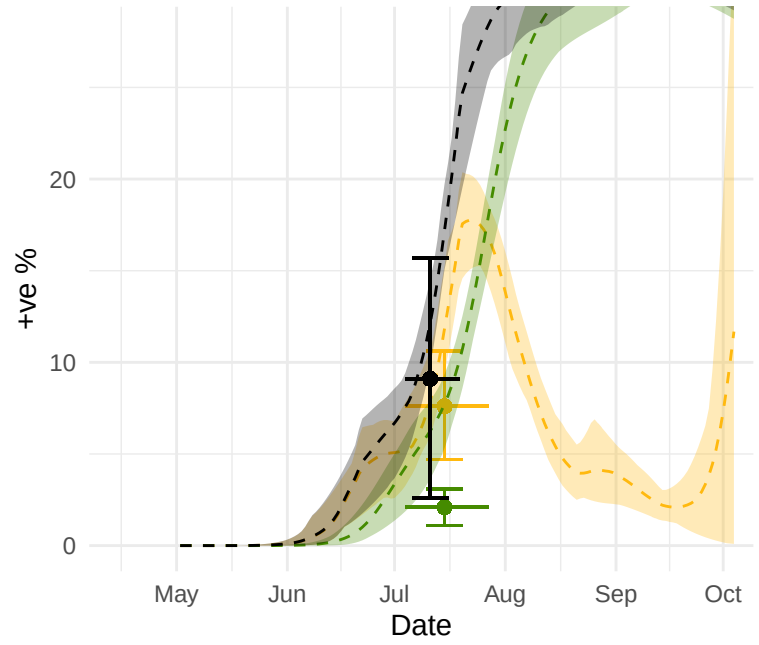
IFR x 0.6, Slope x 1
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

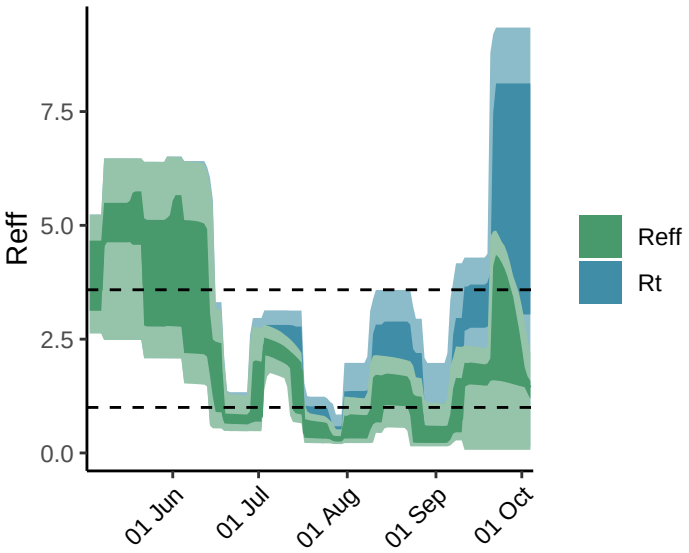


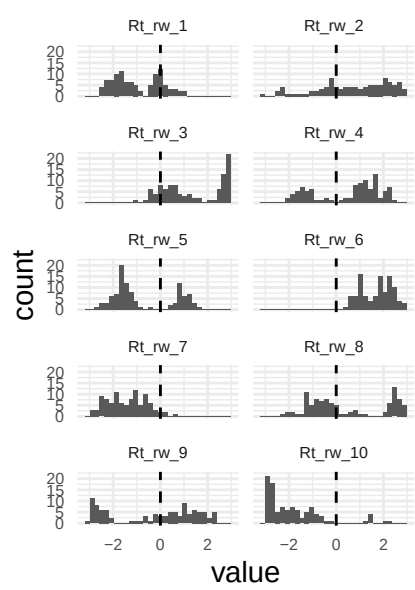
COVID−19 prevalence
Lusaka/Zambia



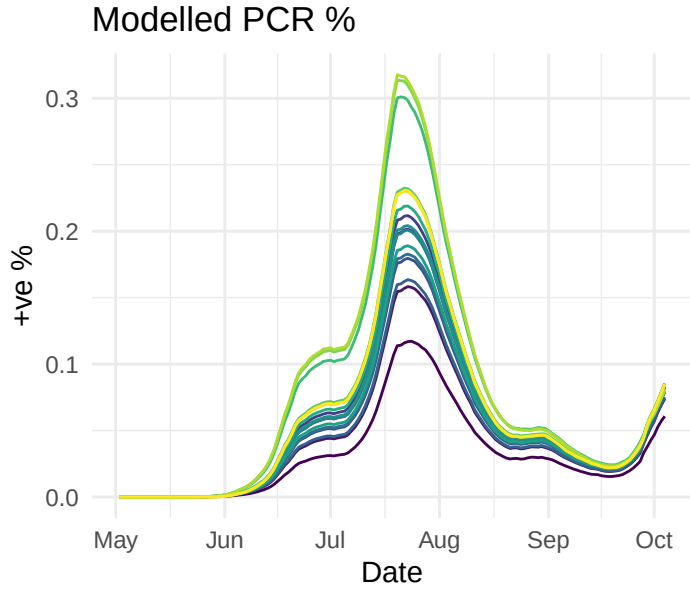
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)





Modelled PCR %



Age: 0–4
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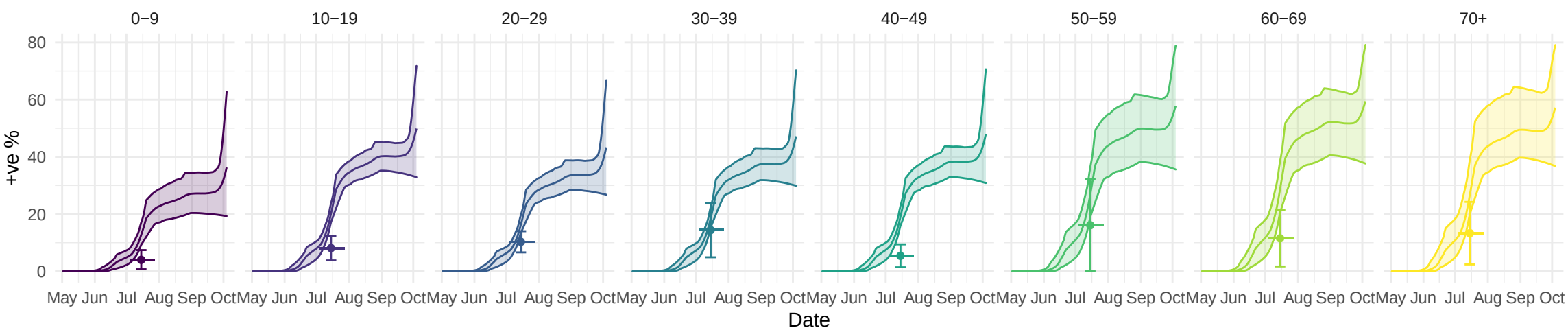
Age: 50–54
Age: 55–59
Age: 60–64
Age: 65–69
Age: 70–74
Age: 75–79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



IFR x 0.6, Slope x 1
COVID−19 weekly deaths (Mortuary)

Age: 0−4; Pois ll = −49.8
Age: 5−9; Pois ll = −35.2
Age: 10−14; Pois ll = −28.9
Age: 15−19; Pois ll = −35.5
Age: 20−24; Pois ll = −45.5
Age: 25−29; Pois ll = −42.1
Age: 30−34; Pois ll = −51.4
Age: 35−39; Pois ll = −48.8
Age: 40−44; Pois ll = −48.5
Age: 45−49; Pois ll = −48.8
Age: 50−54; Pois ll = −47.2
Age: 55−59; Pois ll = −45
Age: 60−64; Pois ll = −41.3
Age: 65−69; Pois ll = −41.6
Age: 70−74; Pois ll = −40.6
Age: 75−79; Pois ll = −44.1
Age: 80+; Pois ll = −49.9

Deaths

0
20
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Aug
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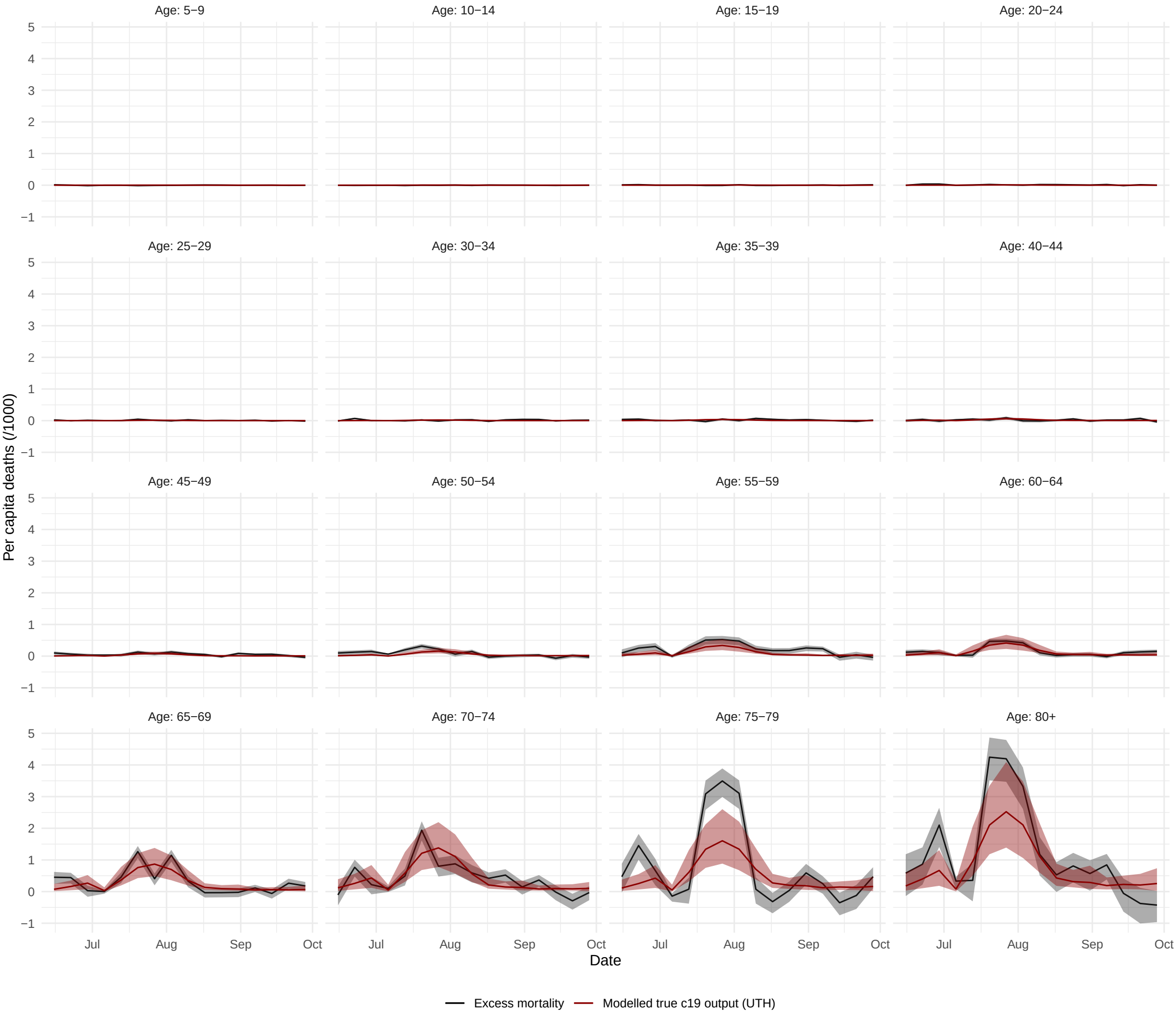
Date

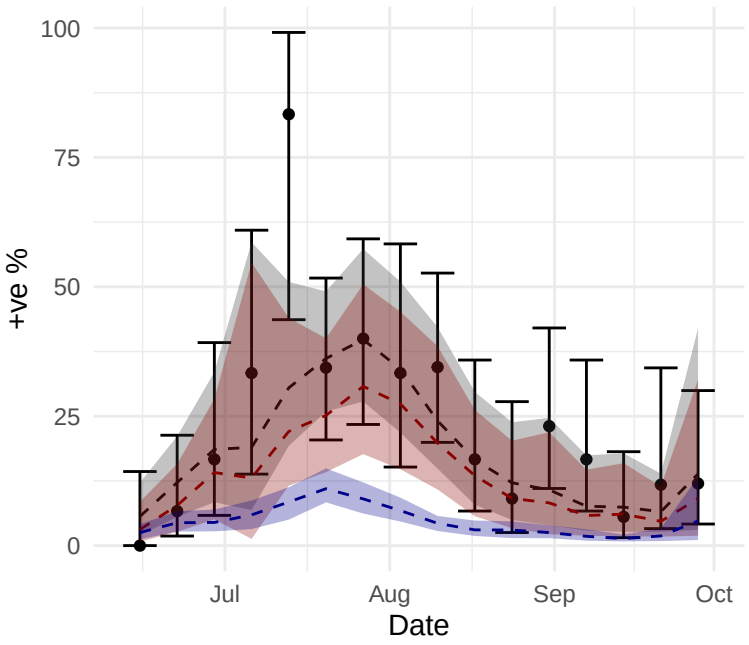
Mortuary deaths
Mortuary surveillance disrupted?
Model fit
Model fit (unstandardised)

IFR x 0.6, Slope x 1

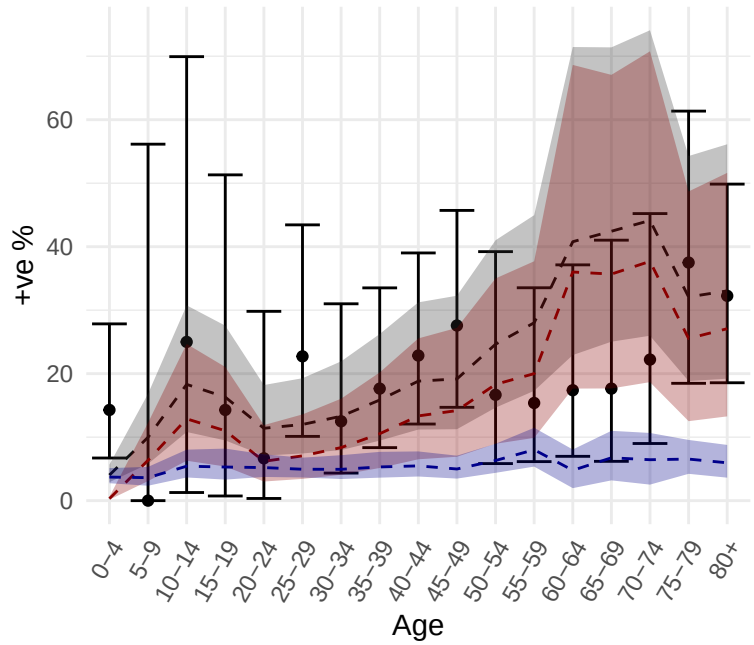
COVID−19 excess mortality: Comparison of MCMC results with squire results



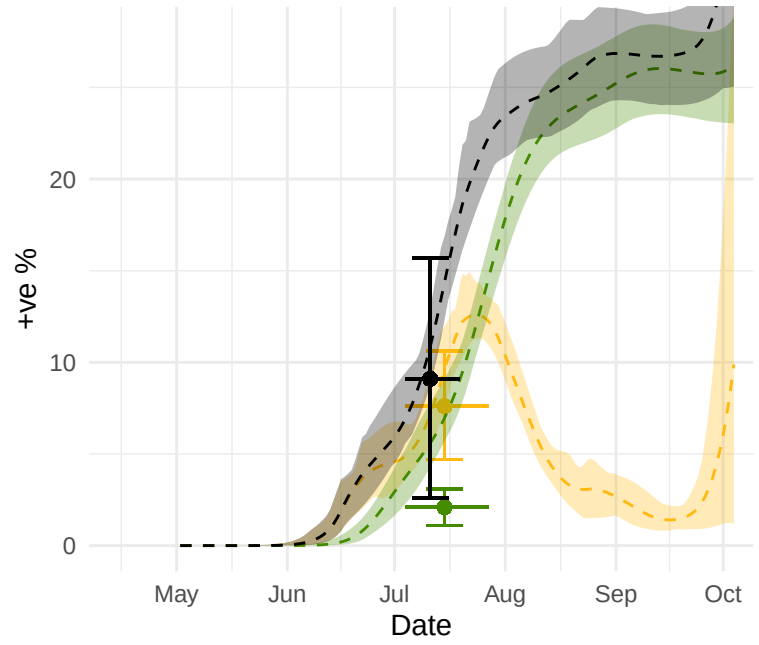
IFR x 0.8, Slope x 1
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

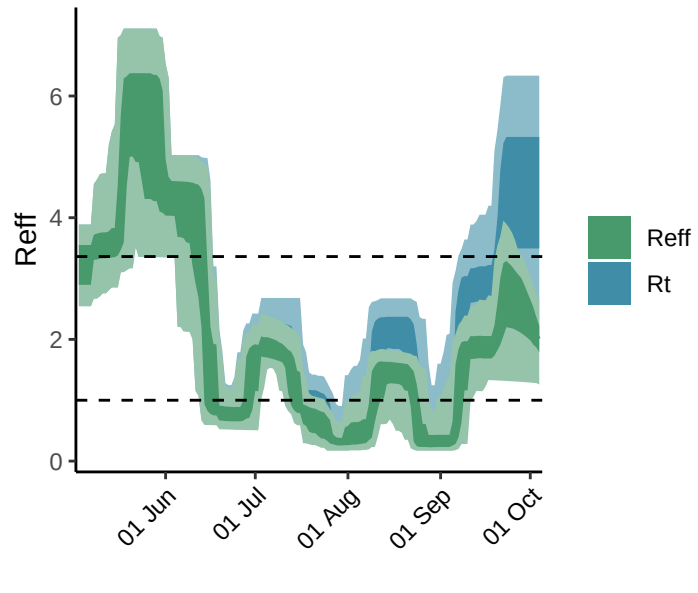


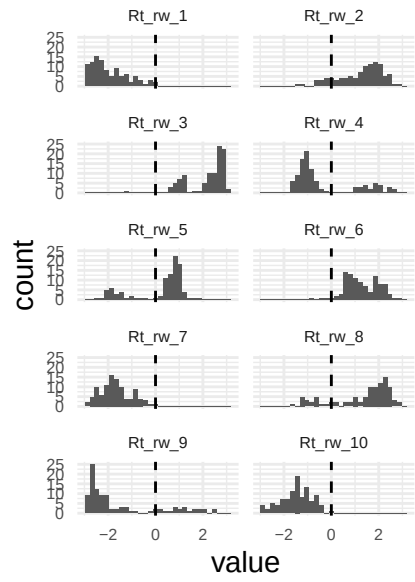
COVID−19 prevalence
Lusaka/Zambia



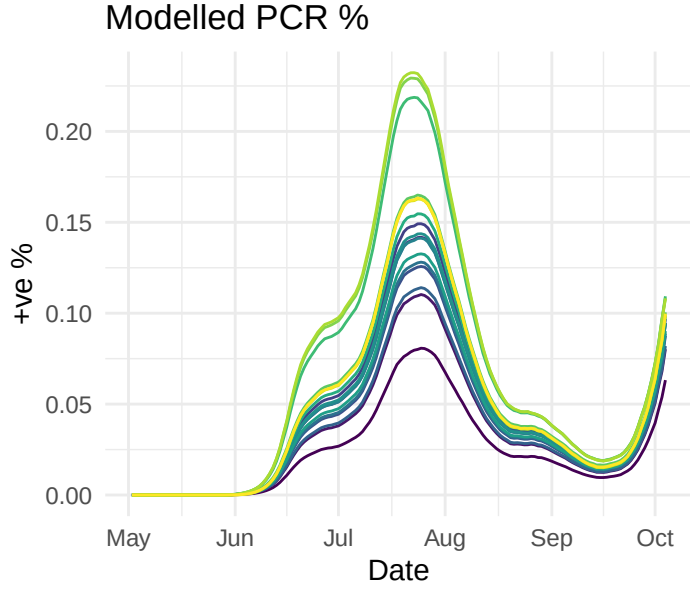
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)





Modelled PCR %



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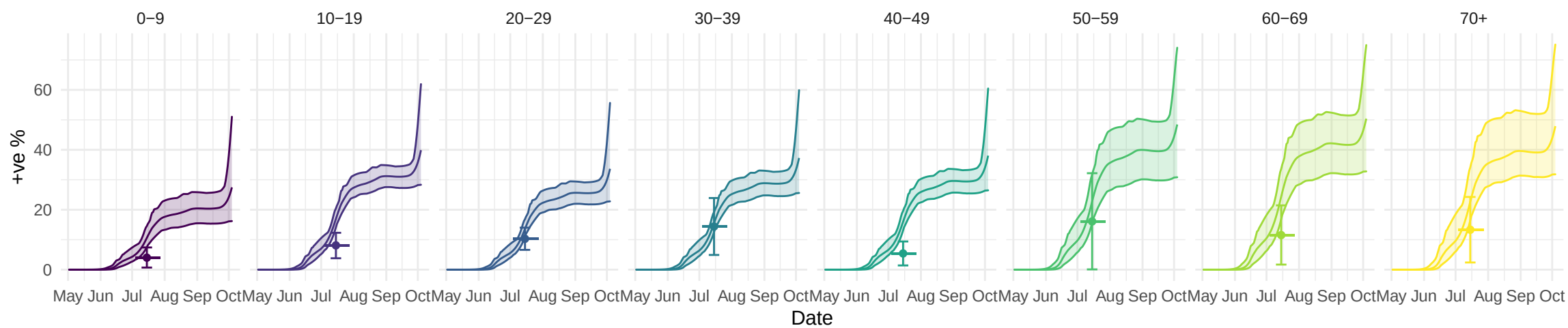
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



IFR x 0.8, Slope x 1
COVID−19 weekly deaths (Mortuary)

