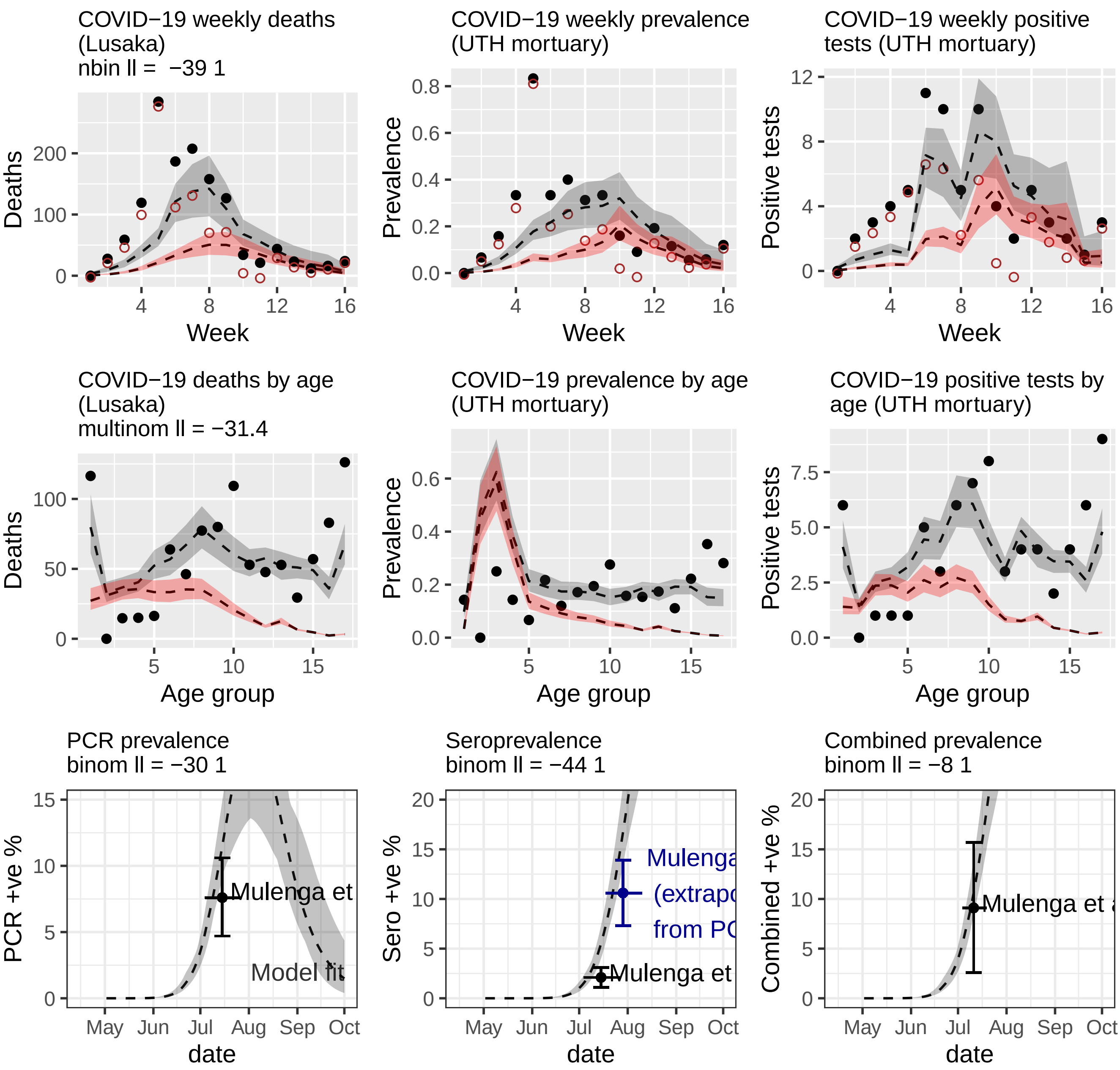
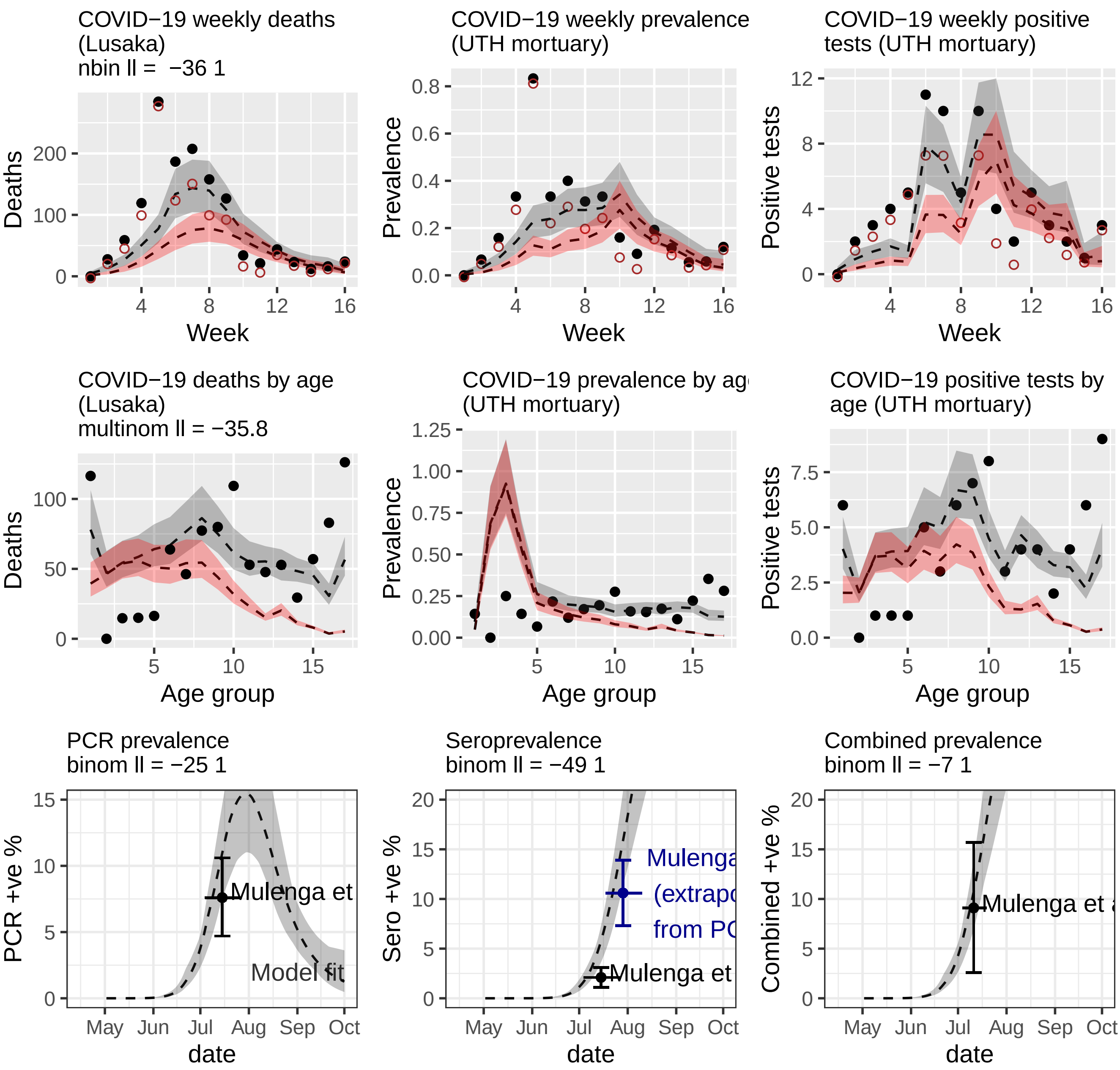
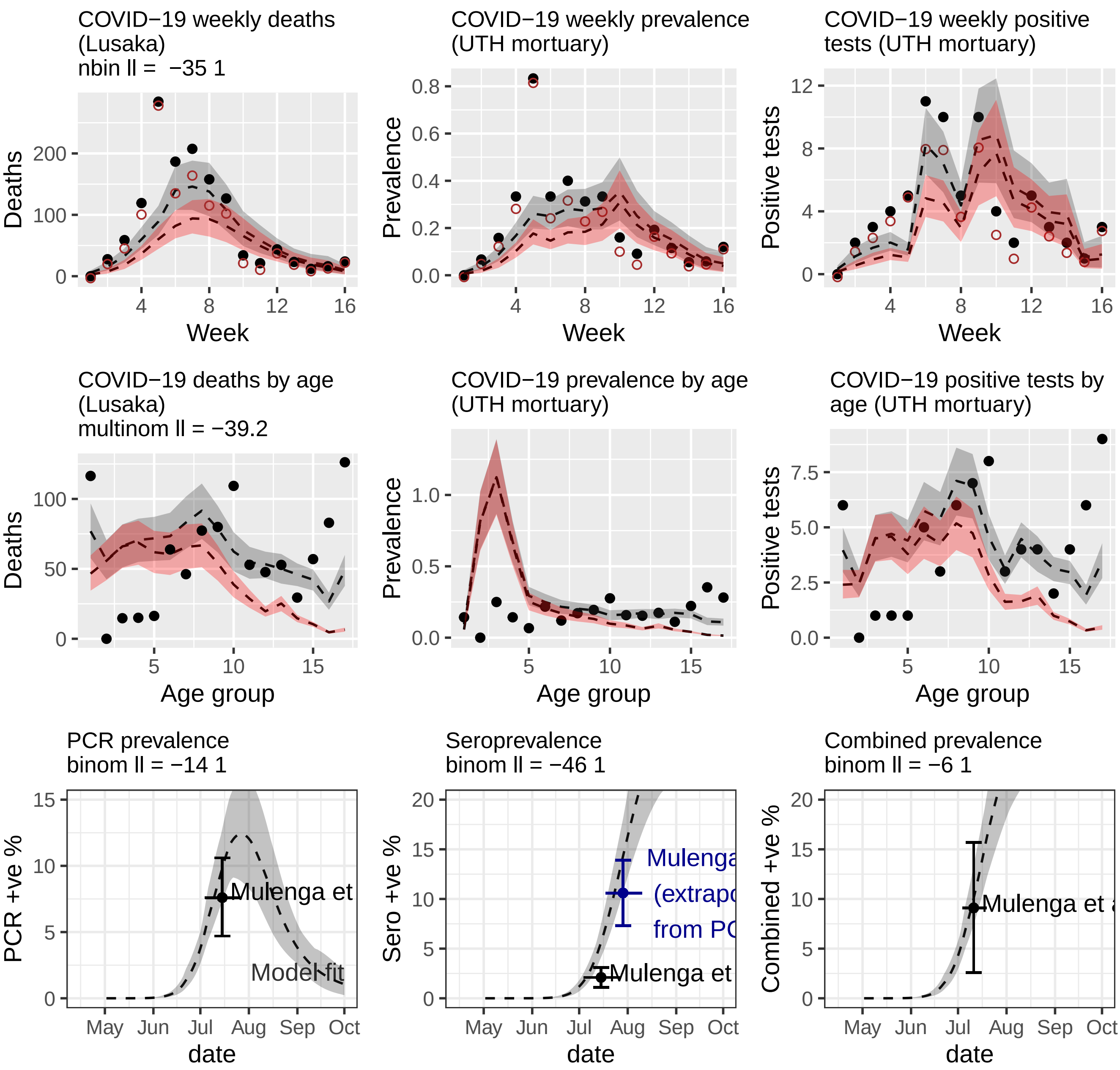