Age: 0−4; Pois ll = −49.8
Age: 5−9; Pois ll = −35.2
Age: 10−14; Pois ll = −29
Age: 15−19; Pois ll = −35.4
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Deaths
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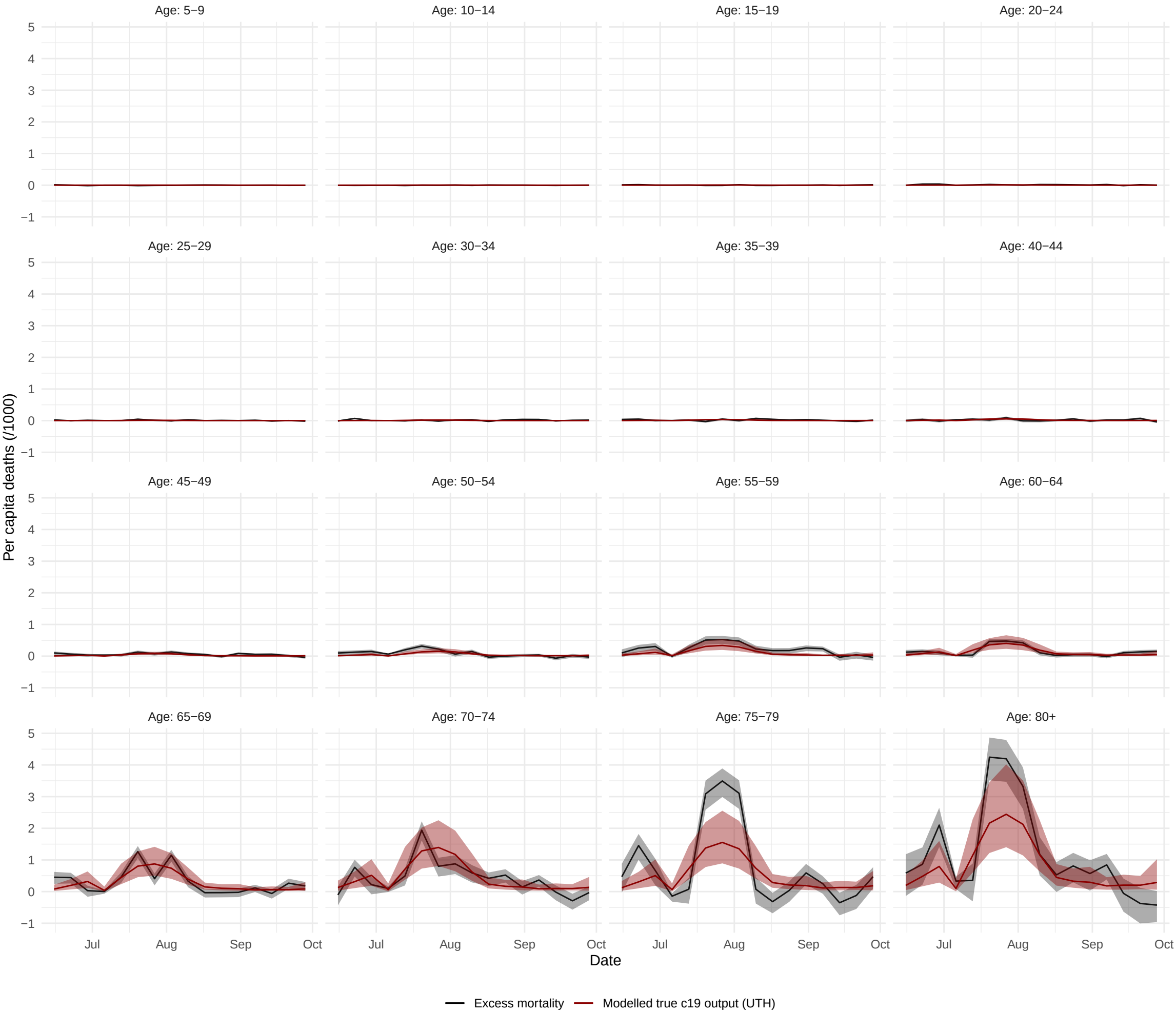
Date

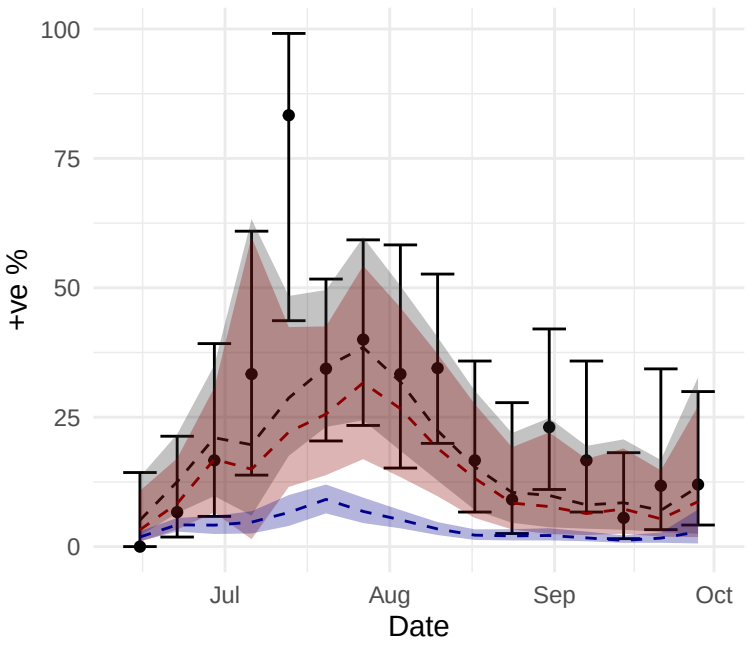
Mortuary deaths
Mortuary surveillance disrupted?
Model fit
Model fit (unstandardised)

IFR x 0.8, Slope x 1

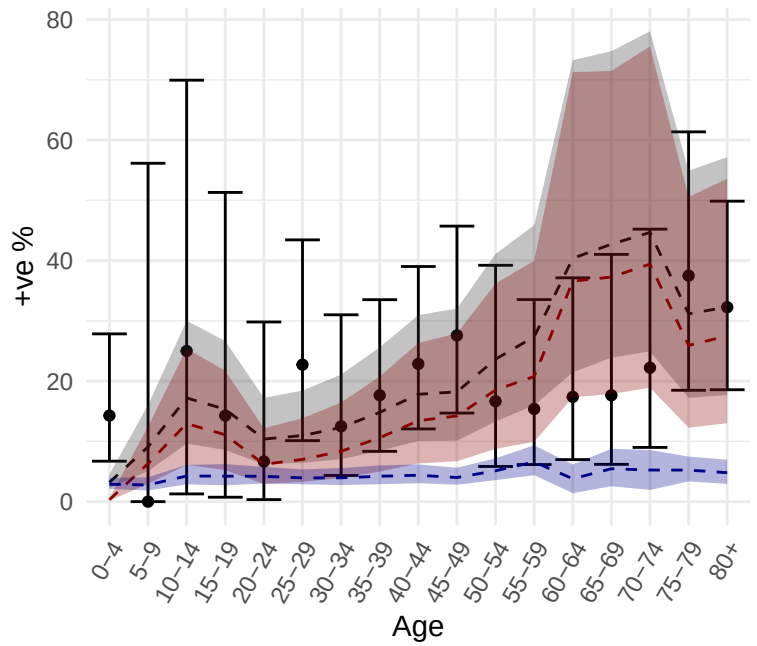
COVID−19 excess mortality: Comparison of MCMC results with squire results



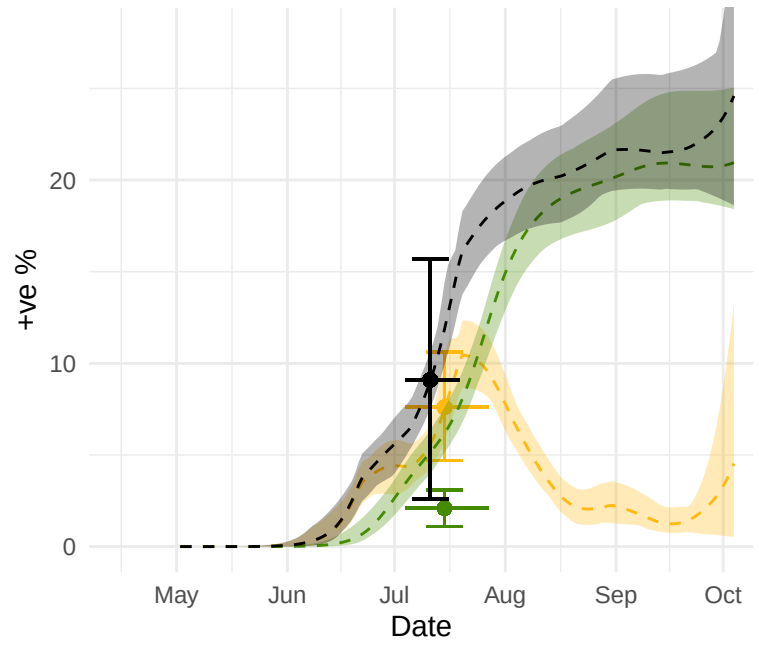
IFR x 1, Slope x 1
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

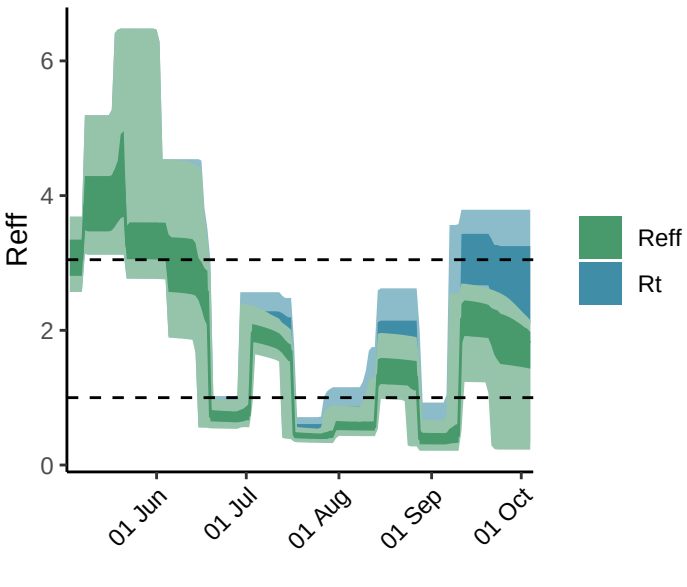


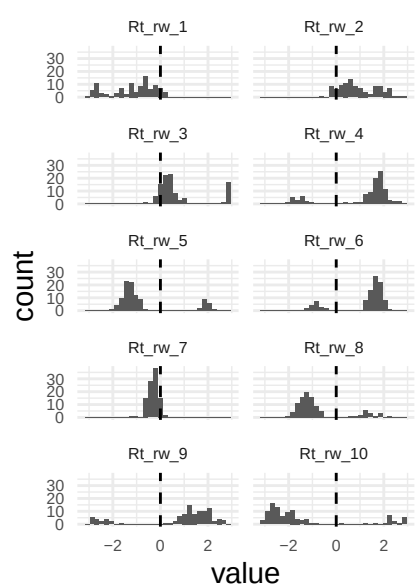
COVID−19 prevalence
Lusaka/Zambia



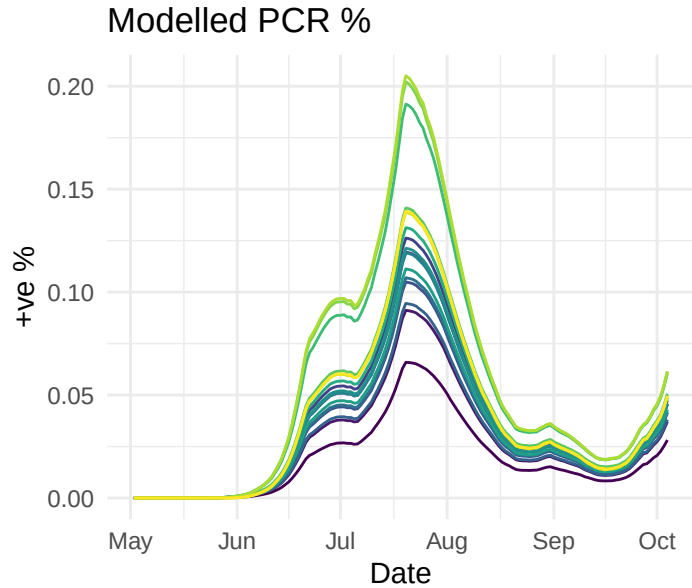
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)





Modelled PCR %



Age: 0−4
Age: 5−9
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Age: 50−54
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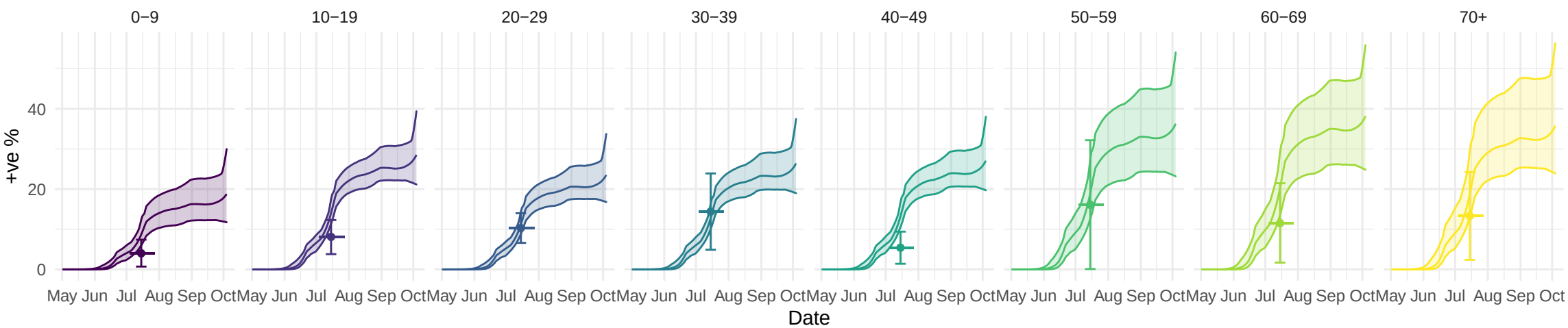
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



IFR x 1, Slope x 1
COVID−19 weekly deaths (Mortuary)

Age: 0−4; Pois ll = −49.8
Age: 5−9; Pois ll = −35.3
Age: 10−14; Pois ll = −29
Age: 15−19; Pois ll = −35.4
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Age: 25−29; Pois ll = −42
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Deaths

0
20
40
60

Jul
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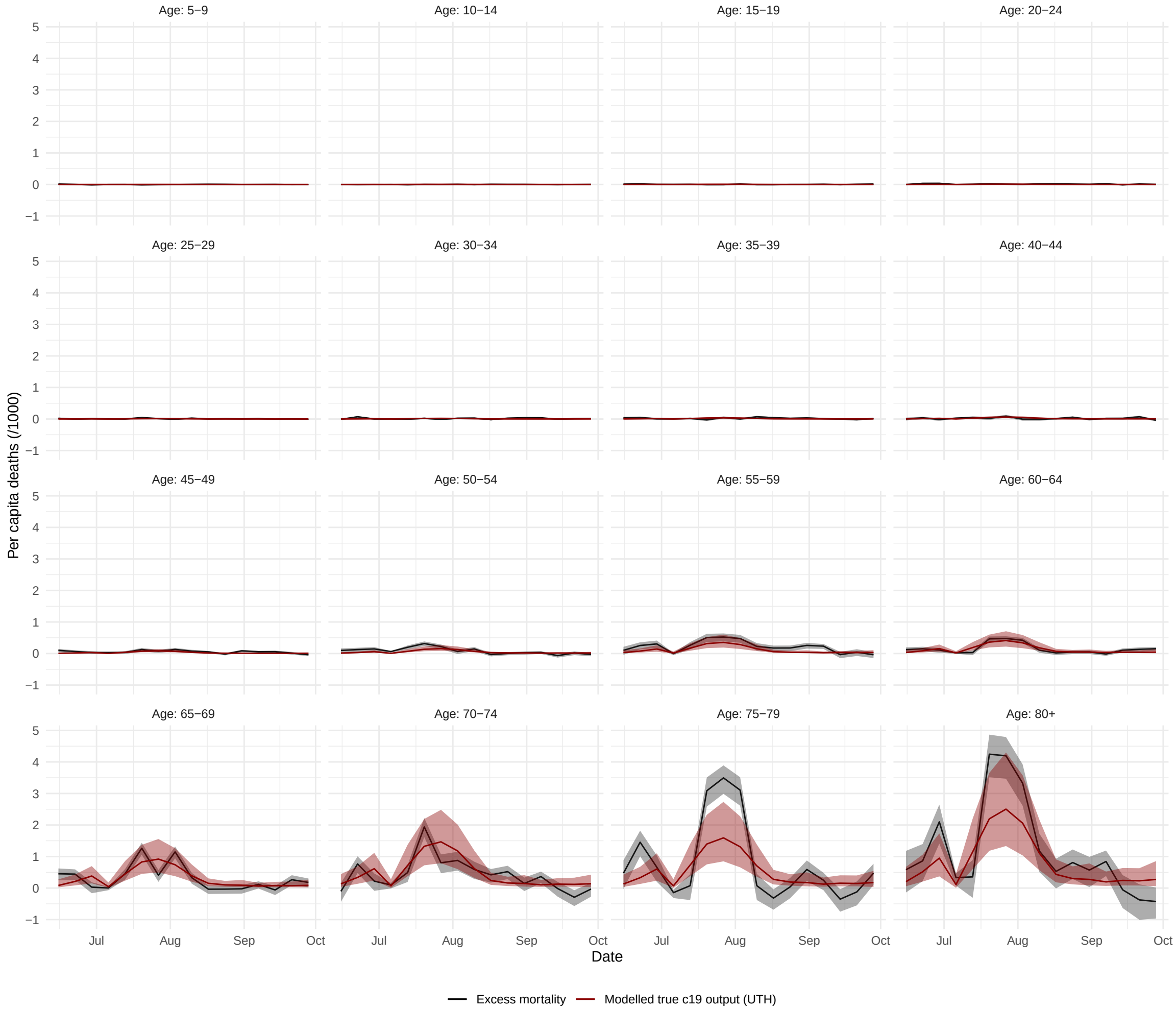
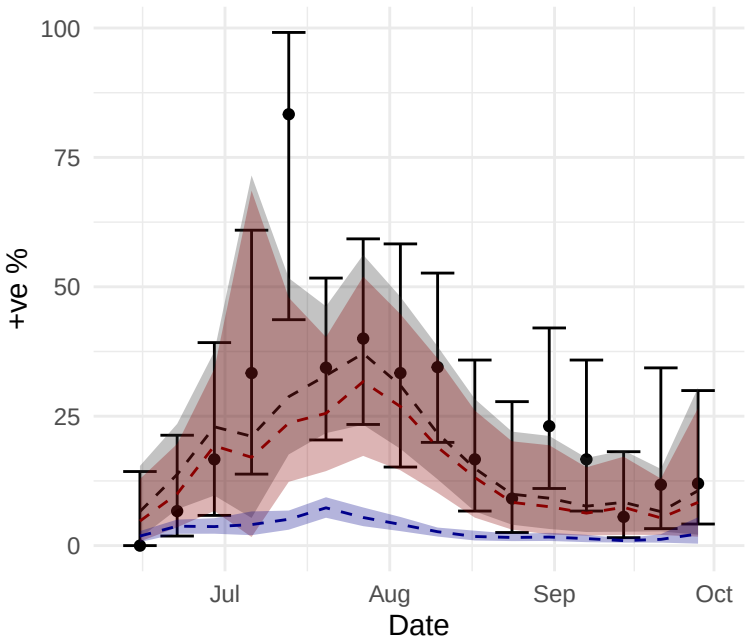
Date

Mortuary deaths
Mortuary surveillance disrupted?
Model fit
Model fit (unstandardised)

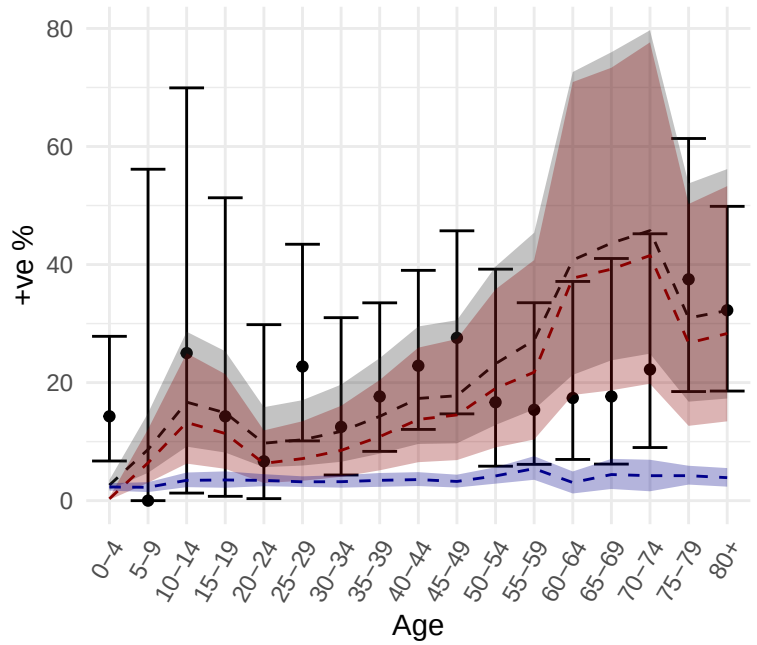
IFR x 1, Slope x 1
COVID−19 excess mortality: Comparison of MCMC results with squire results



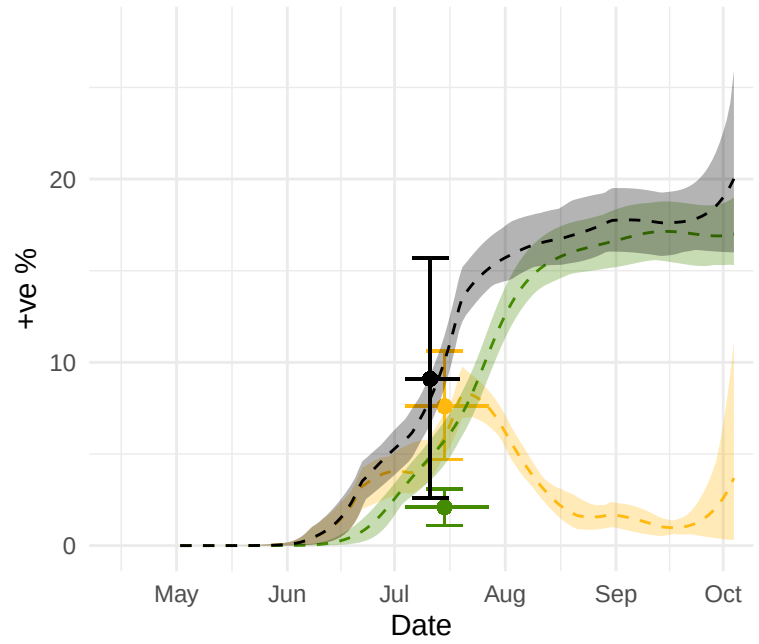
IFR x 1.25, Slope x 1
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