IFR x 0.2, Slope x 0.2



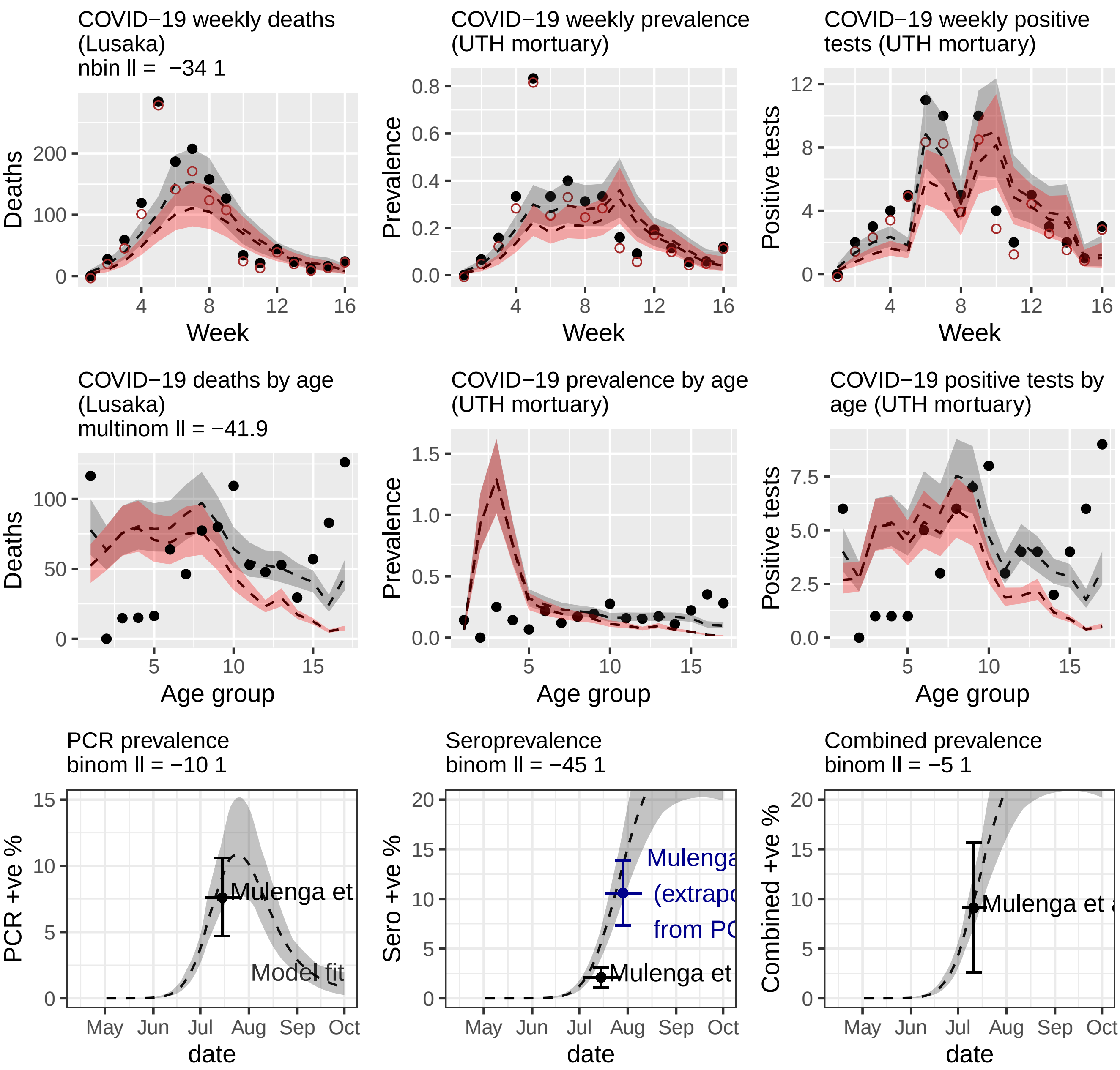
IFR x 0.4, Slope x 0.2



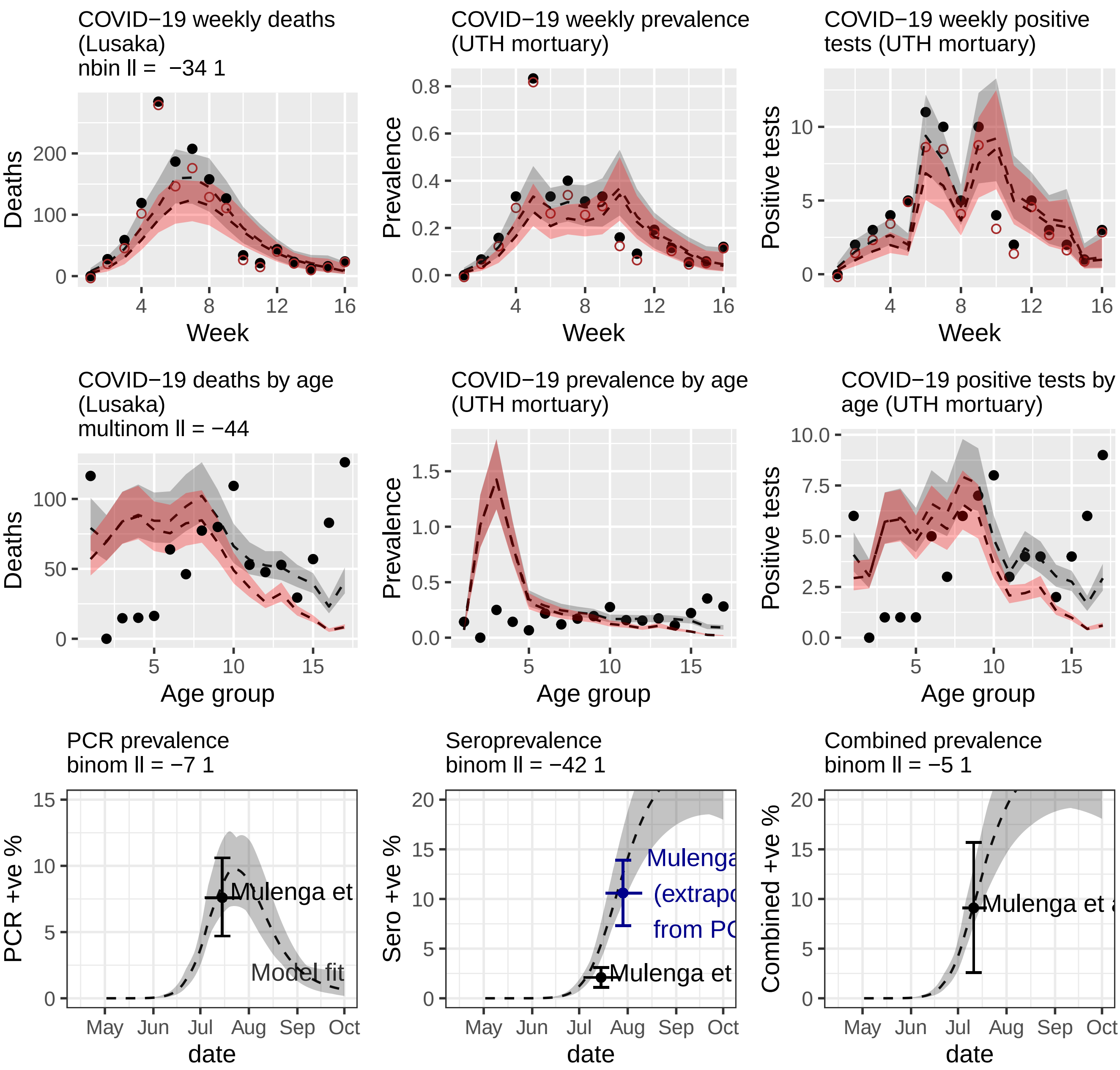
IFR x 0.6, Slope x 0.2



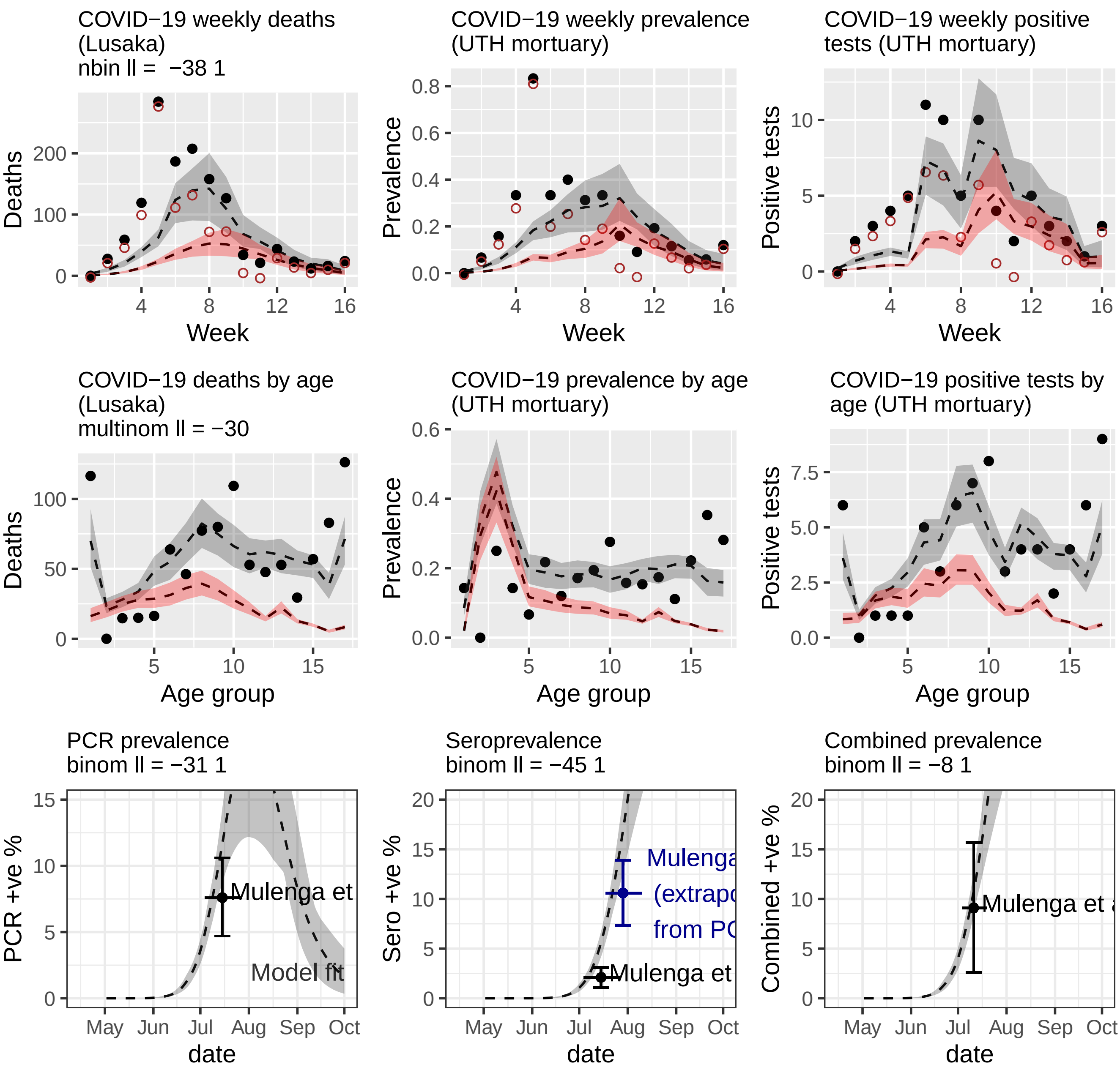
IFR x 0.8, Slope x 0.2