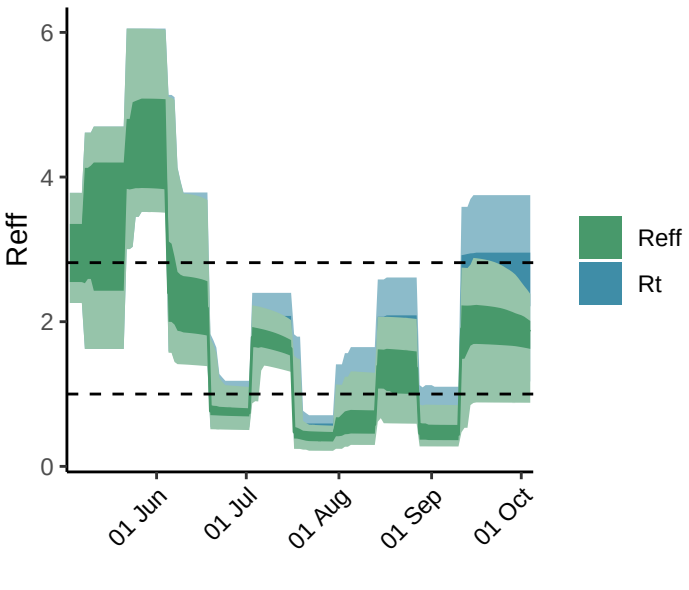


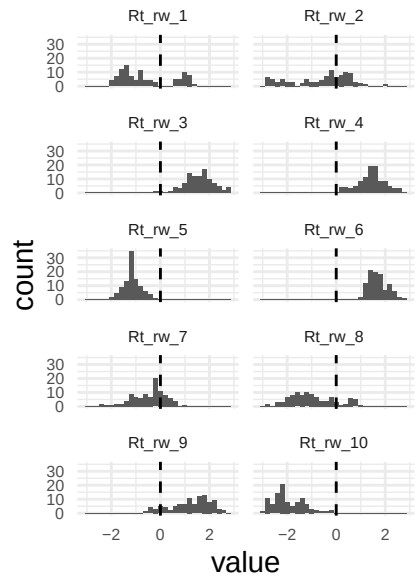
COVID−19 prevalence
Lusaka/Zambia



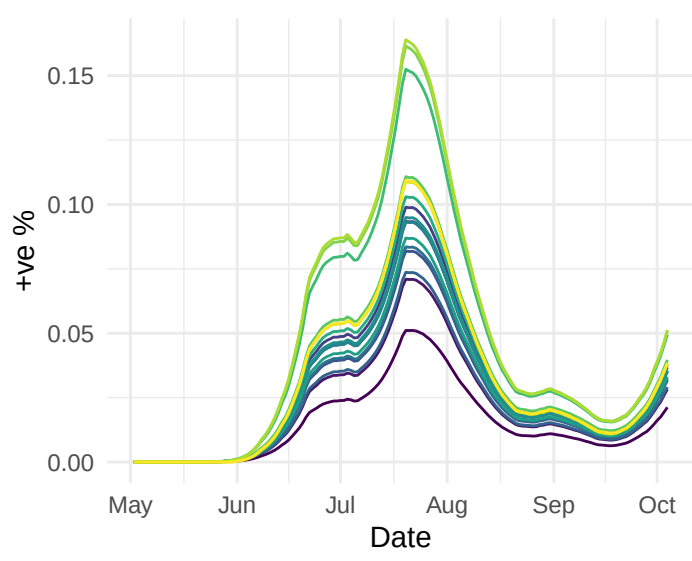
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)





Modelled PCR %



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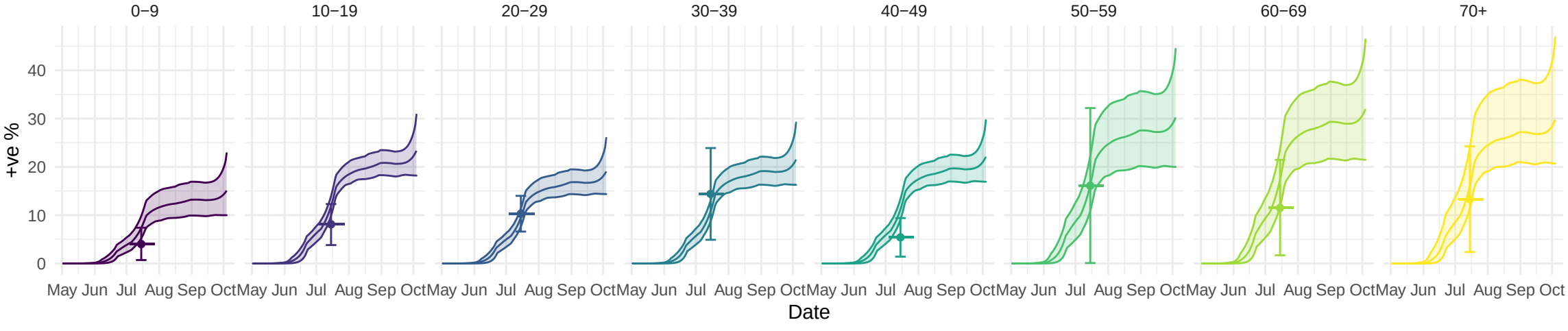
Age: 45–49
Age: 50–54
Age: 55–59
Age: 60–64
Age: 65–69
Age: 70–74
Age: 75–79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



IFR x 1.25, Slope x 1
COVID−19 weekly deaths (Mortuary)

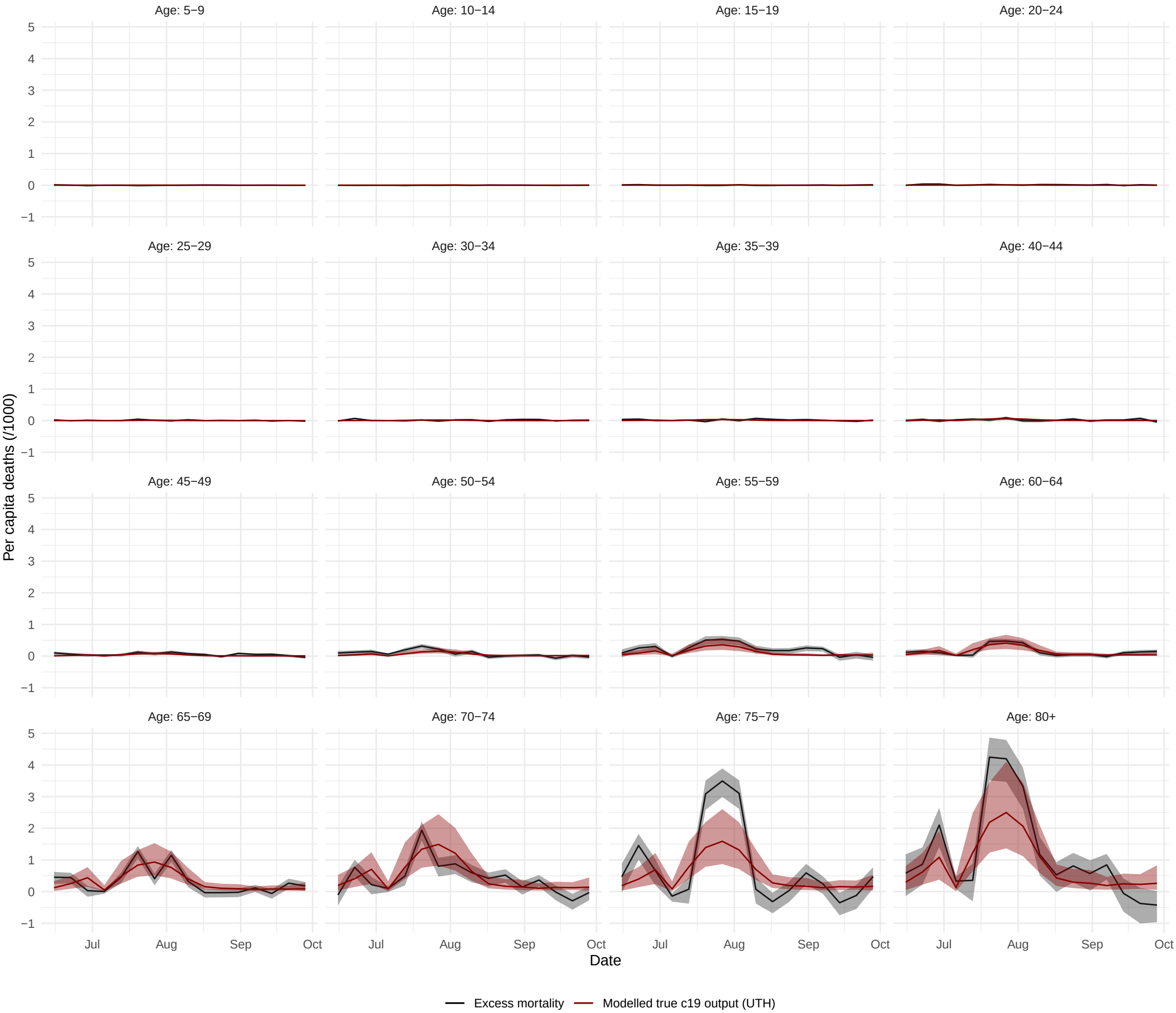
Age: 0−4; Pois ll = −49.8
Age: 5−9; Pois ll = −35.3
Age: 10−14; Pois ll = −29.1
Age: 15−19; Pois ll = −35.3
Age: 20−24; Pois ll = −45.2
Age: 25−29; Pois ll = −42
Age: 30−34; Pois ll = −51.4
Age: 35−39; Pois ll = −48.8
Age: 40−44; Pois ll = −48.4
Age: 45−49; Pois ll = −48.5
Age: 50−54; Pois ll = −46
Age: 55−59; Pois ll = −43.7
Age: 60−64; Pois ll = −41.4
Age: 65−69; Pois ll = −41.6
Age: 70−74; Pois ll = −40.9
Age: 75−79; Pois ll = −43.9
Age: 80+; Pois ll = −49

Deaths
0
20
40
60
Jul
Aug
Sep
Oct
Date

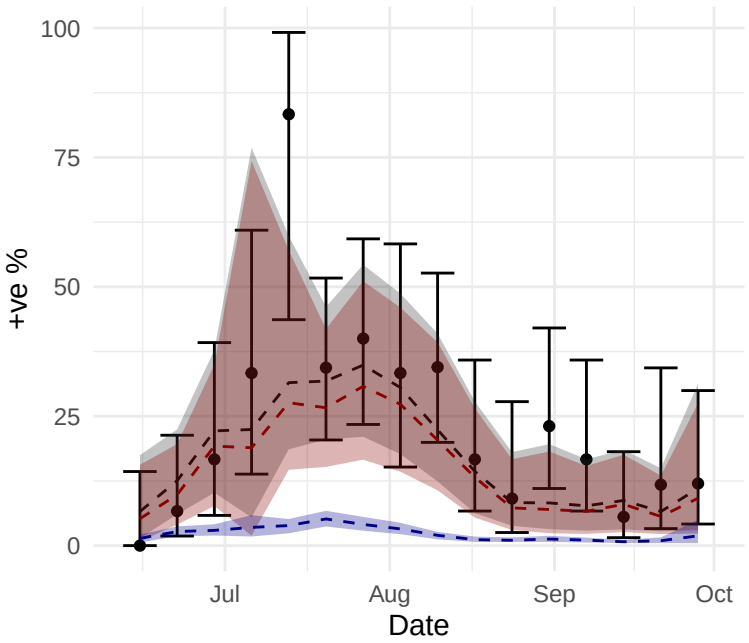
Mortuary deaths
Mortuary surveillance disrupted?
Model fit
Model fit (unstandardised)

IFR x 1.25, Slope x 1

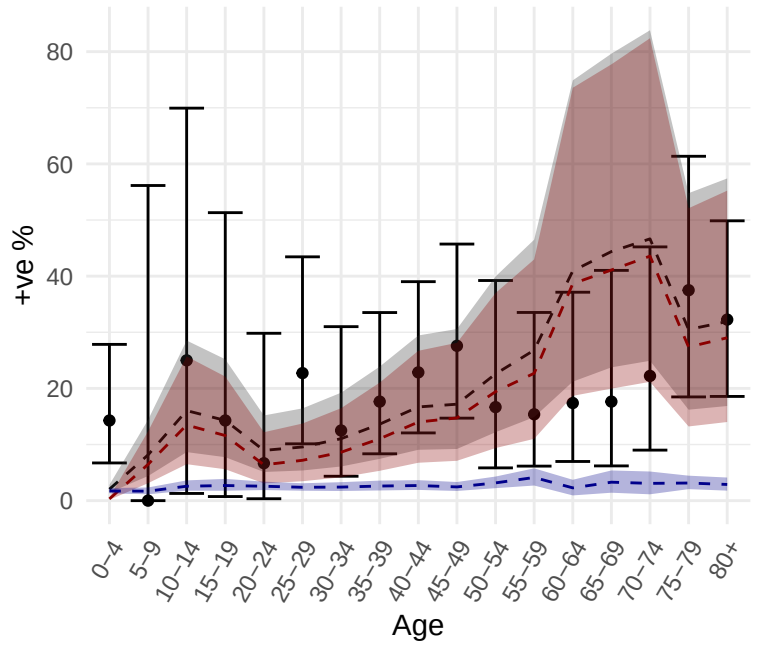
COVID−19 excess mortality: Comparison of MCMC results with squire results



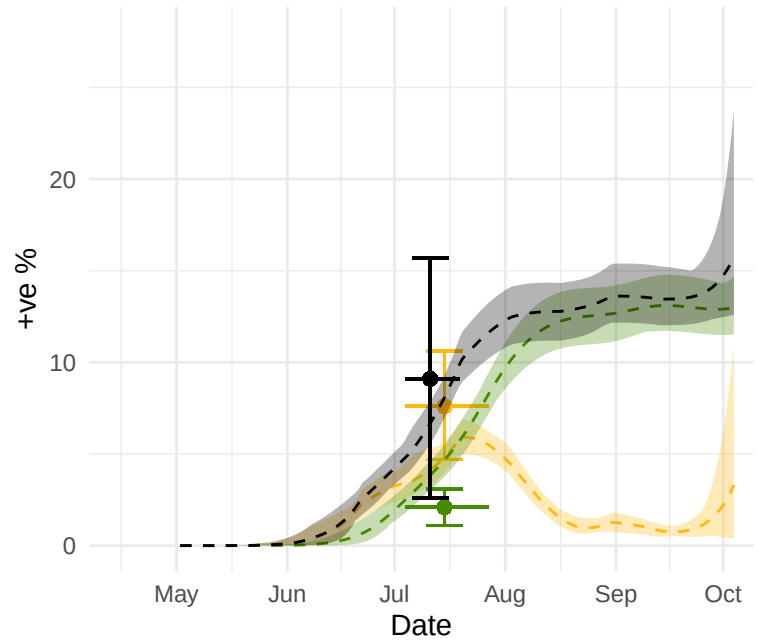
IFR x 1.67, Slope x 1
COVID−19 weekly prevalence
UTH mortuary

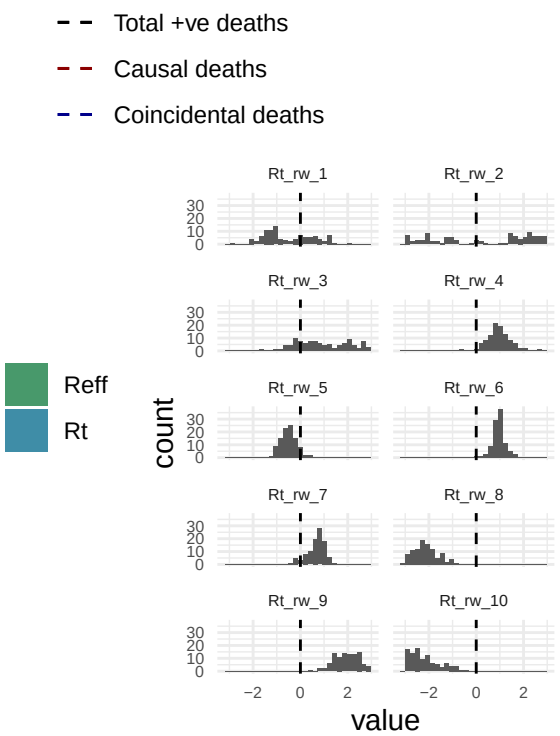


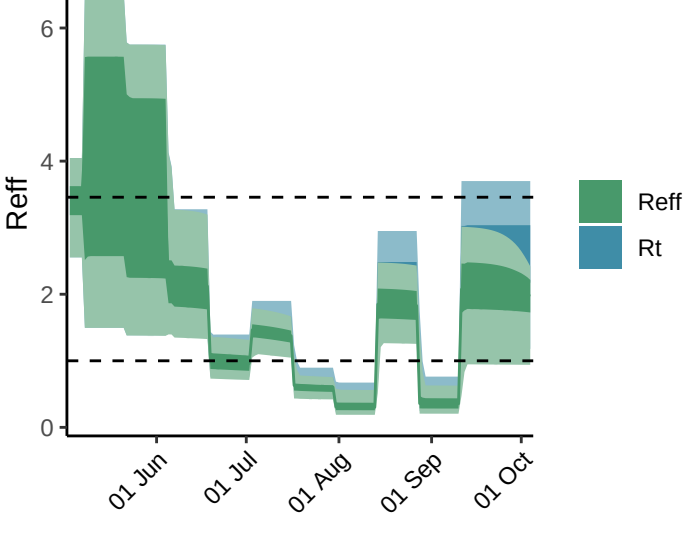
COVID−19 prevalence by age
UTH mortuary



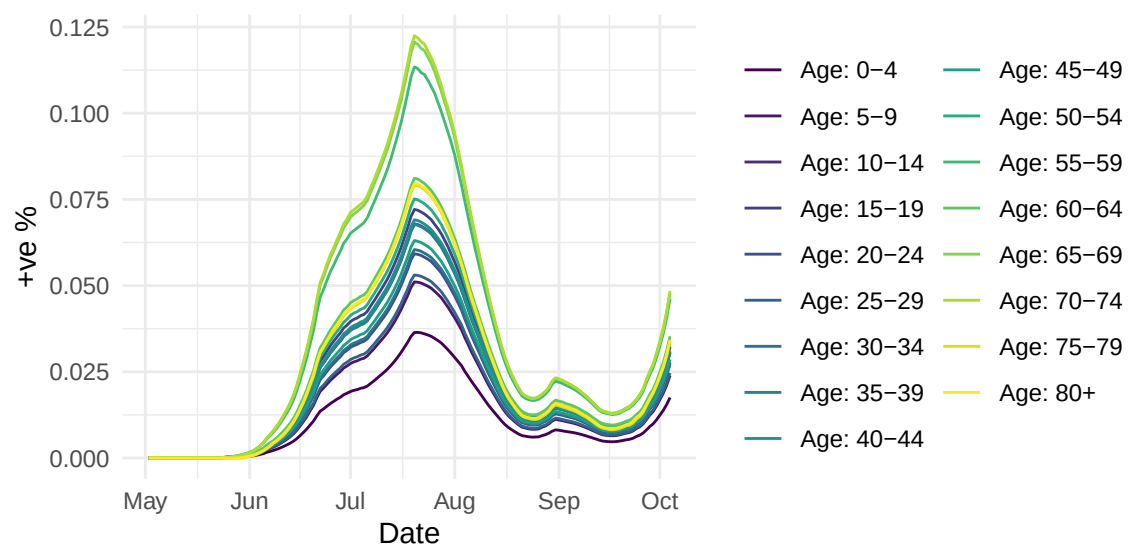
COVID−19 prevalence
Lusaka/Zambia



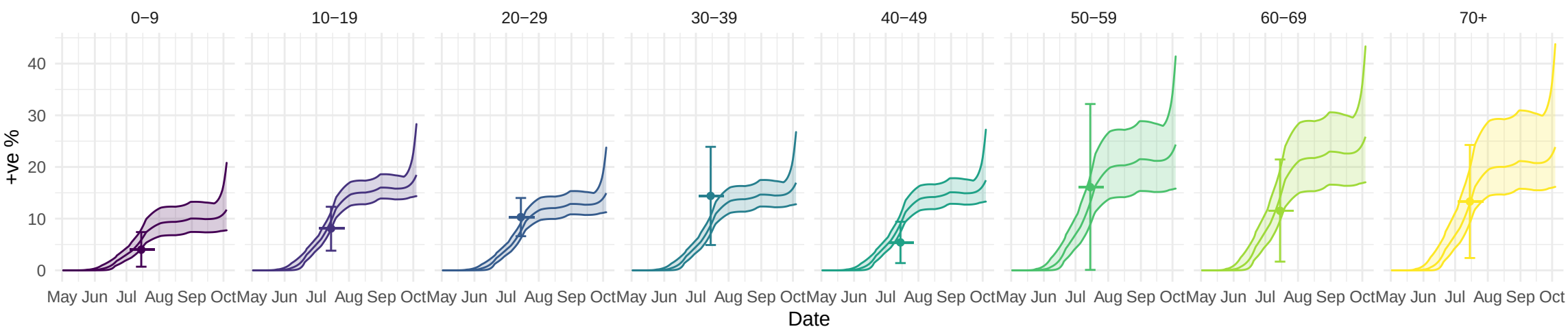




Modelled PCR %



Modelled combined prevalence, Lusaka/Zambia



Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)

IFR x 1.67, Slope x 1
COVID−19 weekly deaths (Mortuary)

Age: 0−4; Pois ll = −49.8
Age: 5−9; Pois ll = −35.3
Age: 10−14; Pois ll = −29.2
Age: 15−19; Pois ll = −35.3
Age: 20−24; Pois ll = −45.2
Age: 25−29; Pois ll = −42
Age: 30−34; Pois ll = −51.4
Age: 35−39; Pois ll = −48.8
Age: 40−44; Pois ll = −48.4
Age: 45−49; Pois ll = −48.4
Age: 50−54; Pois ll = −45.7
Age: 55−59; Pois ll = −43.6
Age: 60−64; Pois ll = −41.7
Age: 65−69; Pois ll = −41.4
Age: 70−74; Pois ll = −41.2
Age: 75−79; Pois ll = −44.2
Age: 80+; Pois ll = −49.3