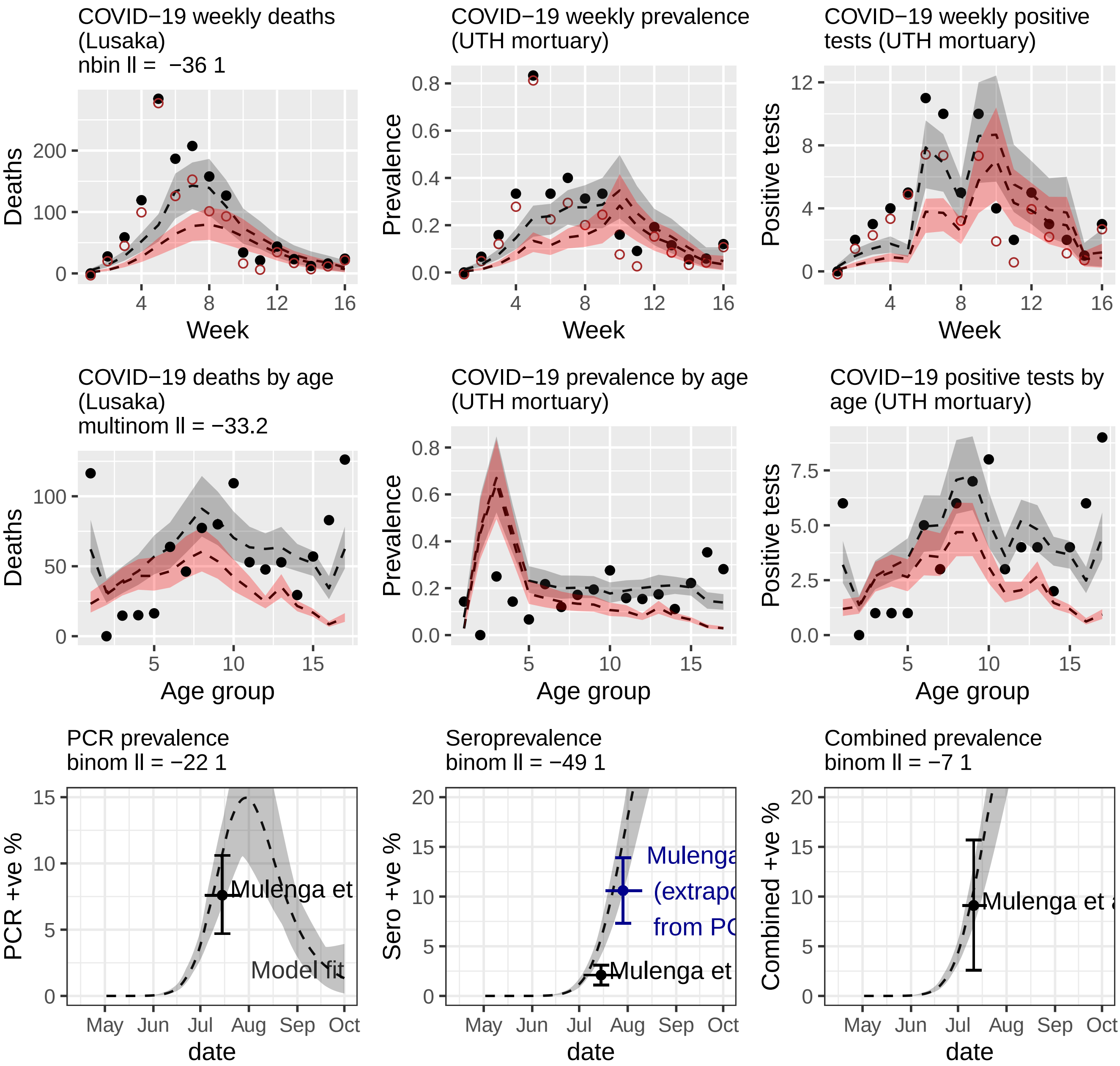
IFR x 1, Slope x 0.2



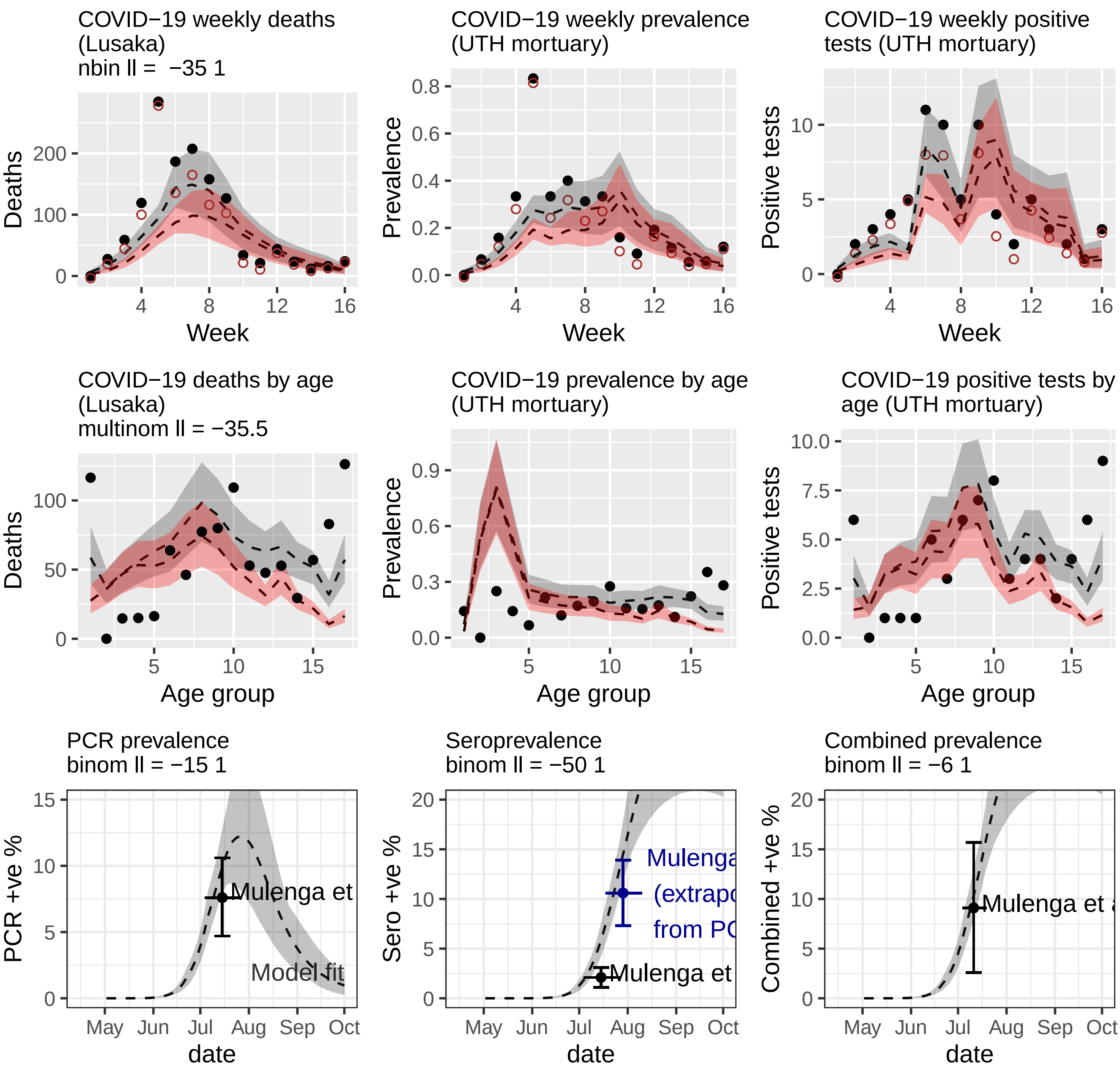
IFR x 0.2, Slope x 0.4



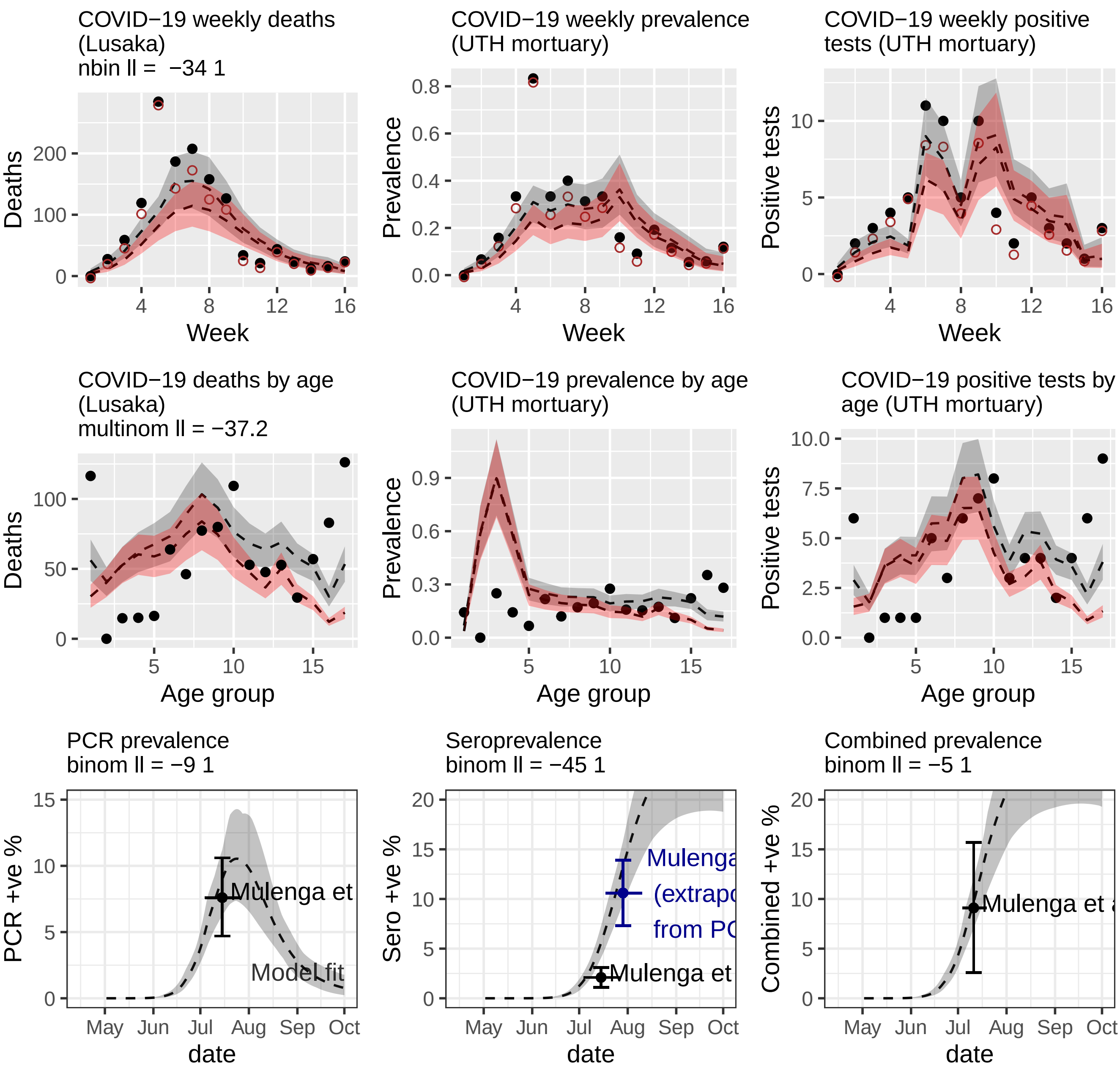
IFR x 0.4, Slope x 0.4



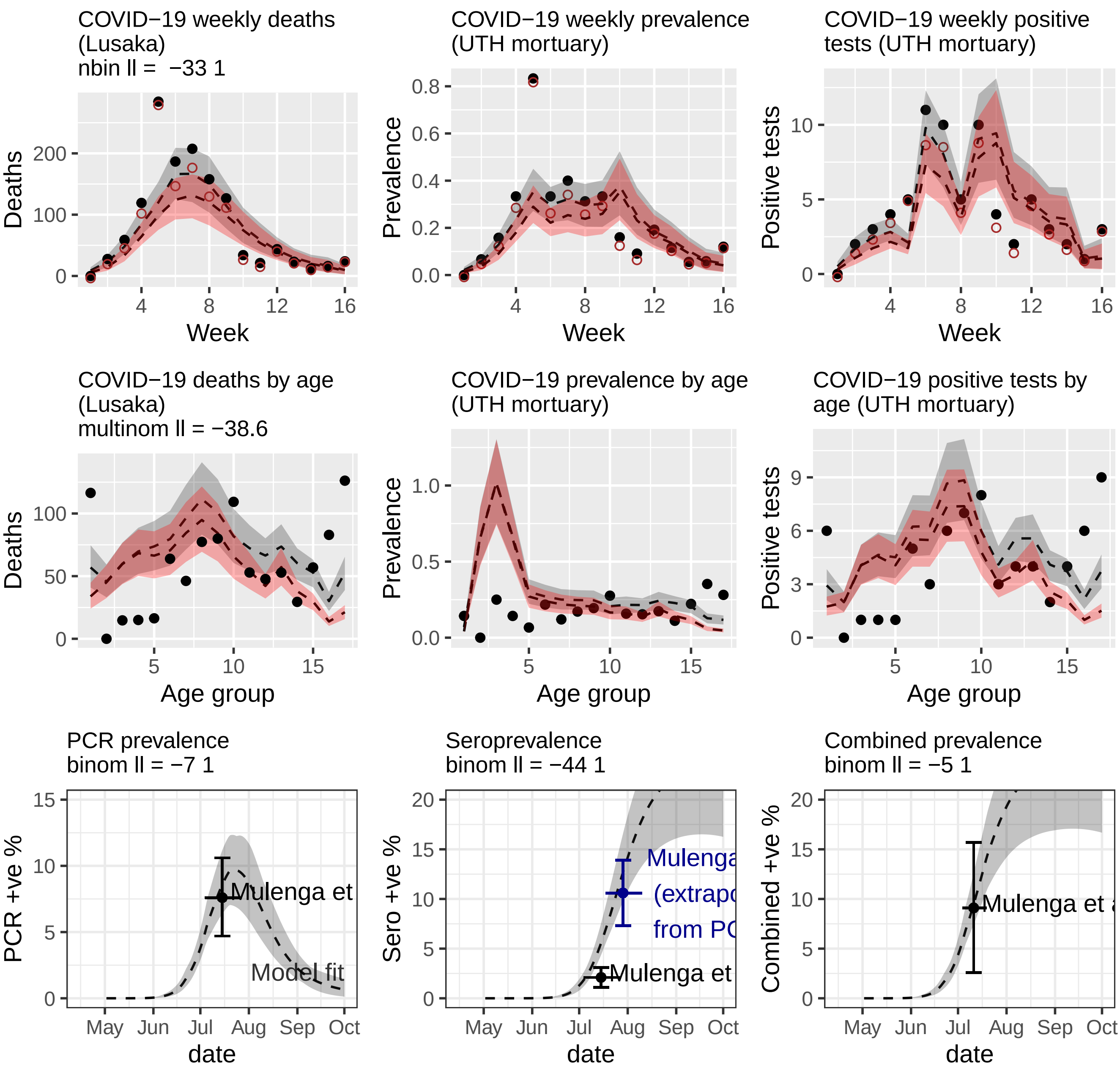