Deaths

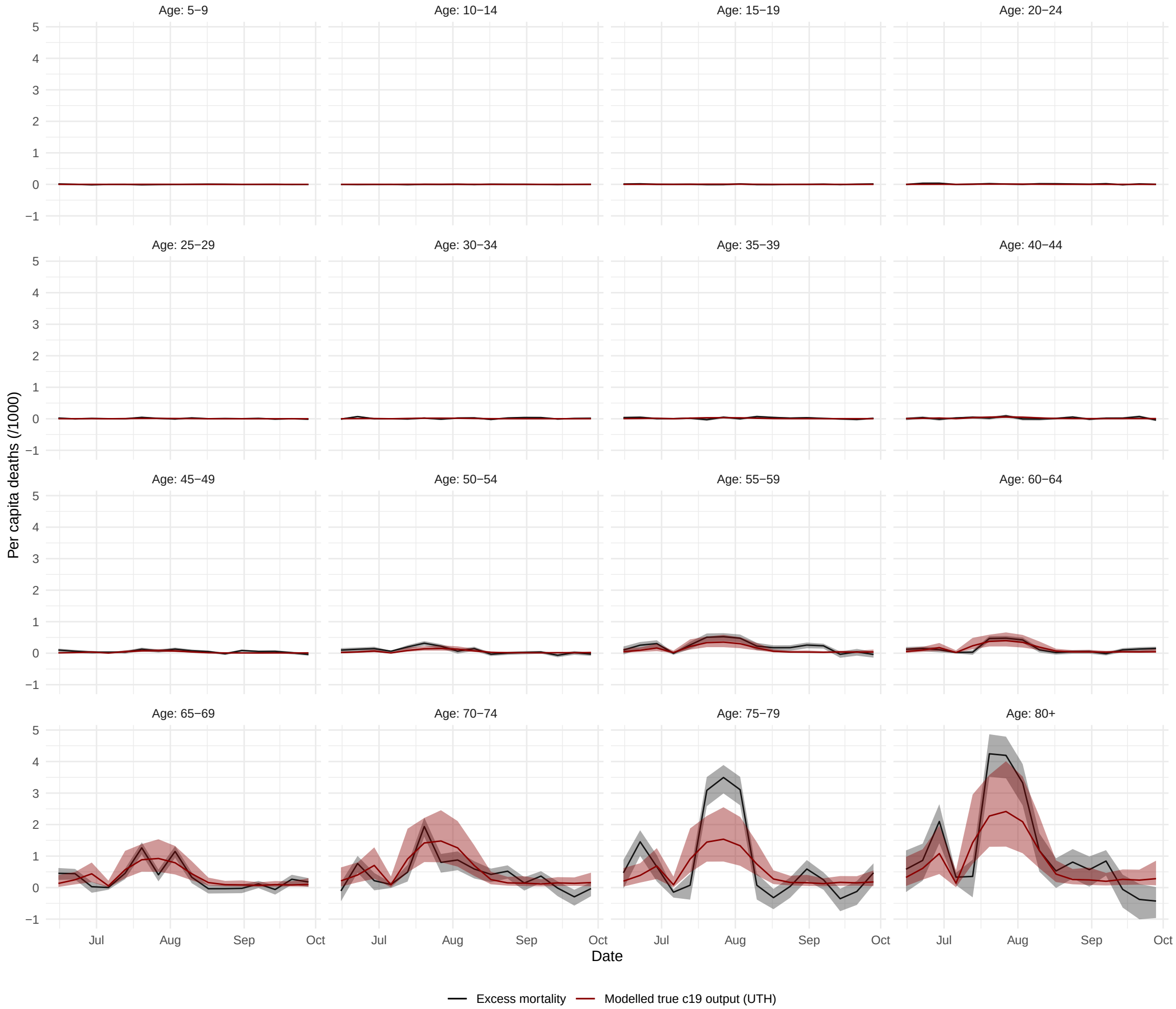
0
20
40
60

Jul
Aug
Sep
Oct

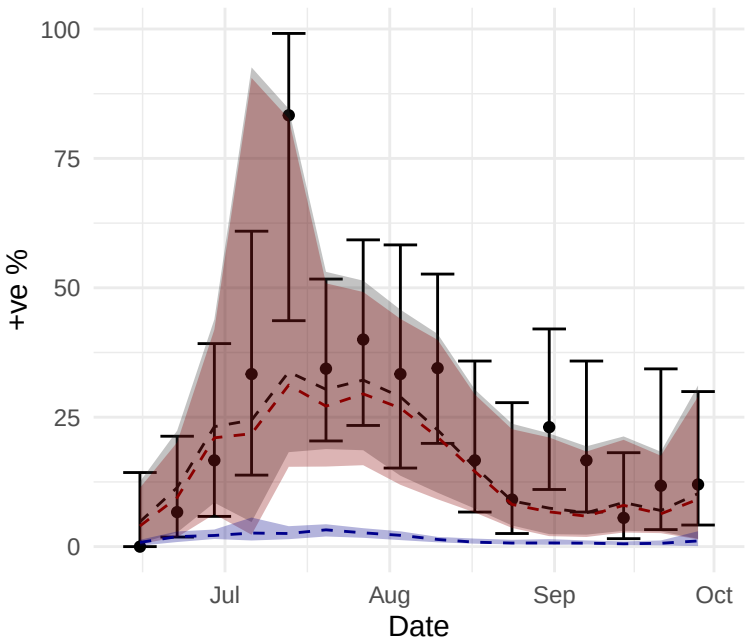
Date

Mortuary deaths
Mortuary surveillance disrupted?
Model fit
Model fit (unstandardised)

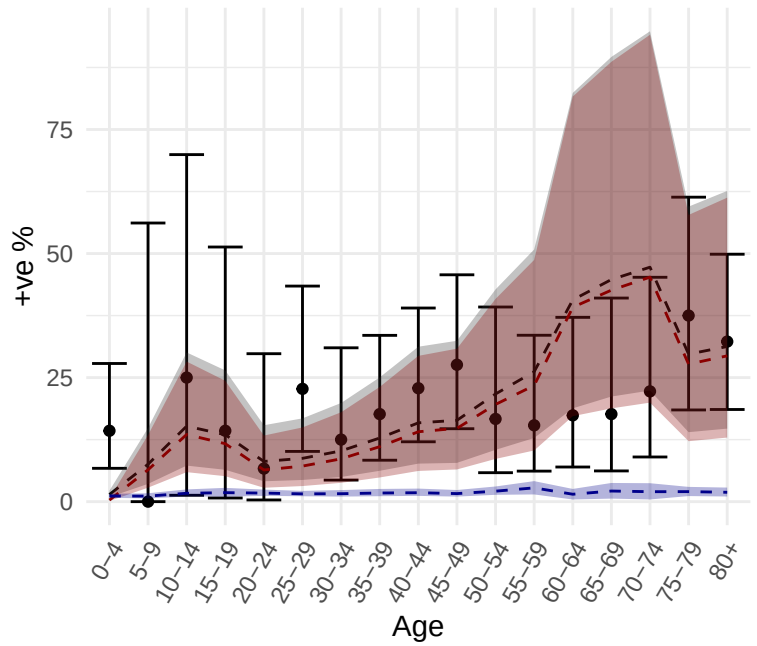
IFR x 1.67, Slope x 1
COVID−19 excess mortality: Comparison of MCMC results with squire results



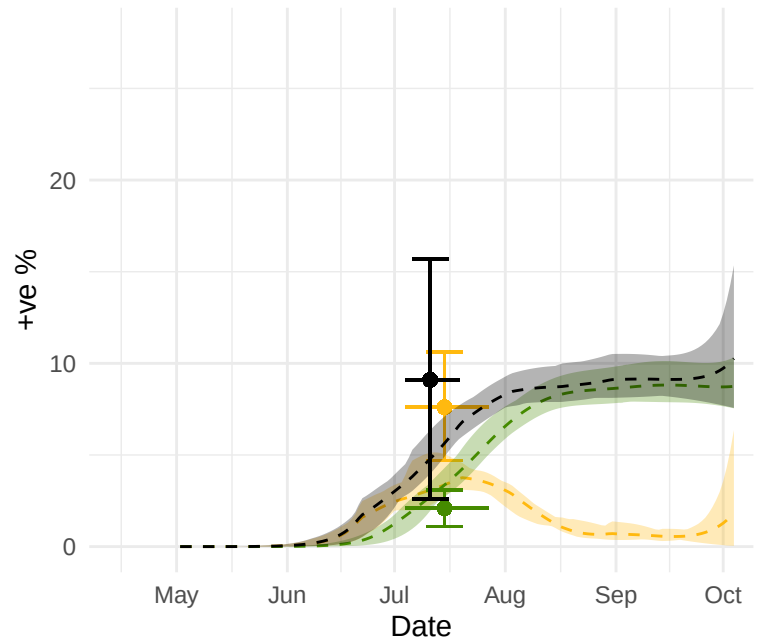
IFR x 2.5, Slope x 1
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

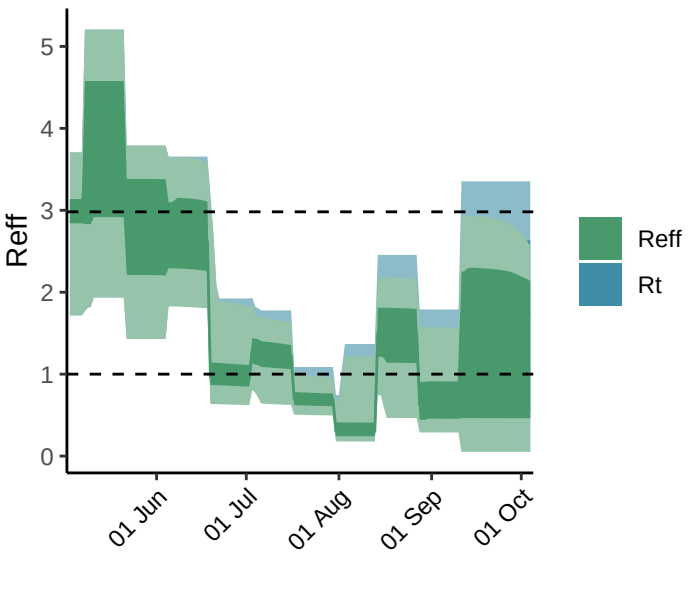


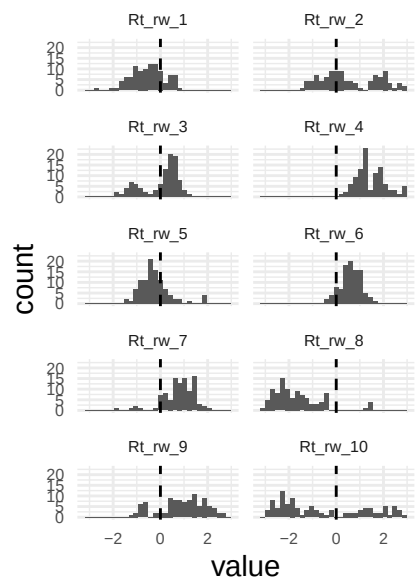
COVID−19 prevalence
Lusaka/Zambia



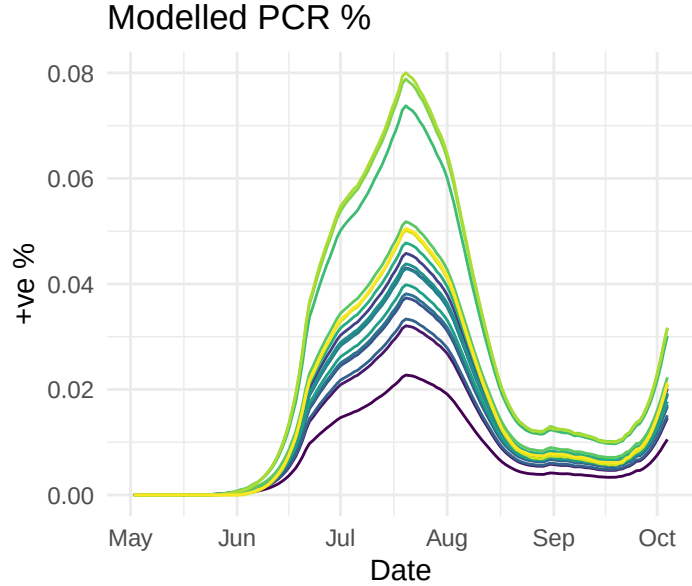
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)



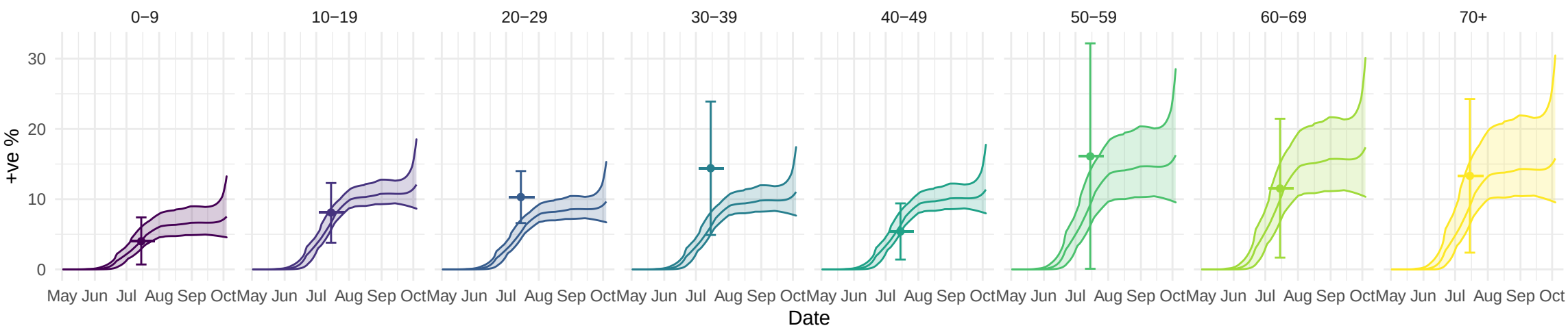


Modelled PCR %



Age: 0−4
Age: 5−9
Age: 10−14
Age: 15−19
Age: 20−24
Age: 25−29
Age: 30−34
Age: 35−39
Age: 40−44
Age: 45−49
Age: 50−54
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



IFR x 2.5, Slope x 1
COVID−19 weekly deaths (Mortuary)

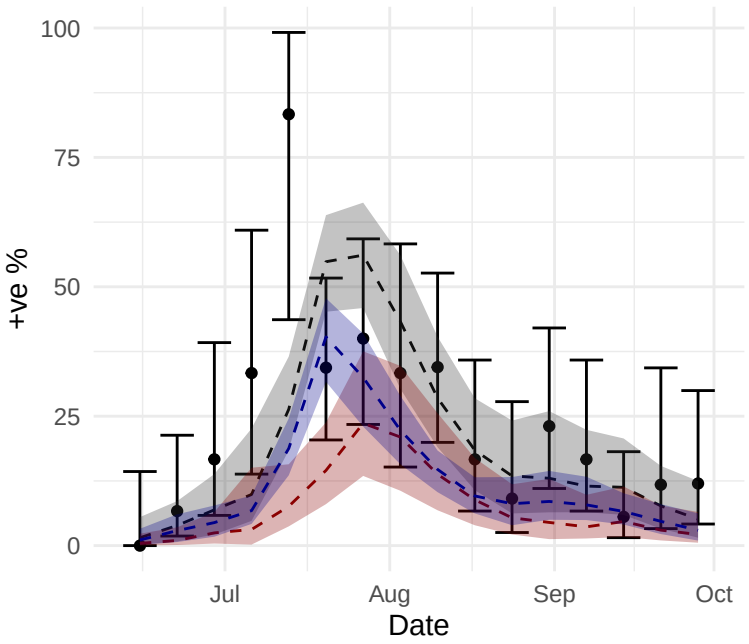
Age: 0−4; Pois ll = −49.8
Age: 5−9; Pois ll = −35.3
Age: 10−14; Pois ll = −29.2
Age: 15−19; Pois ll = −35.4
Age: 20−24; Pois ll = −45.2
Age: 25−29; Pois ll = −42
Age: 30−34; Pois ll = −51.5
Age: 35−39; Pois ll = −48.9
Age: 40−44; Pois ll = −48.4
Age: 45−49; Pois ll = −48.6
Age: 50−54; Pois ll = −45.5
Age: 55−59; Pois ll = −43.6
Age: 60−64; Pois ll = −42.3
Age: 65−69; Pois ll = −41.9
Age: 70−74; Pois ll = −41.5
Age: 75−79; Pois ll = −44.9
Age: 80+; Pois ll = −49.7

Deaths
0
20
40
60
Jul
Aug
Sep
Oct
Date

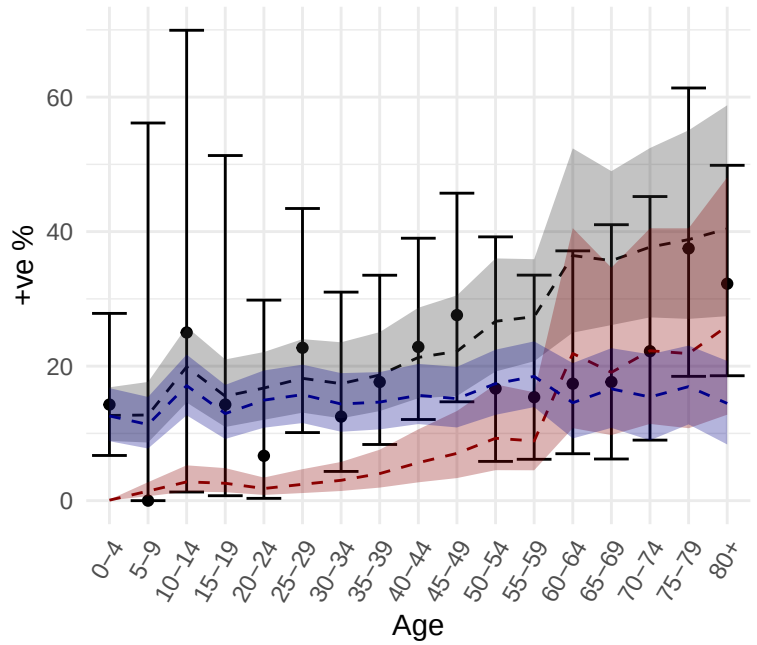
Mortuary deaths
Mortuary surveillance disrupted?
Model fit
Model fit (unstandardised)

IFR x 2.5, Slope x 1
COVID−19 excess mortality: Comparison of MCMC results with squire results

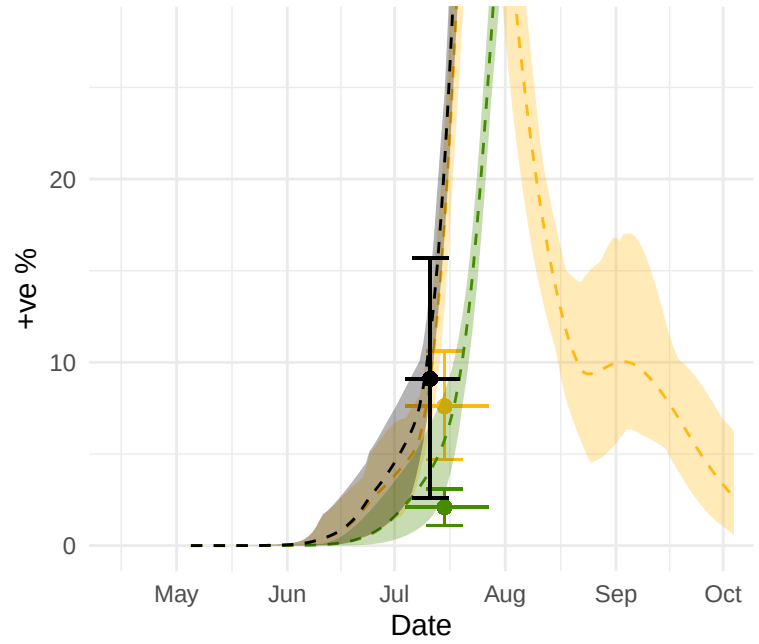
IFR x 0.2, Slope x 1.25
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

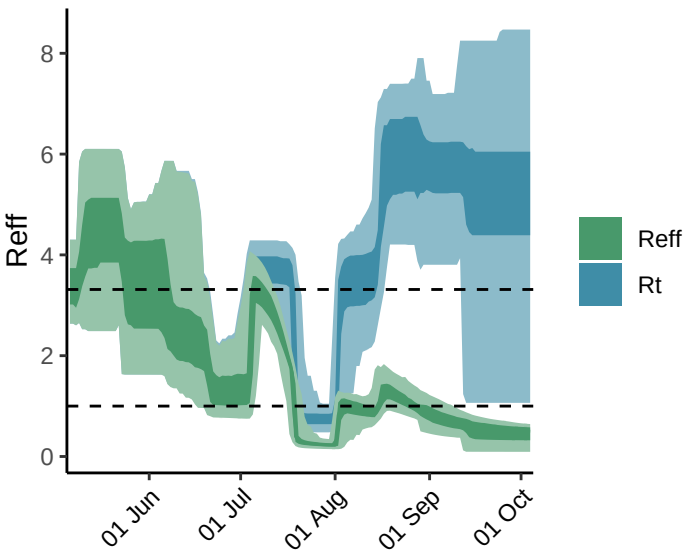


COVID−19 prevalence
Lusaka/Zambia

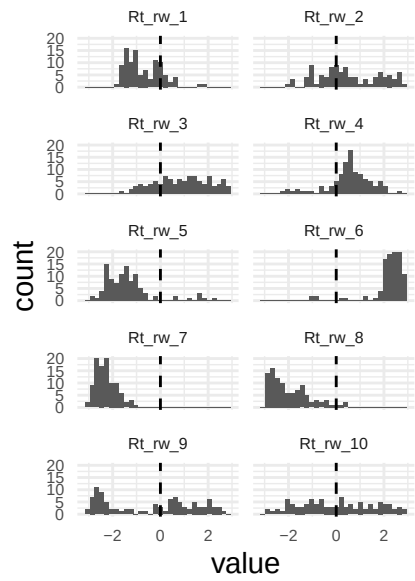


Total +ve deaths
Causal deaths
Coincidental deaths

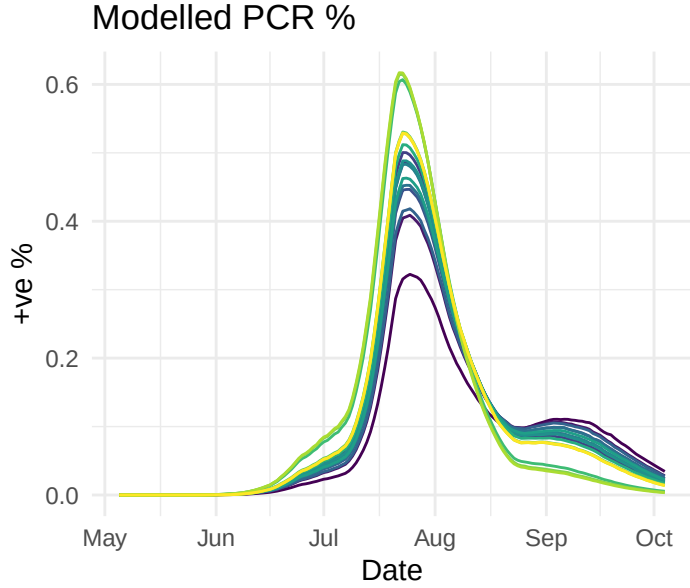
Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)



Reff
Rt

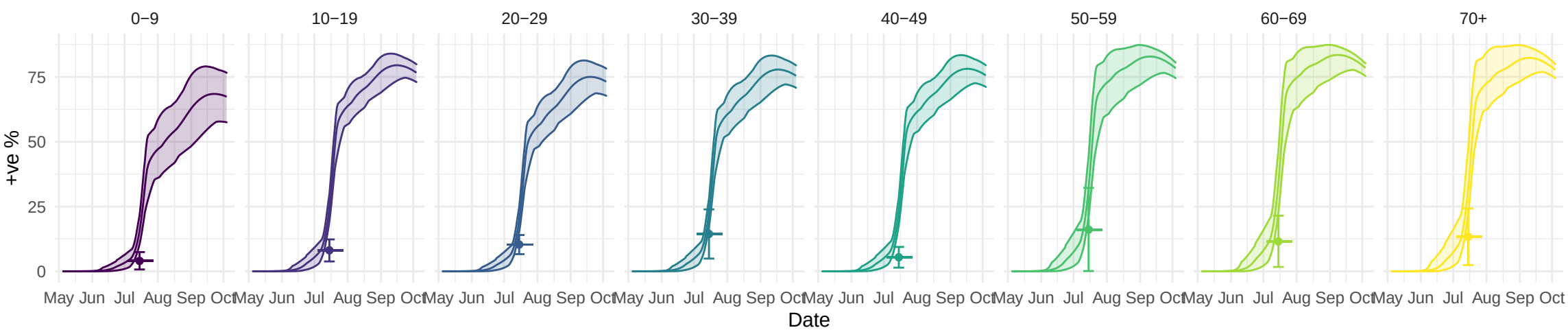


Modelled PCR %



Age: 0−4
Age: 5−9
Age: 10−14
Age: 15−19
Age: 20−24
Age: 25−29
Age: 30−34
Age: 35−39
Age: 40−44
Age: 45−49
Age: 50−54
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



IFR x 0.2, Slope x 1.25
COVID−19 weekly deaths (Mortuary)