IFR x 0.6, Slope x 0.4



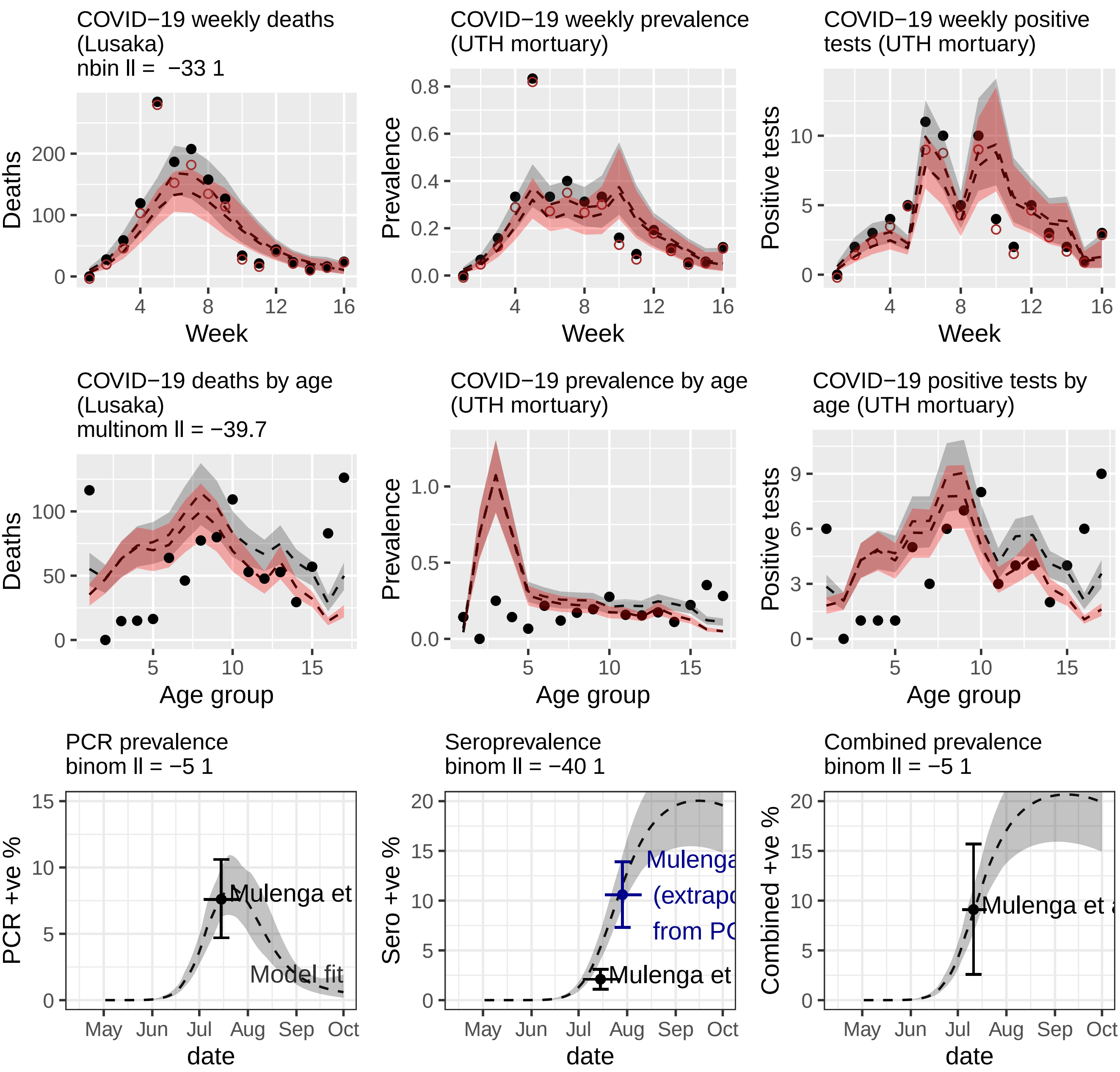
IFR x 0.8, Slope x 0.4



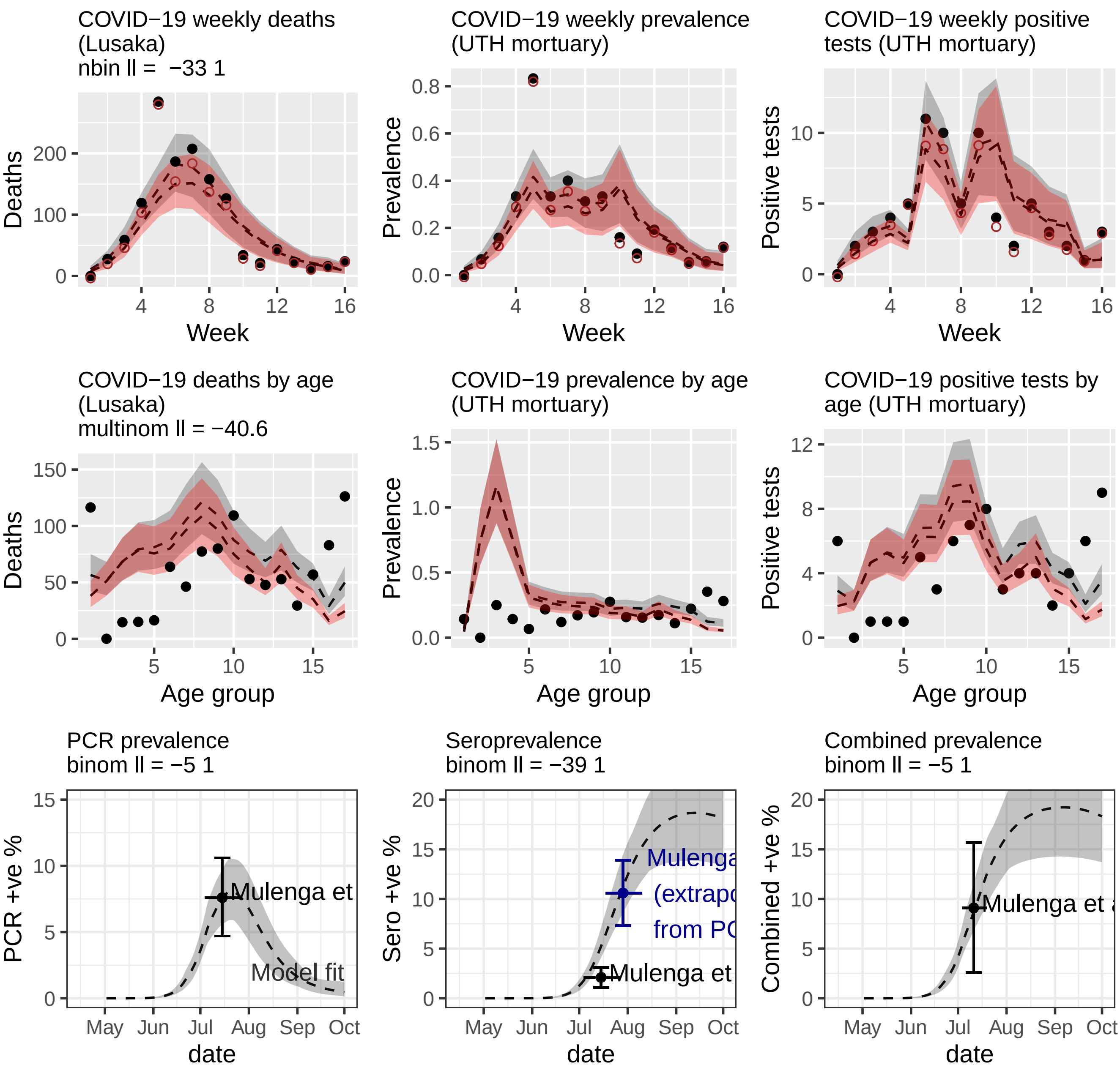