Age: 0−4; Pois ll = −49.8
Age: 5−9; Pois ll = −34.4
Age: 10−14; Pois ll = −27.9
Age: 15−19; Pois ll = −34.9
Age: 20−24; Pois ll = −47.1
Age: 25−29; Pois ll = −42.9
Age: 30−34; Pois ll = −52.1
Age: 35−39; Pois ll = −49.7
Age: 40−44; Pois ll = −48.9
Age: 45−49; Pois ll = −51.7
Age: 50−54; Pois ll = −51.9
Age: 55−59; Pois ll = −51.4
Age: 60−64; Pois ll = −44.5
Age: 65−69; Pois ll = −44.7
Age: 70−74; Pois ll = −42.7
Age: 75−79; Pois ll = −45
Age: 80+; Pois ll = −50.8

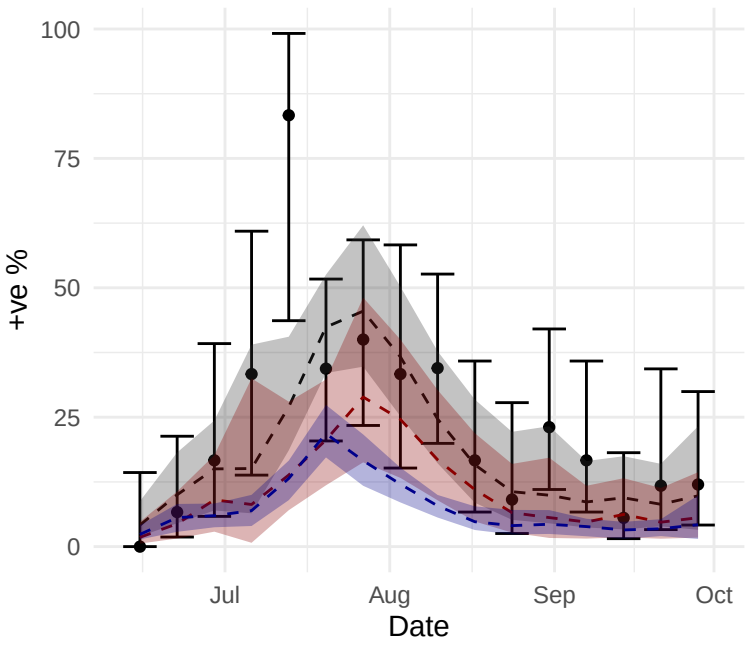
Deaths
0
20
40
60
Jul
Aug
Sep
Oct
Date

Mortuary deaths
Mortuary surveillance disrupted?
Model fit
Model fit (unstandardised)

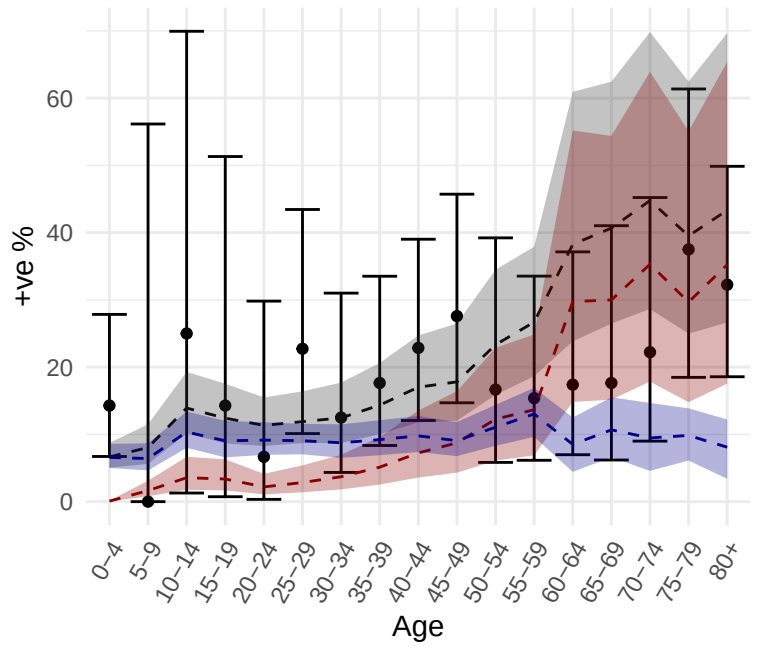
IFR x 0.2, Slope x 1.25

COVID−19 excess mortality: Comparison of MCMC results with squire results

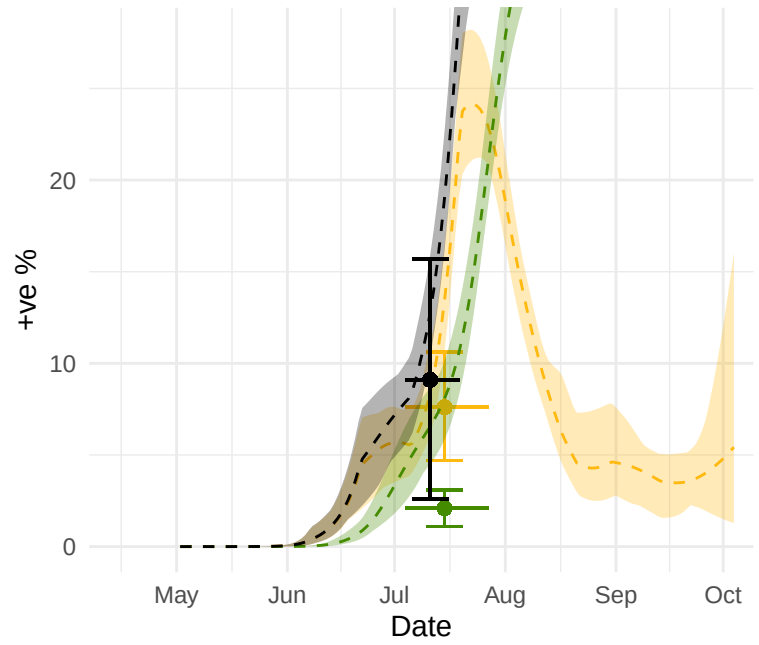
IFR x 0.4, Slope x 1.25
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

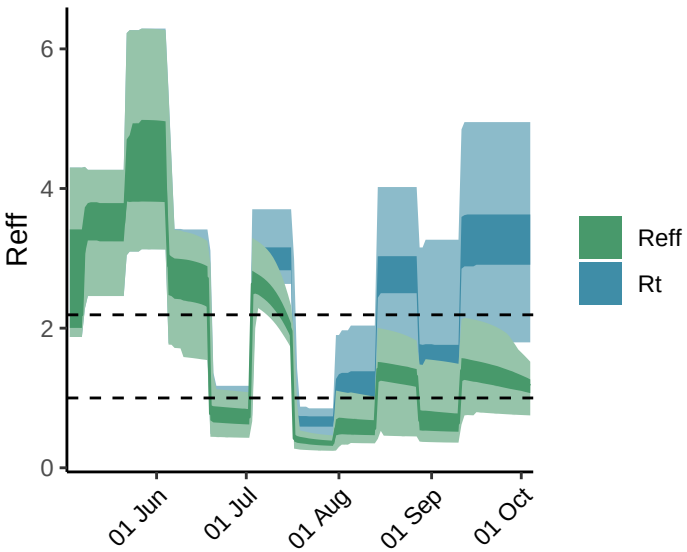


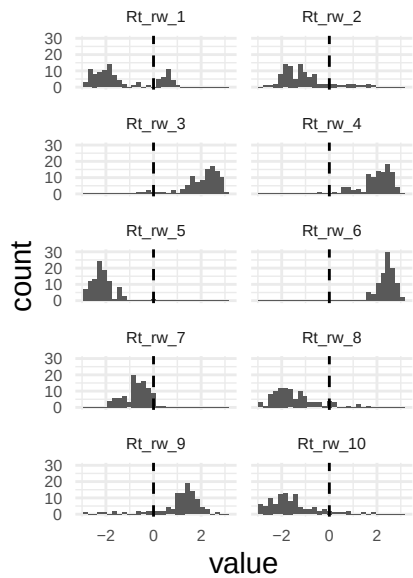
COVID−19 prevalence
Lusaka/Zambia



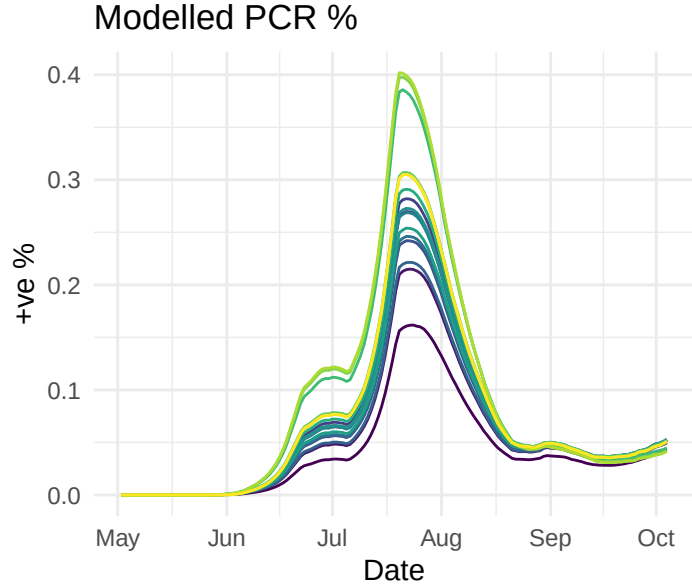
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)



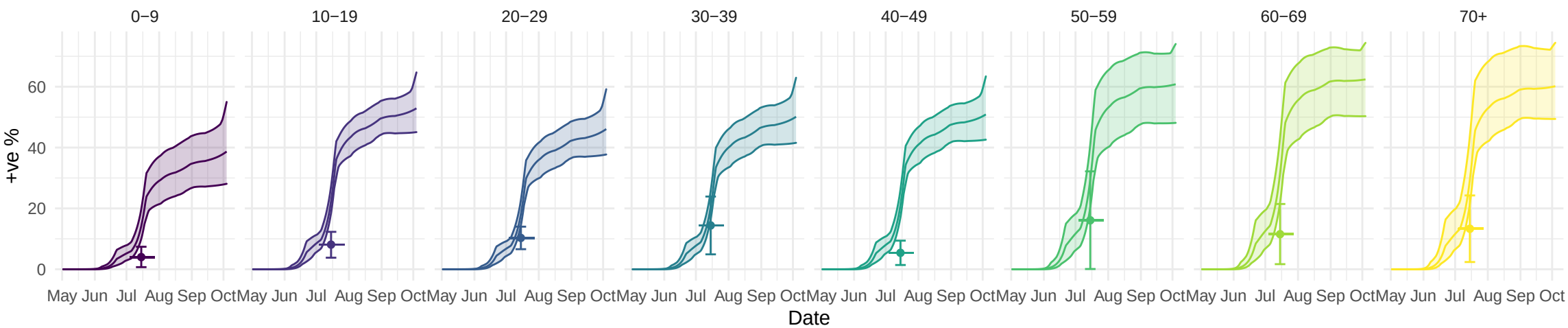


Modelled PCR %

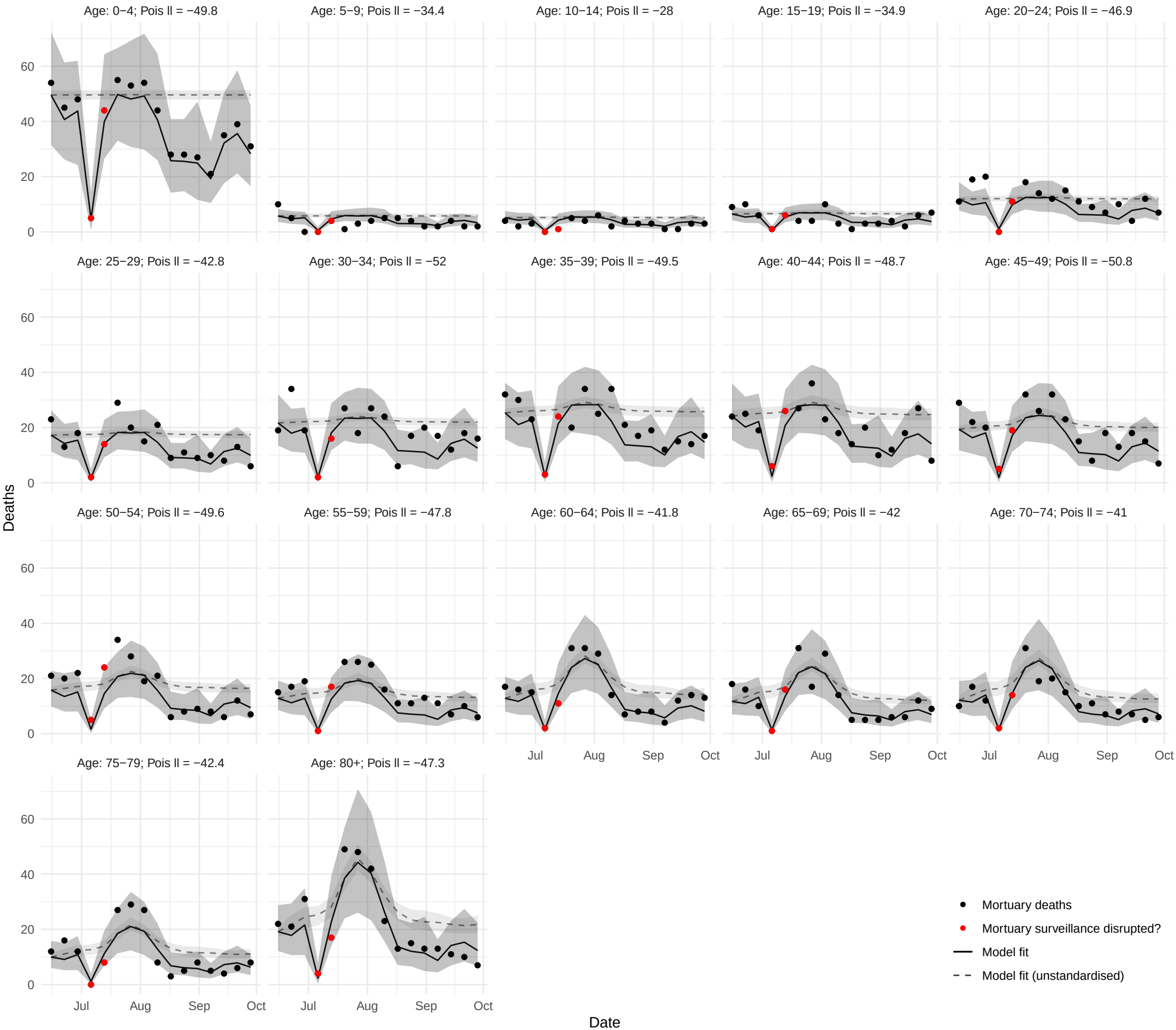


Age: 0−4
Age: 5−9
Age: 10−14
Age: 15−19
Age: 20−24
Age: 25−29
Age: 30−34
Age: 35−39
Age: 40−44
Age: 45−49
Age: 50−54
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia

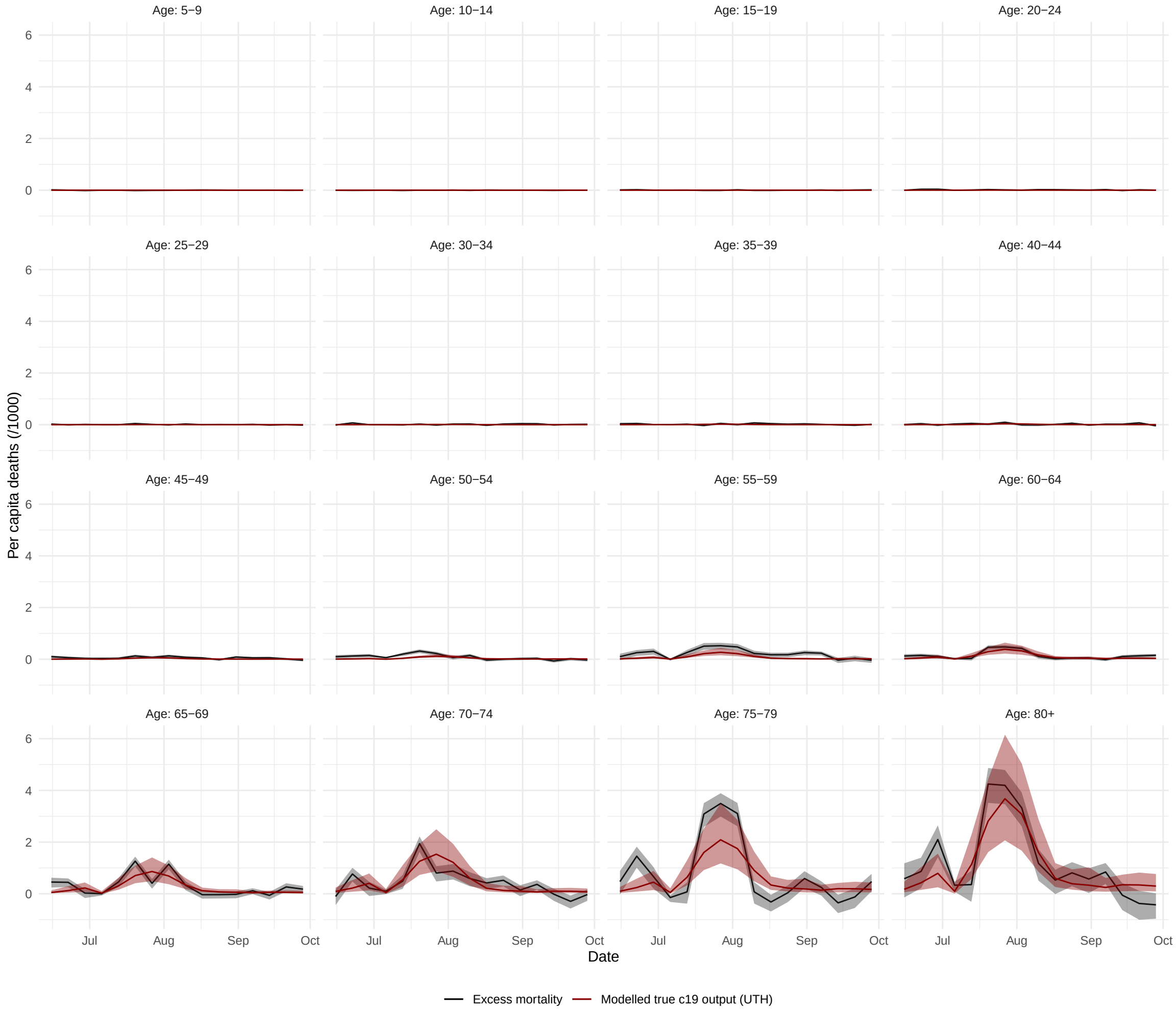


IFR x 0.4, Slope x 1.25
COVID−19 weekly deaths (Mortuary)

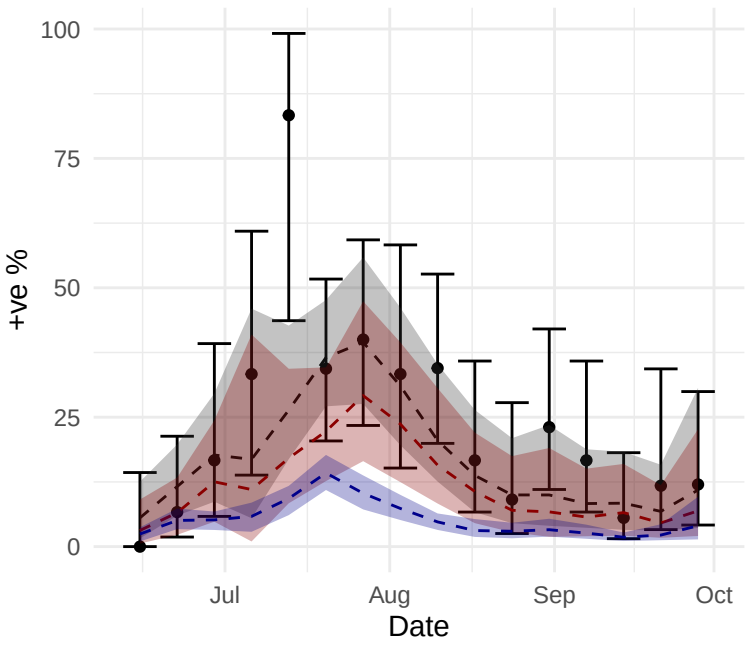


IFR x 0.4, Slope x 1.25

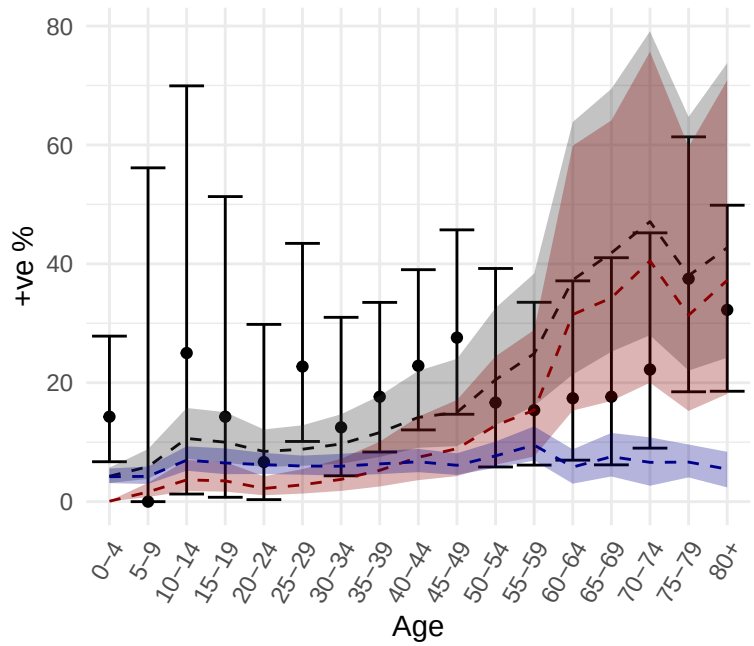
COVID−19 excess mortality: Comparison of MCMC results with squire results



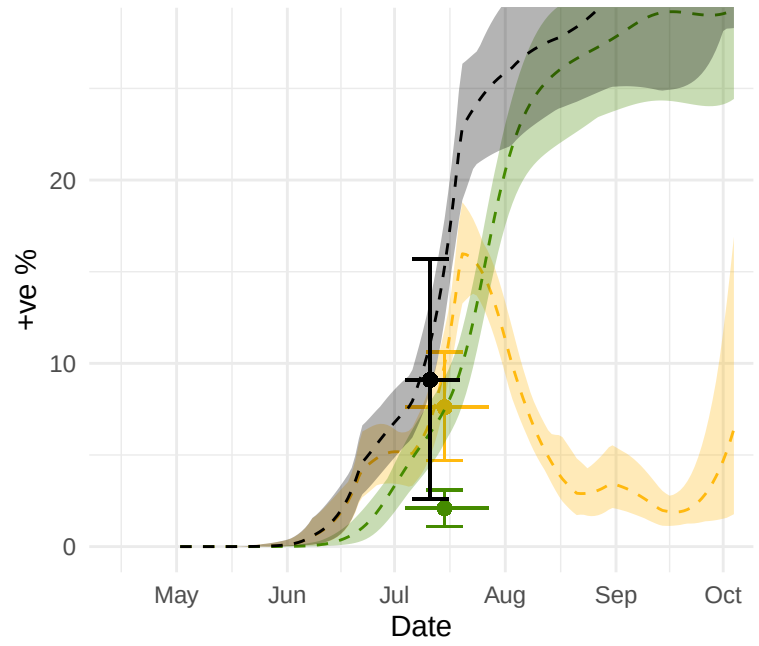
IFR x 0.6, Slope x 1.25
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

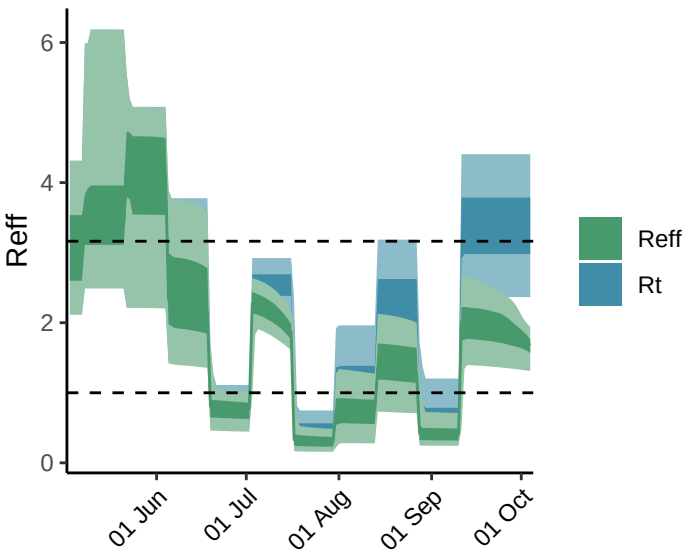


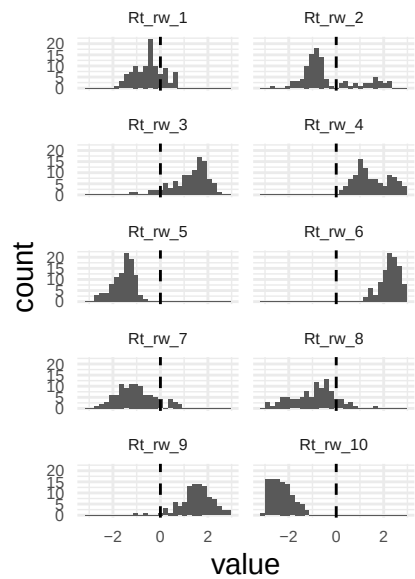
COVID−19 prevalence
Lusaka/Zambia



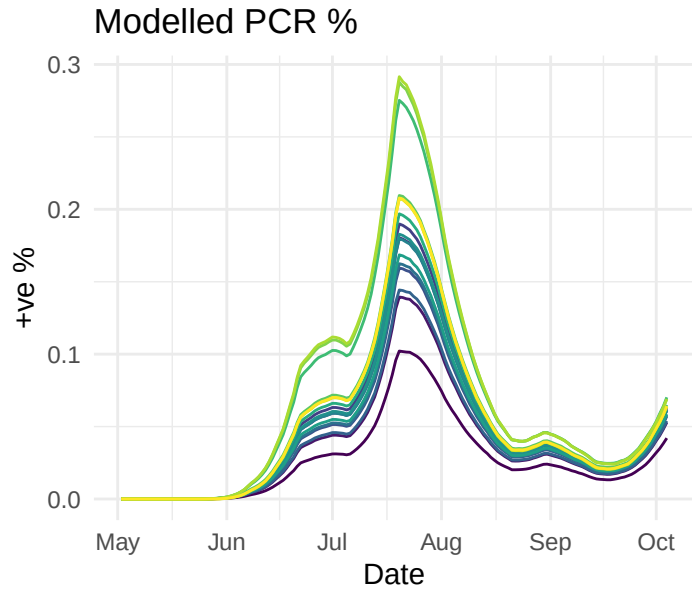
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)



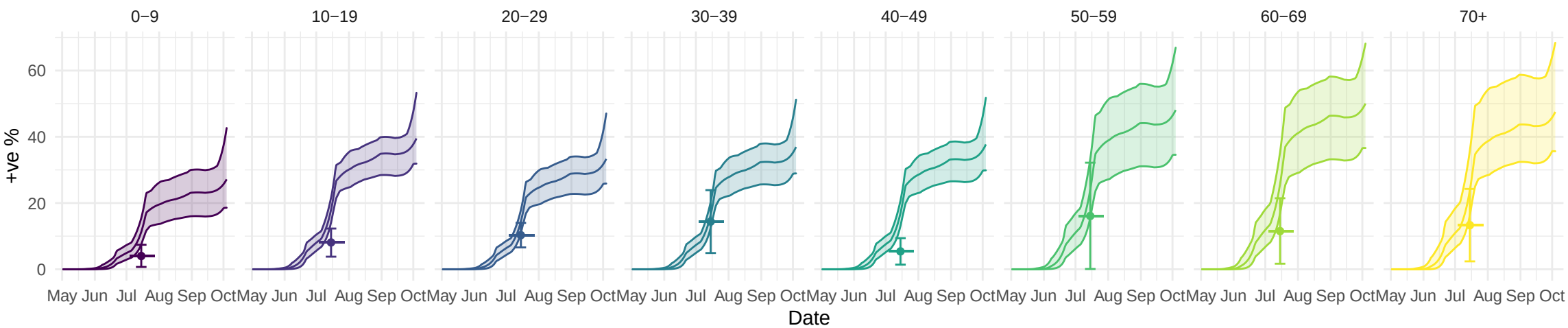


Modelled PCR %

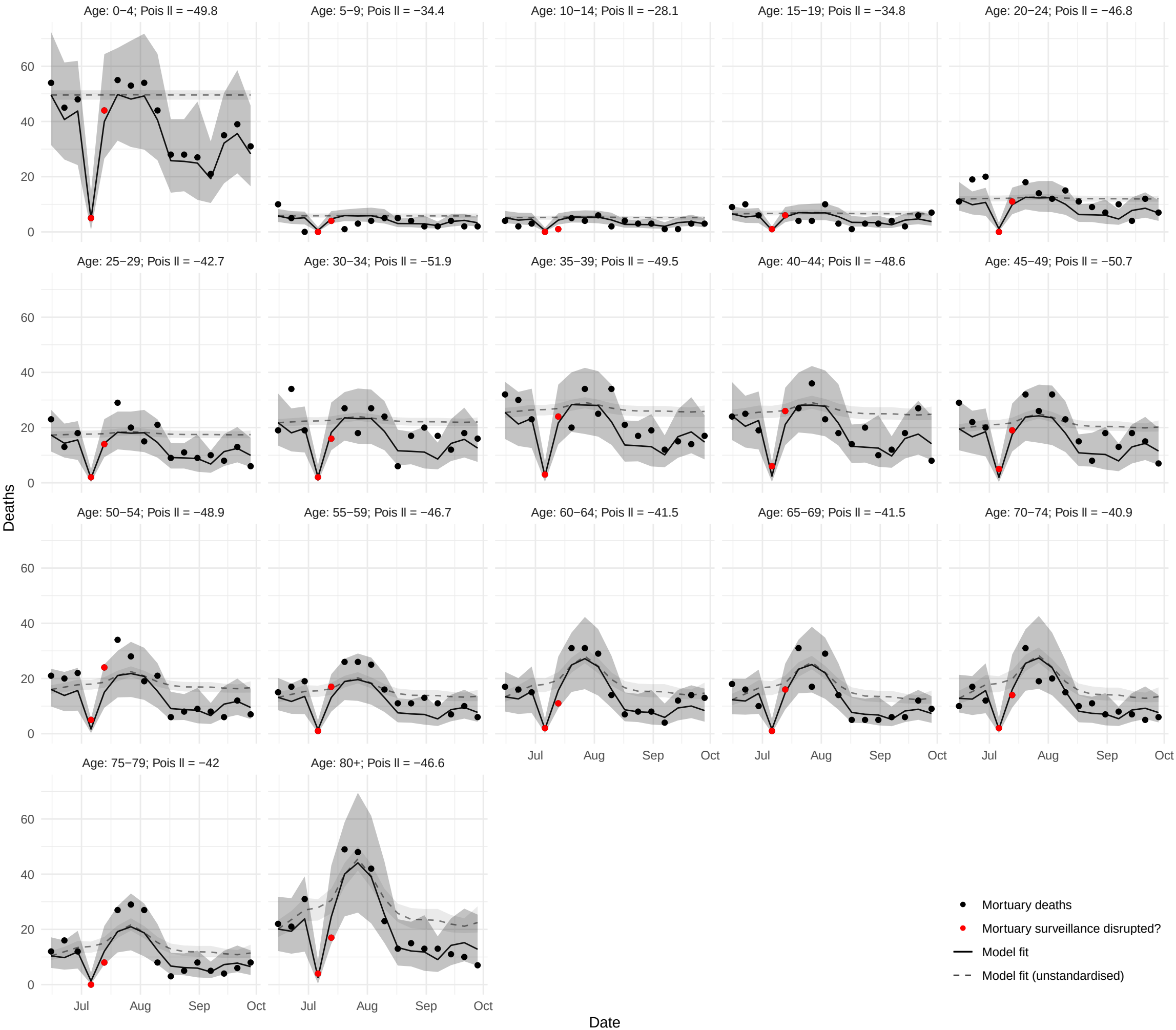


Age: 0−4
Age: 5−9
Age: 10−14
Age: 15−19
Age: 20−24
Age: 25−29
Age: 30−34
Age: 35−39
Age: 40−44
Age: 45−49
Age: 50−54
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia

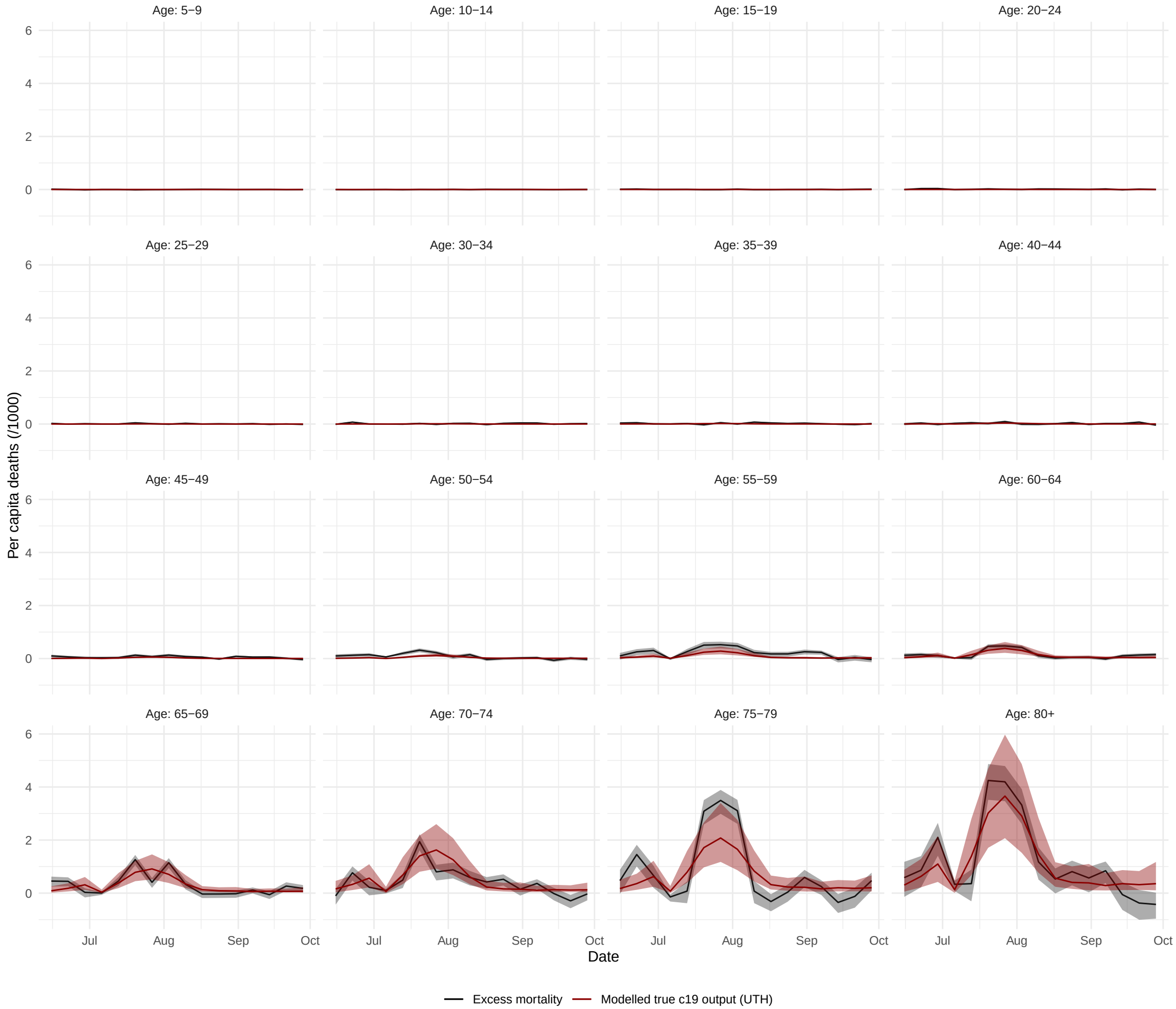


IFR x 0.6, Slope x 1.25
COVID−19 weekly deaths (Mortuary)

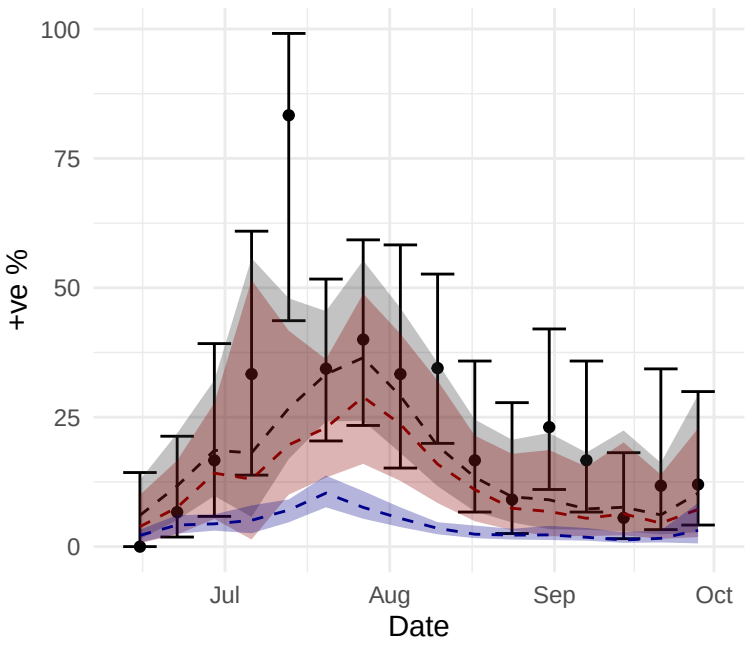


IFR x 0.6, Slope x 1.25

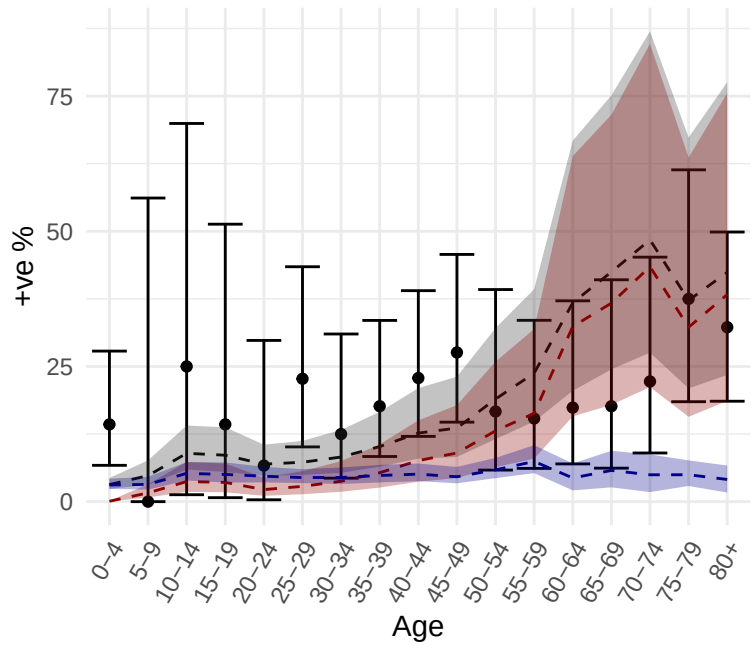
COVID−19 excess mortality: Comparison of MCMC results with squire results



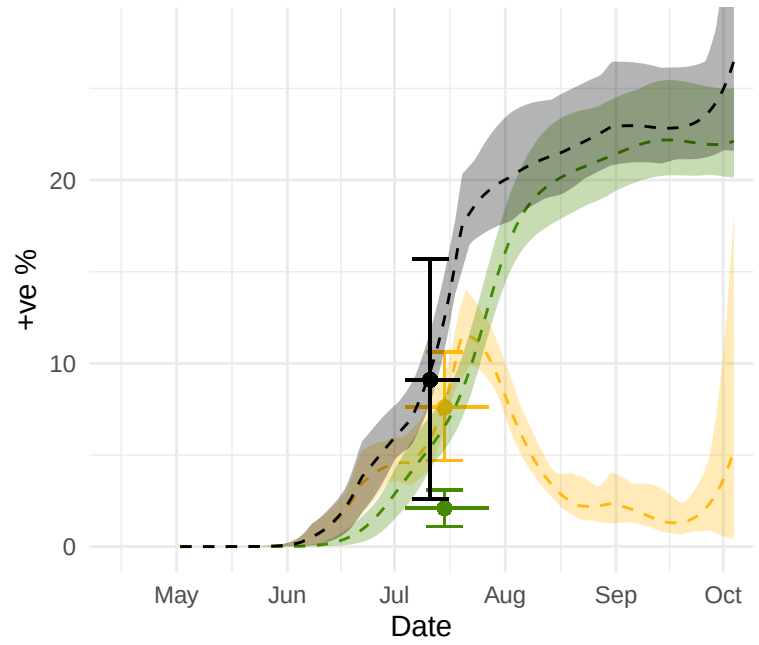
IFR x 0.8, Slope x 1.25
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

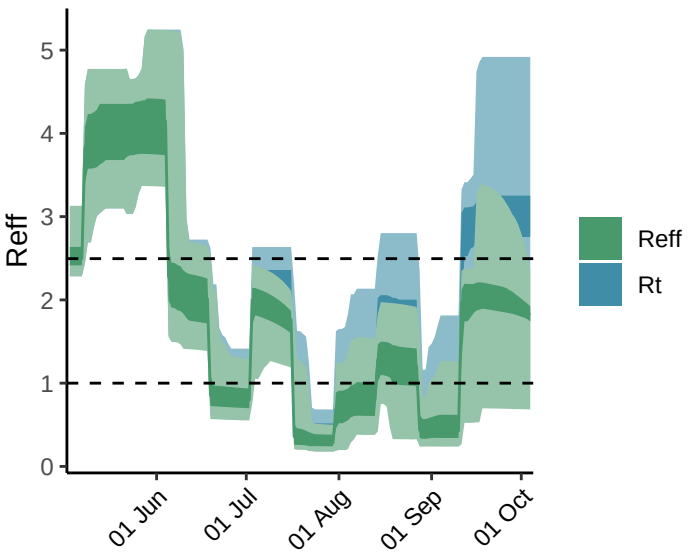


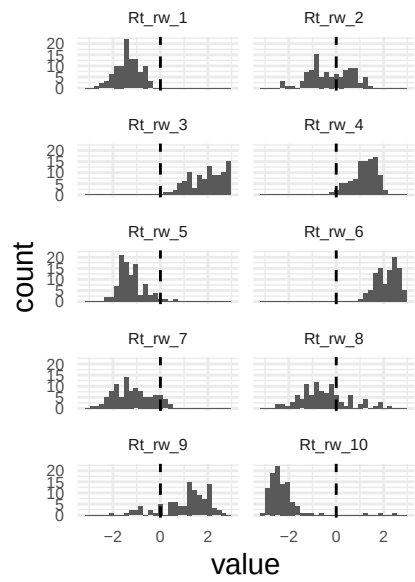
COVID−19 prevalence
Lusaka/Zambia



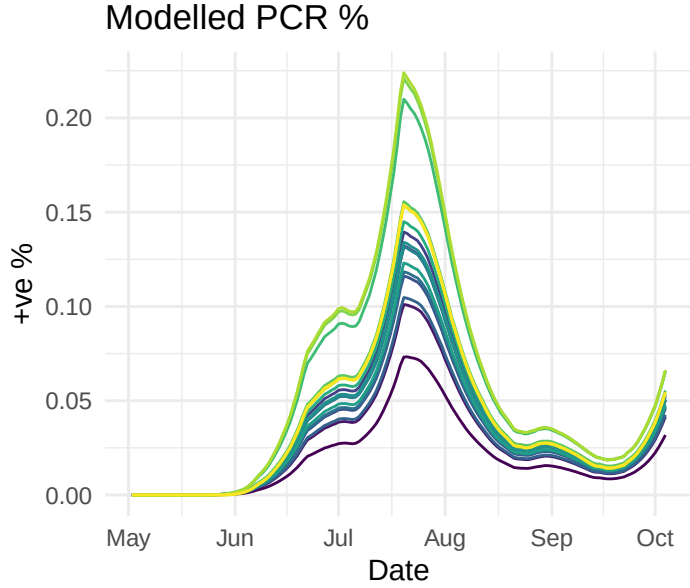
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)





Modelled PCR %



Age: 0−4
Age: 5−9
Age: 10−14
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Age: 20−24
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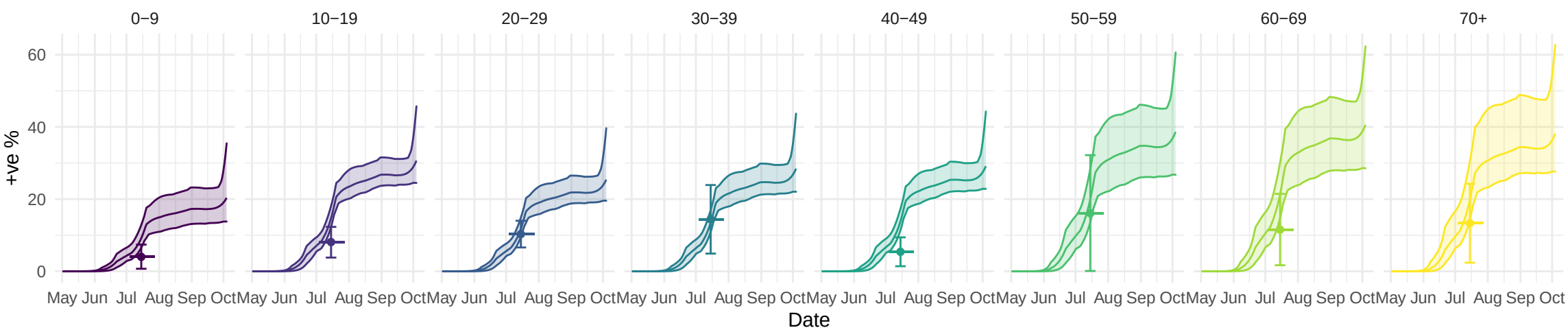
Age: 40−44
Age: 45−49
Age: 50−54
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