IFR x 1, Slope x 0.4



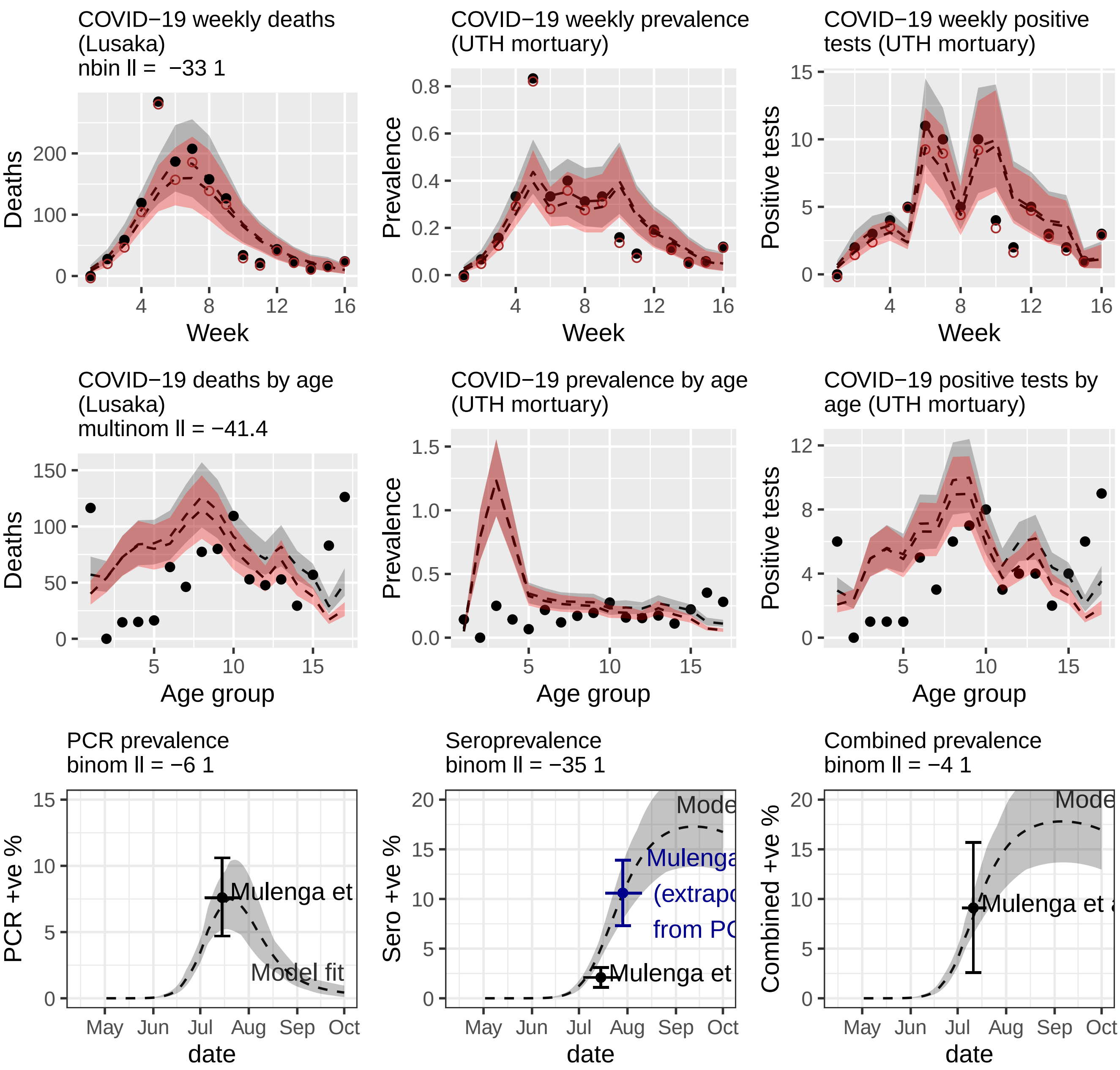
IFR x 1.2, Slope x 0.4