IFR x 0.8, Slope x 1.25
COVID−19 weekly deaths (Mortuary)

Age: 0−4; Pois ll = −49.8
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Deaths

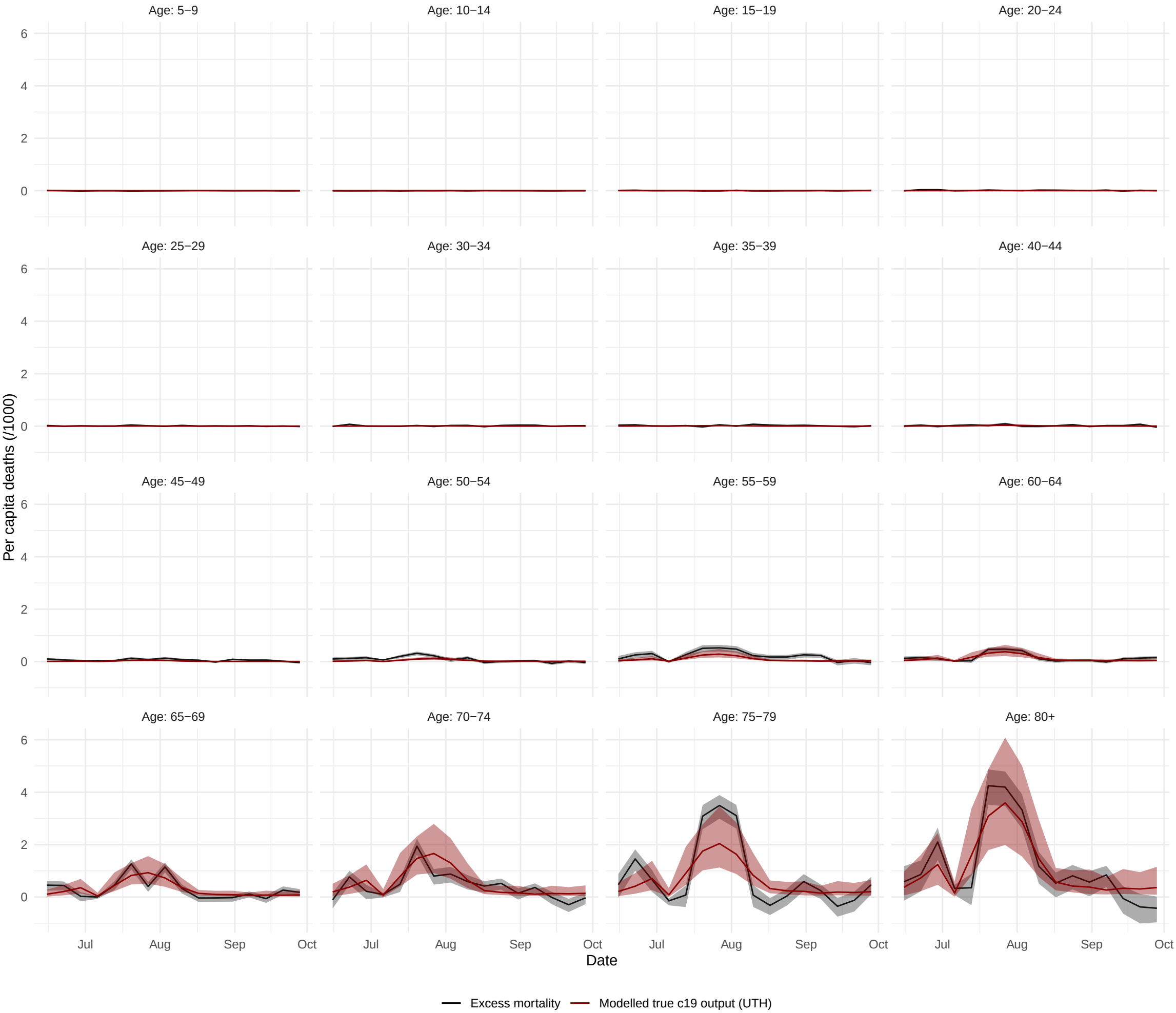
0
20
40
60

Jul
Aug
Sep
Oct

Date

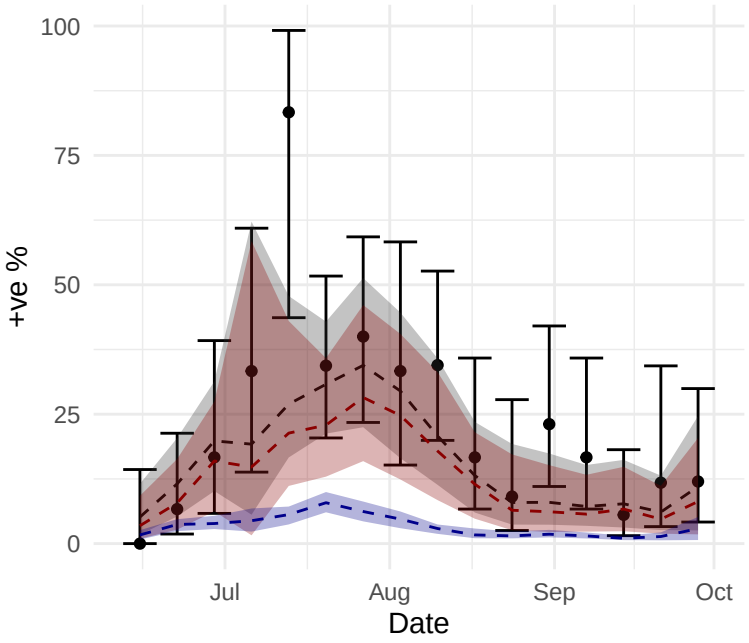
Mortuary deaths
Mortuary surveillance disrupted?
Model fit
Model fit (unstandardised)

IFR x 0.8, Slope x 1.25
COVID−19 excess mortality: Comparison of MCMC results with squire results

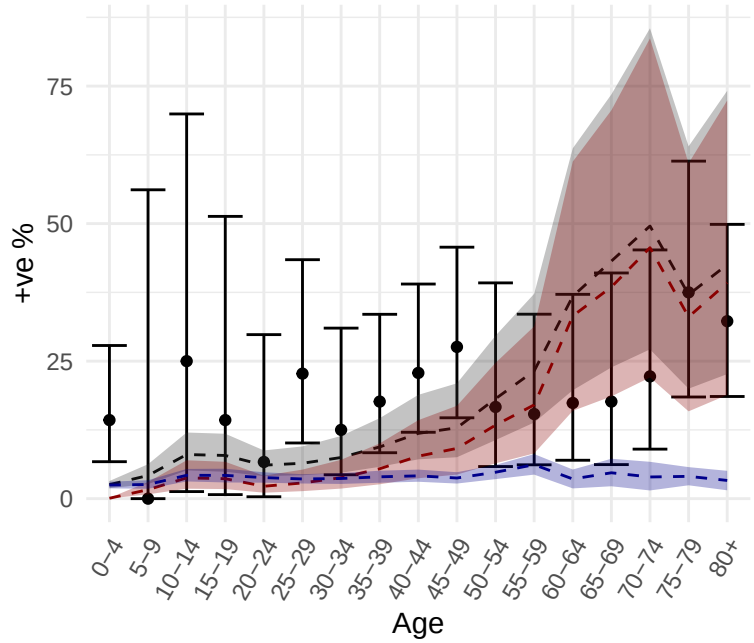


IFR x 1, Slope x 1.25

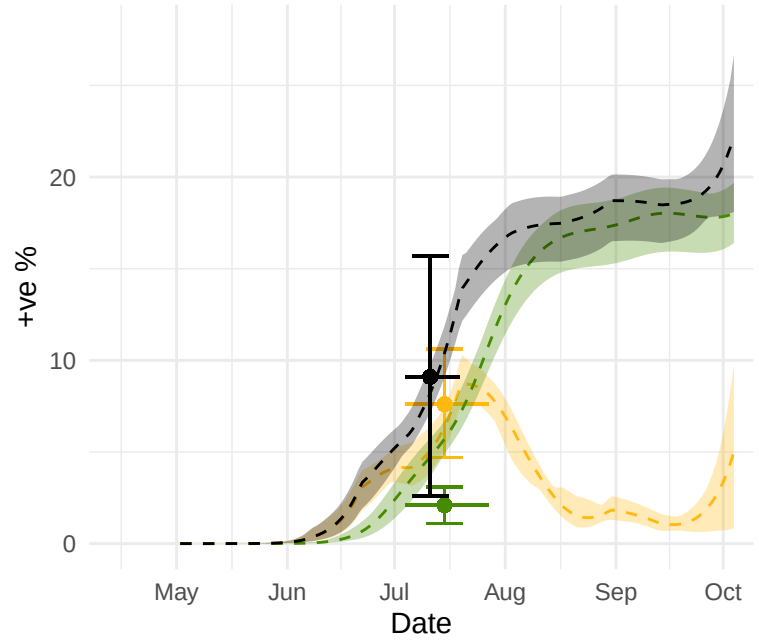
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

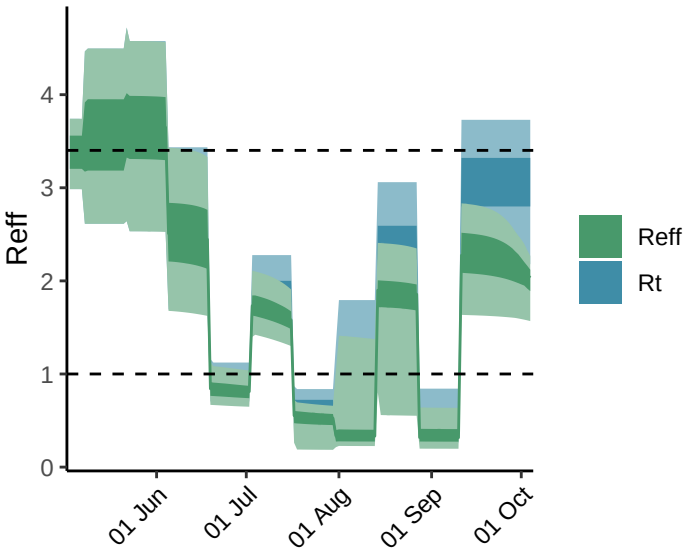


COVID−19 prevalence
Lusaka/Zambia

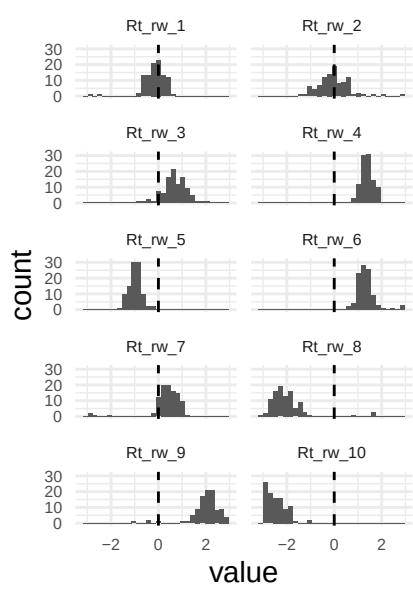


Total +ve deaths
Causal deaths
Coincidental deaths

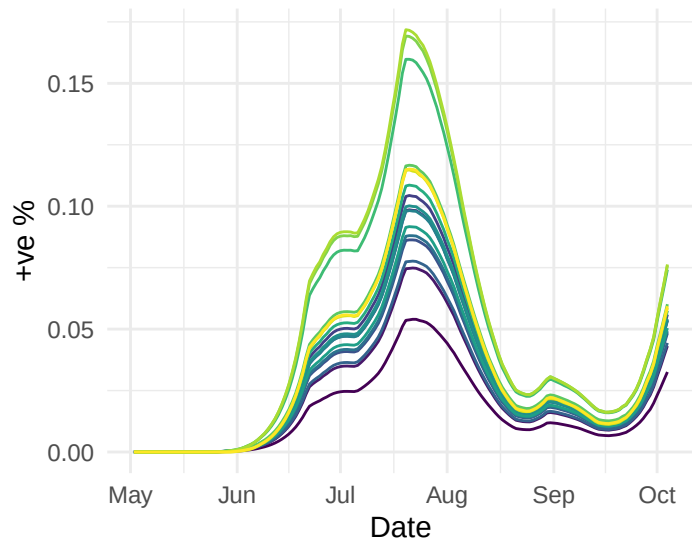
Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)



Reff
Rt



Modelled PCR %



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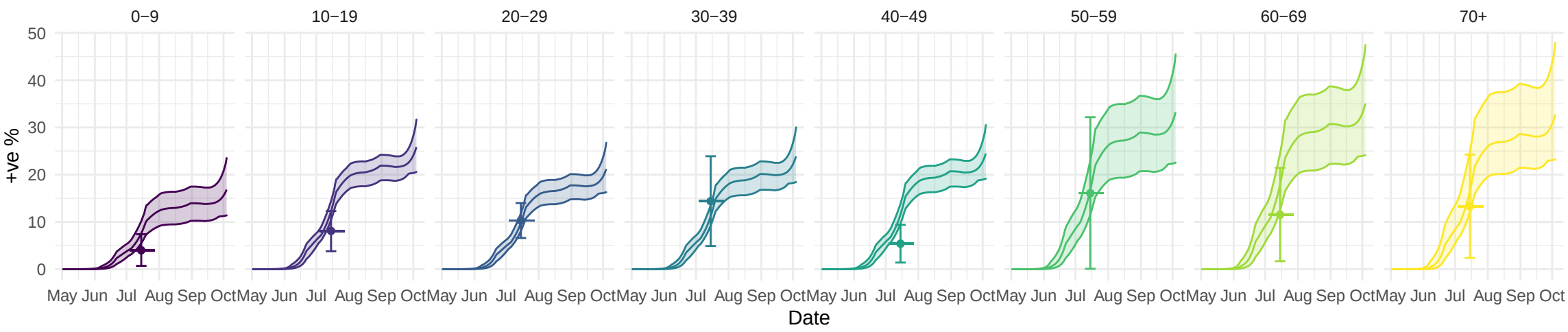
Age: 55−59
Age: 60−64
Age: 65−69
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



IFR x 1, Slope x 1.25
COVID−19 weekly deaths (Mortuary)

Age: 0−4; Pois ll = −49.8
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0
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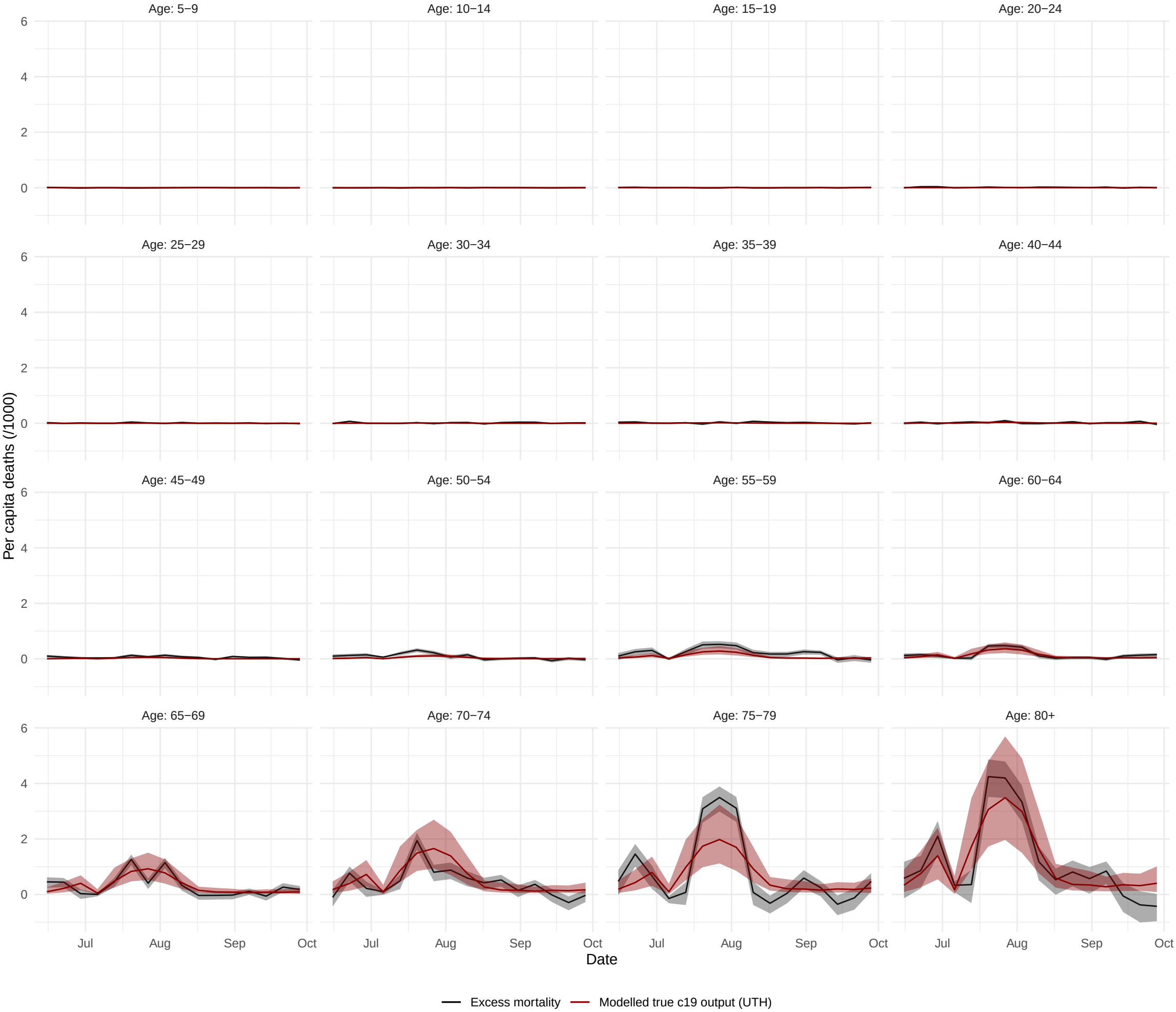
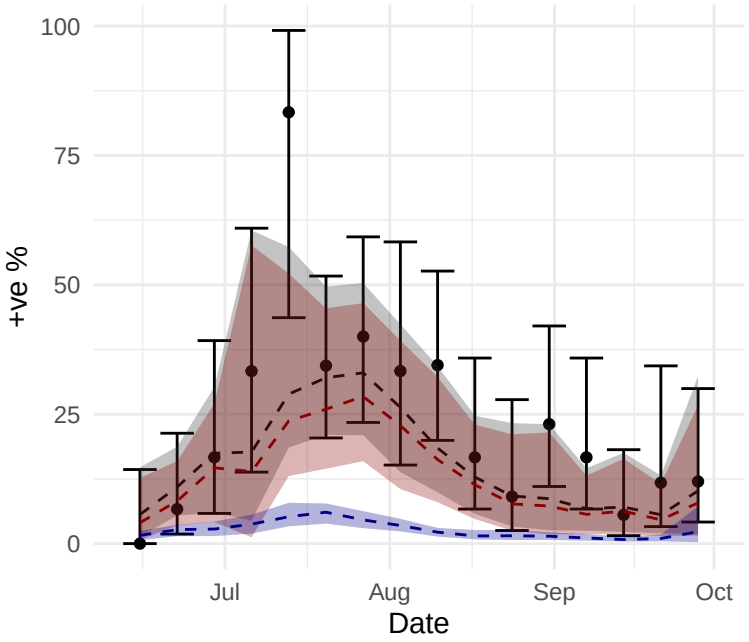
Date

Mortuary deaths
Mortuary surveillance disrupted?
Model fit
Model fit (unstandardised)

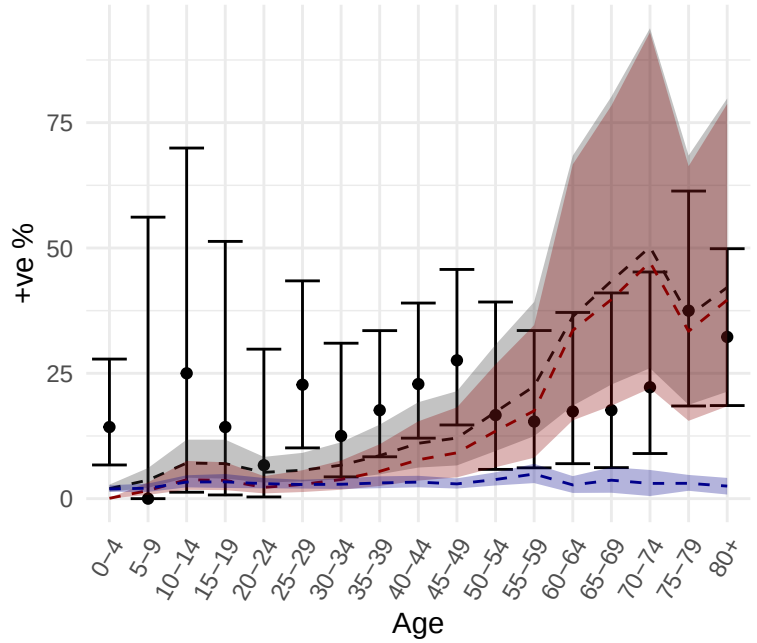
IFR x 1, Slope x 1.25
COVID−19 excess mortality: Comparison of MCMC results with squire results



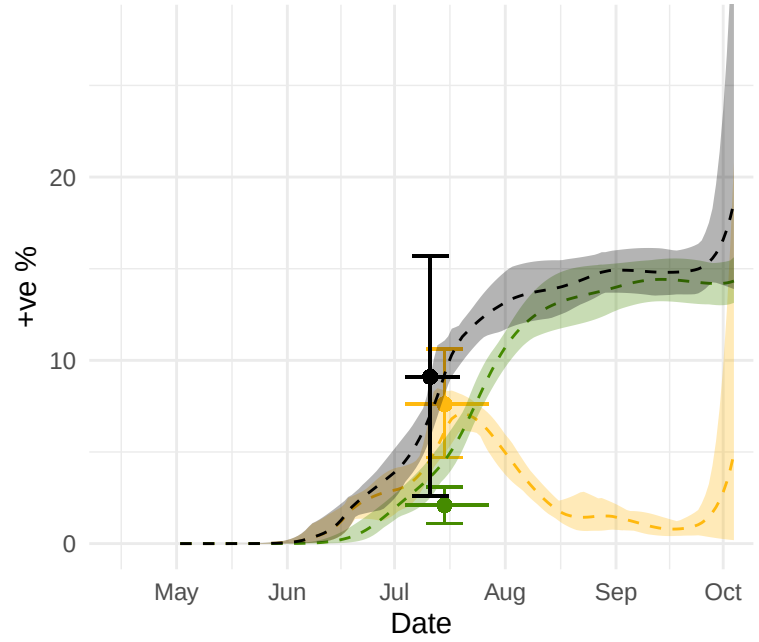
IFR x 1.25, Slope x 1.25
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

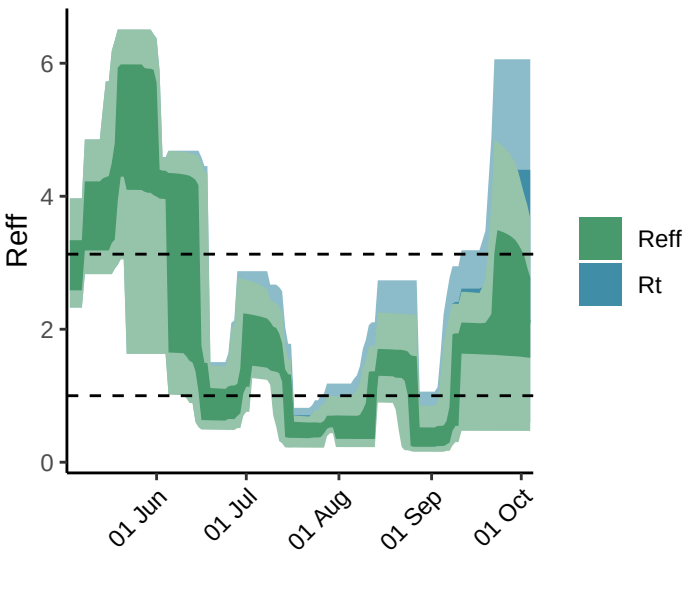


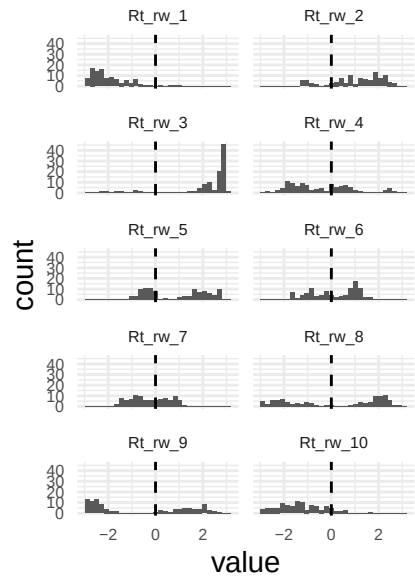
COVID−19 prevalence
Lusaka/Zambia



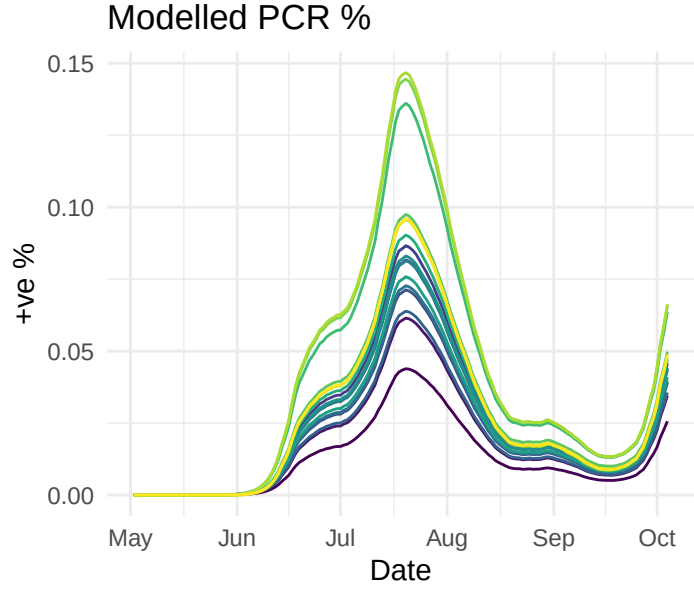
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)





Modelled PCR %



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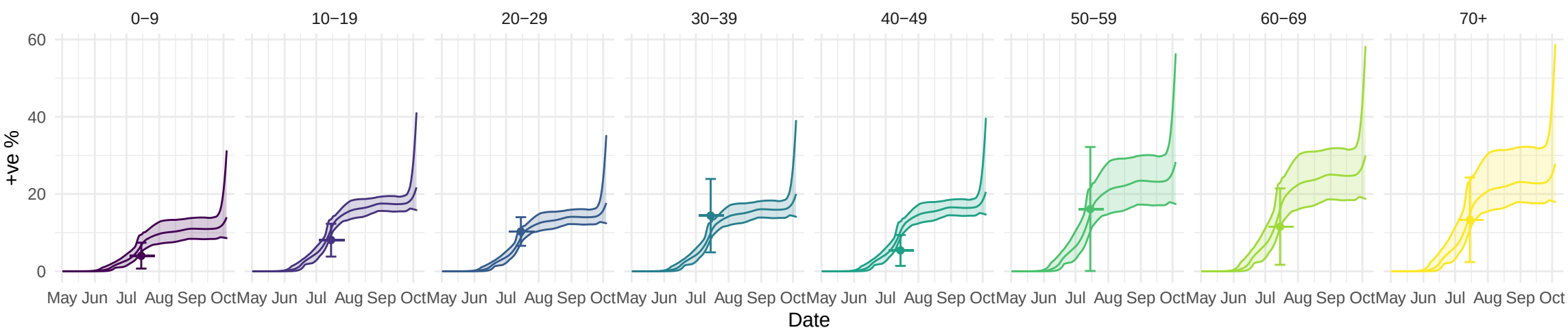
Age: 70−74
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



IFR x 1.25, Slope x 1.25
COVID−19 weekly deaths (Mortuary)

Age: 0−4; Pois ll = −49.8
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Deaths

0
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40
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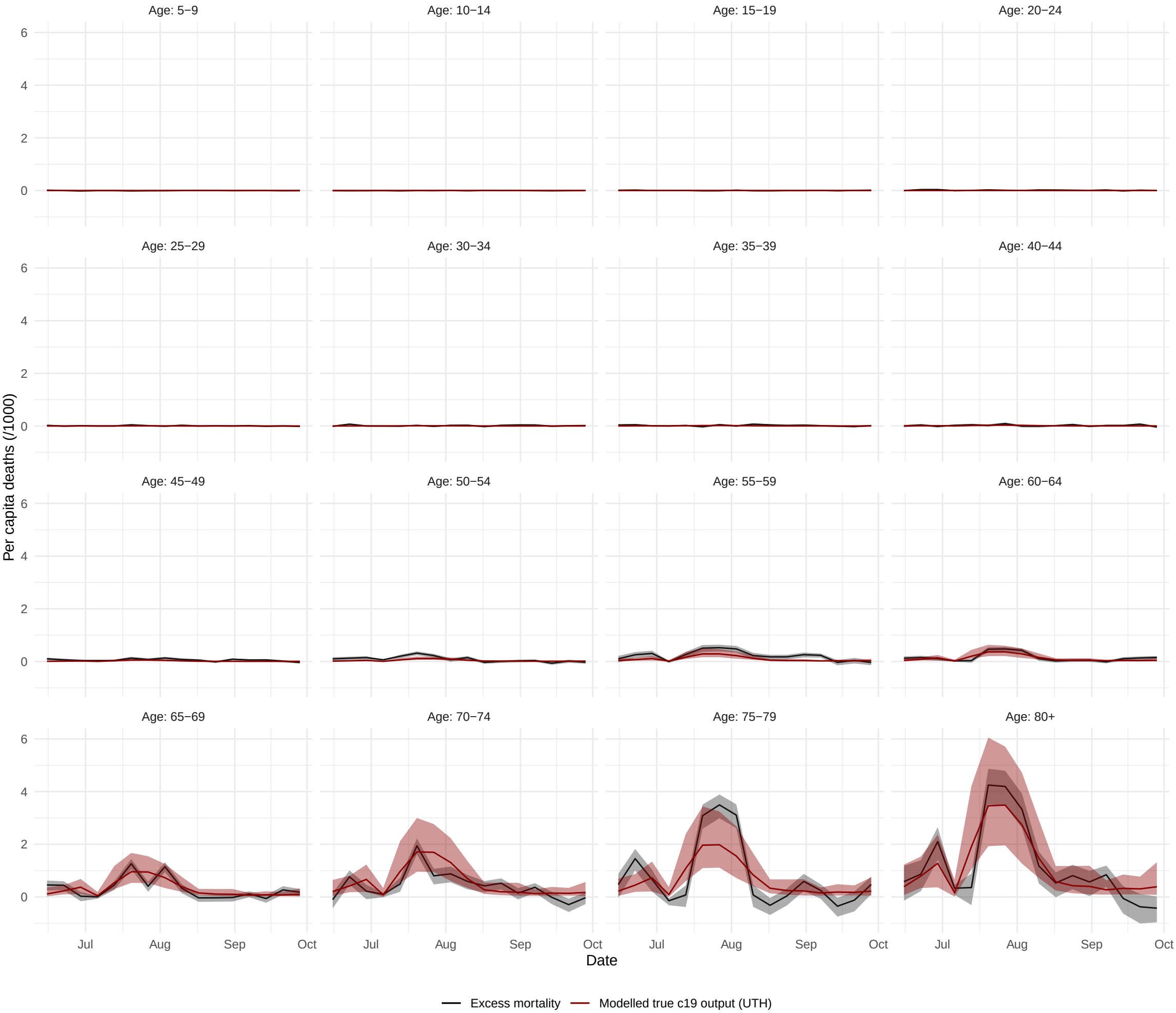
Jul
Aug
Sep
Oct

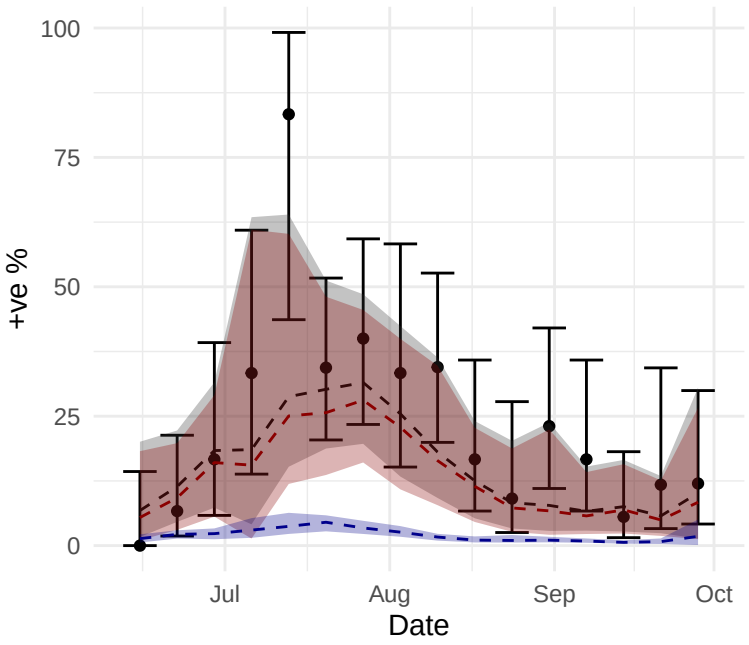
Date

Mortuary deaths
Mortuary surveillance disrupted?
Model fit
Model fit (unstandardised)

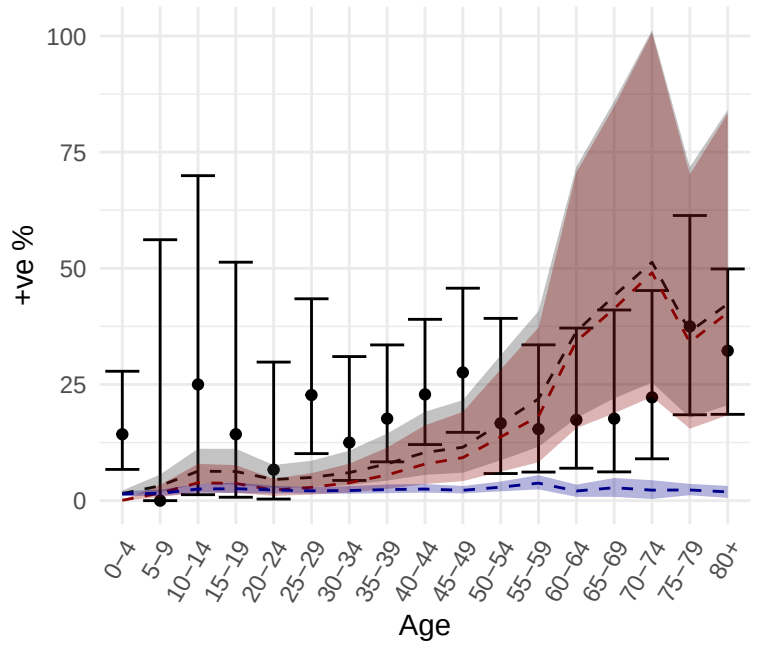
IFR x 1.25, Slope x 1.25
COVID−19 excess mortality: Comparison of MCMC results with squire results



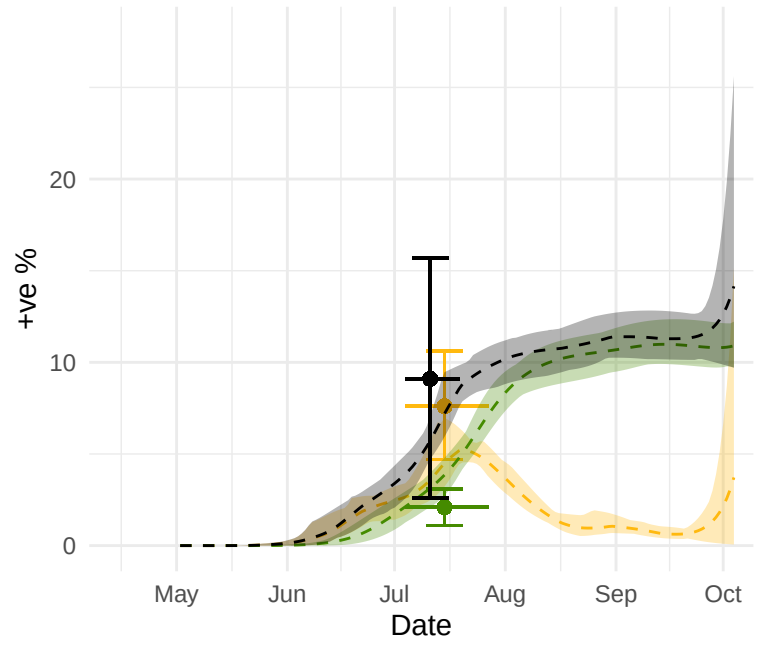
IFR x 1.67, Slope x 1.25
COVID−19 weekly prevalence
UTH mortuary



COVID−19 prevalence by age
UTH mortuary

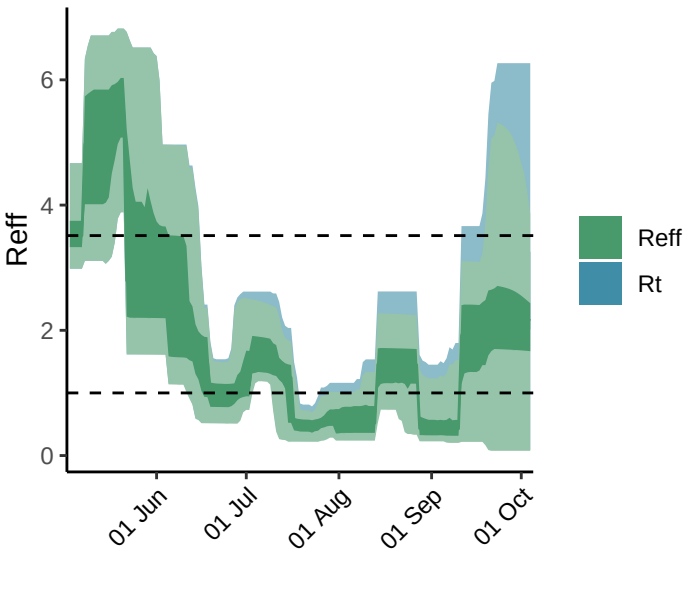


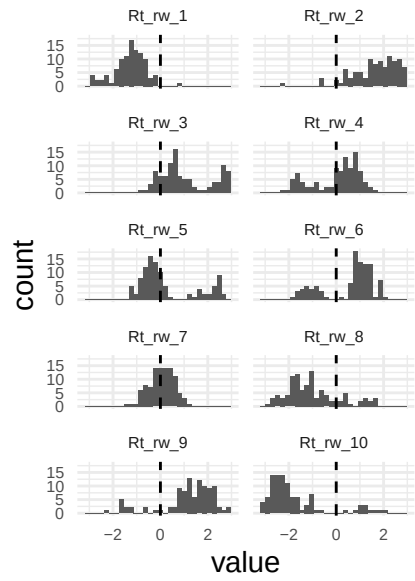
COVID−19 prevalence
Lusaka/Zambia



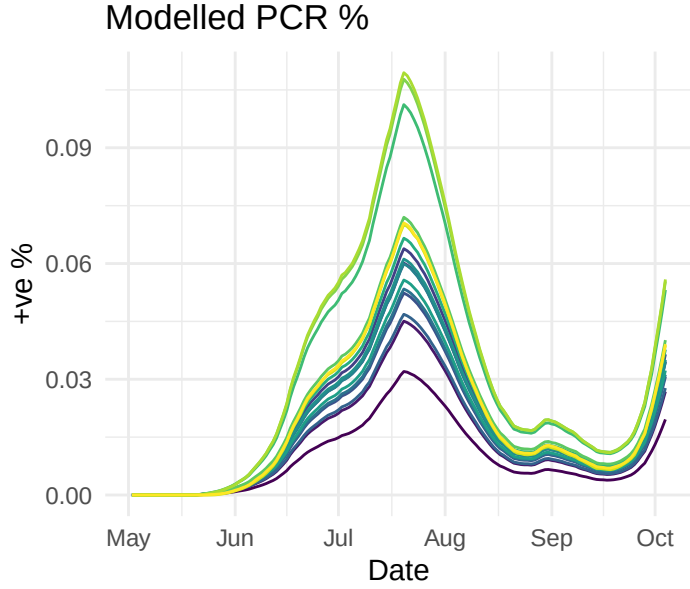
Total +ve deaths
Causal deaths
Coincidental deaths

Combined % (Lusaka)
PCR % (Zambia)
Sero % (Zambia)





Modelled PCR %



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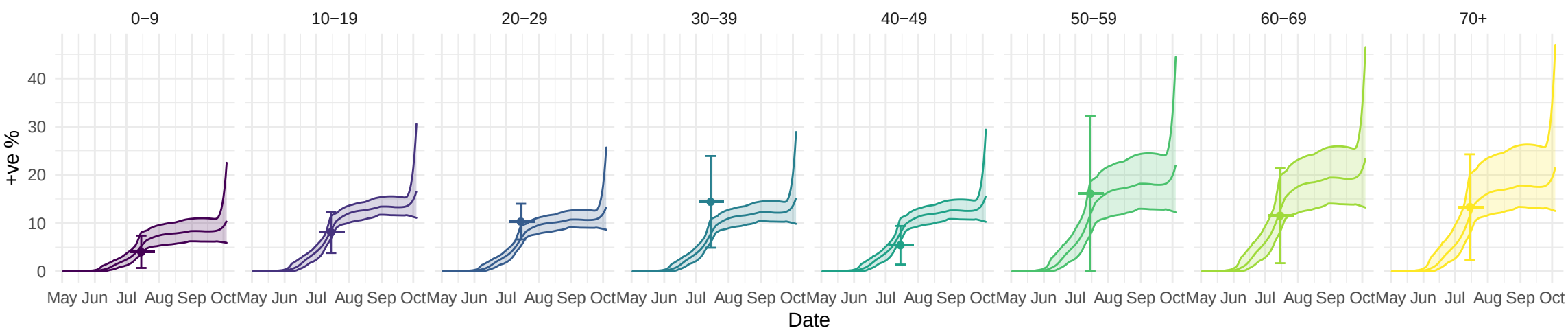
Age: 75−79
Age: 80+

Modelled combined prevalence, Lusaka/Zambia



IFR x 1.67, Slope x 1.25
COVID−19 weekly deaths (Mortuary)

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Mortuary deaths
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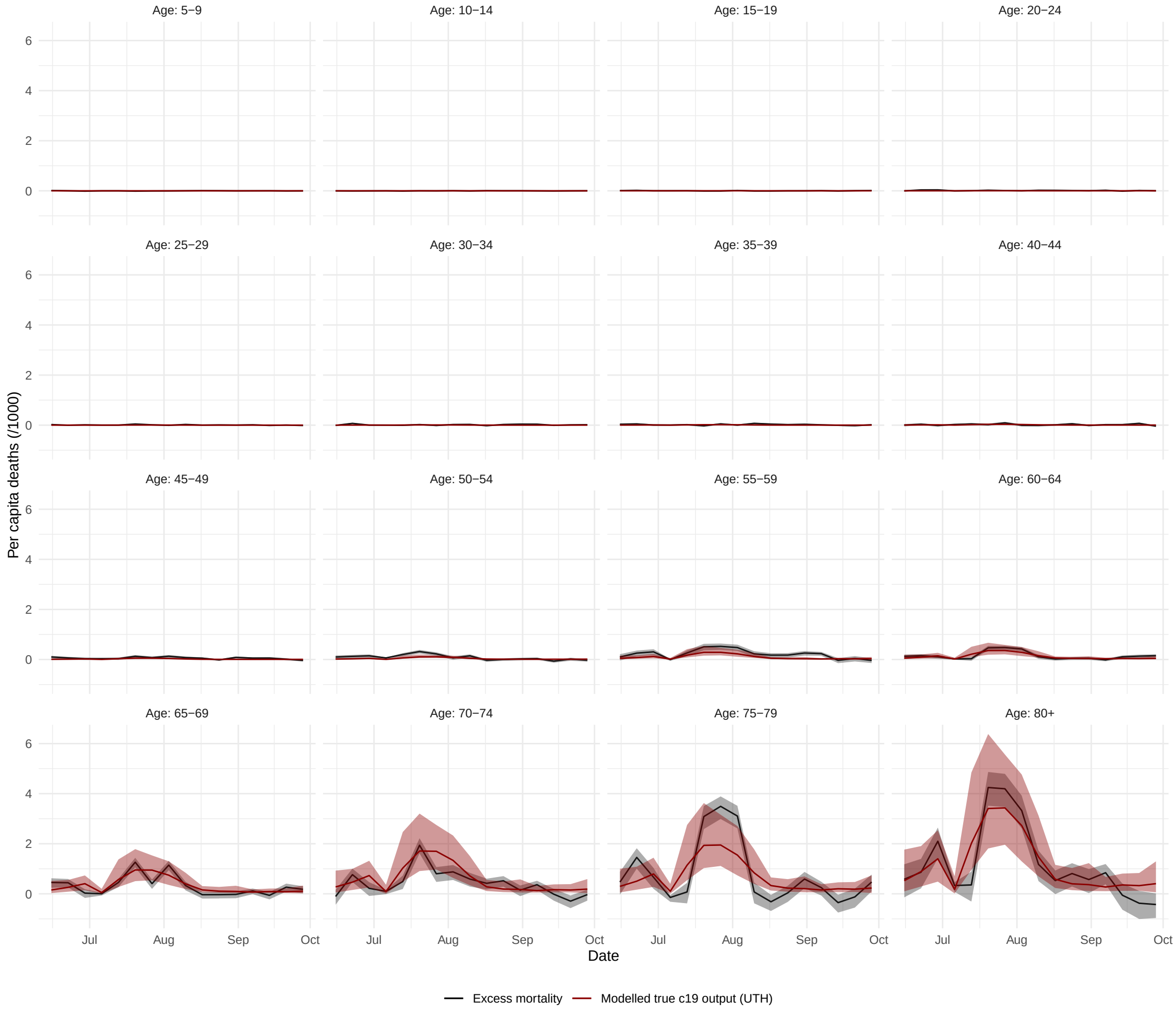
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