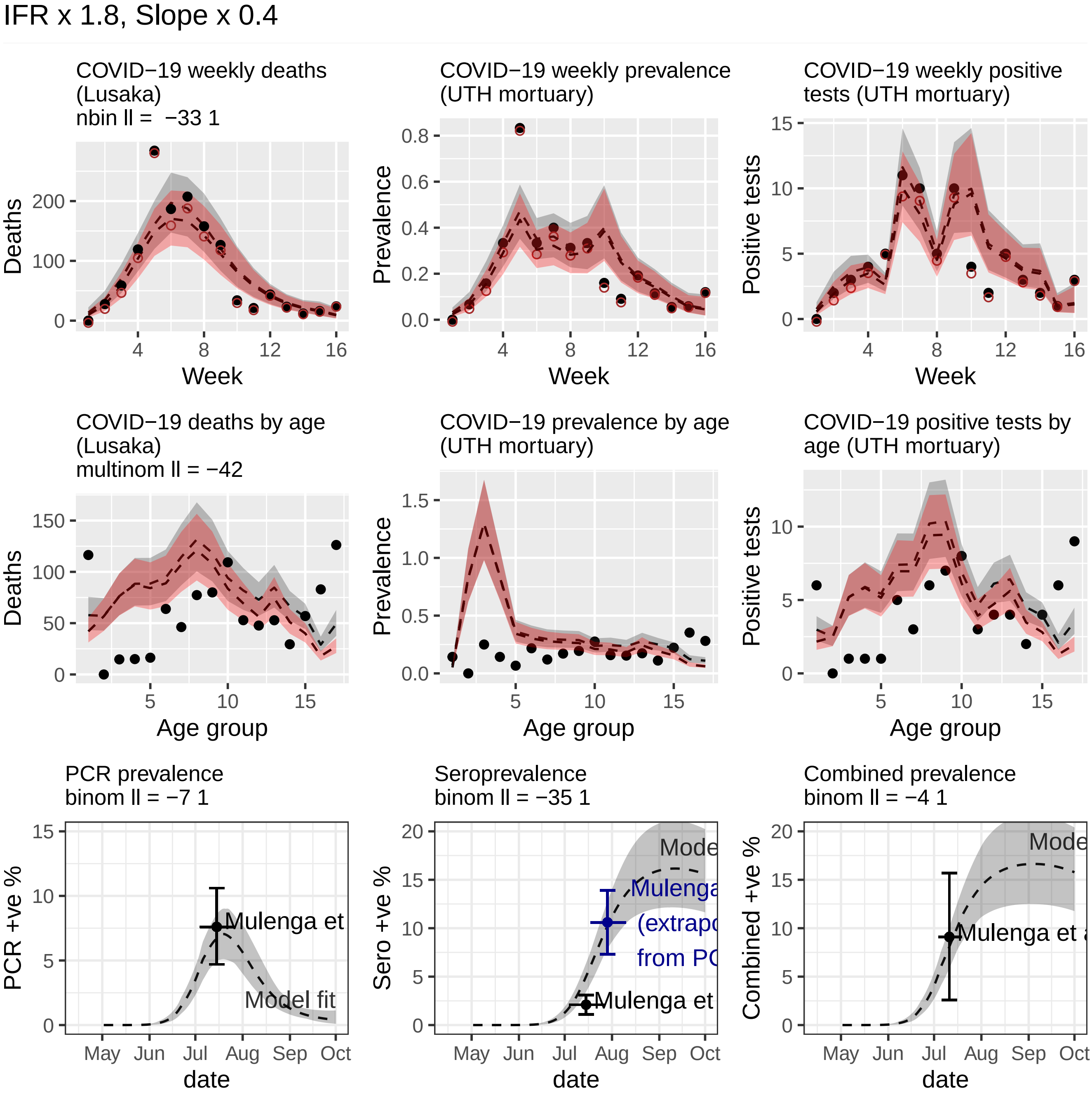


IFR x 1.4, Slope x 0.4

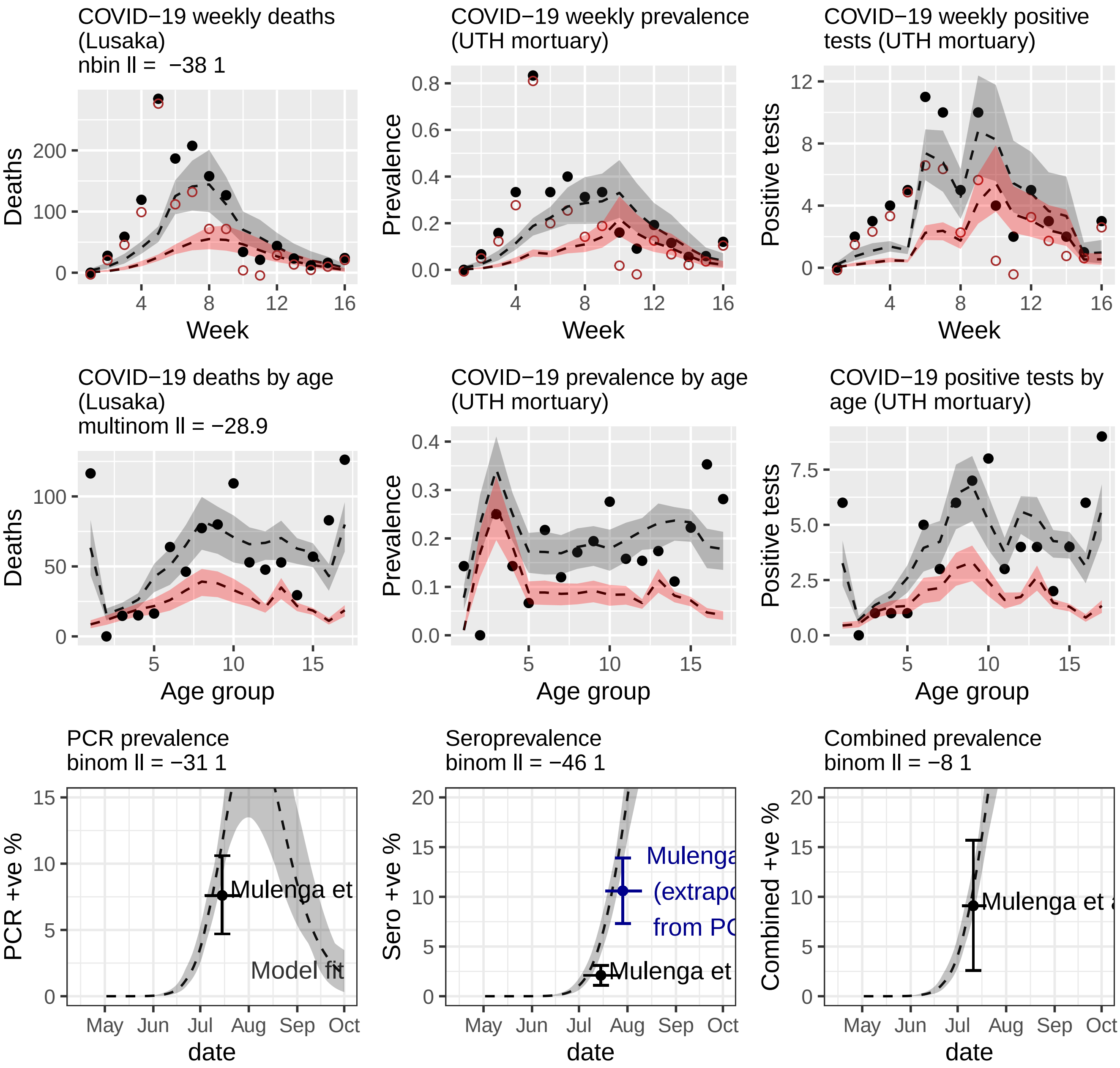


IFR x 1.6, Slope x 0.4

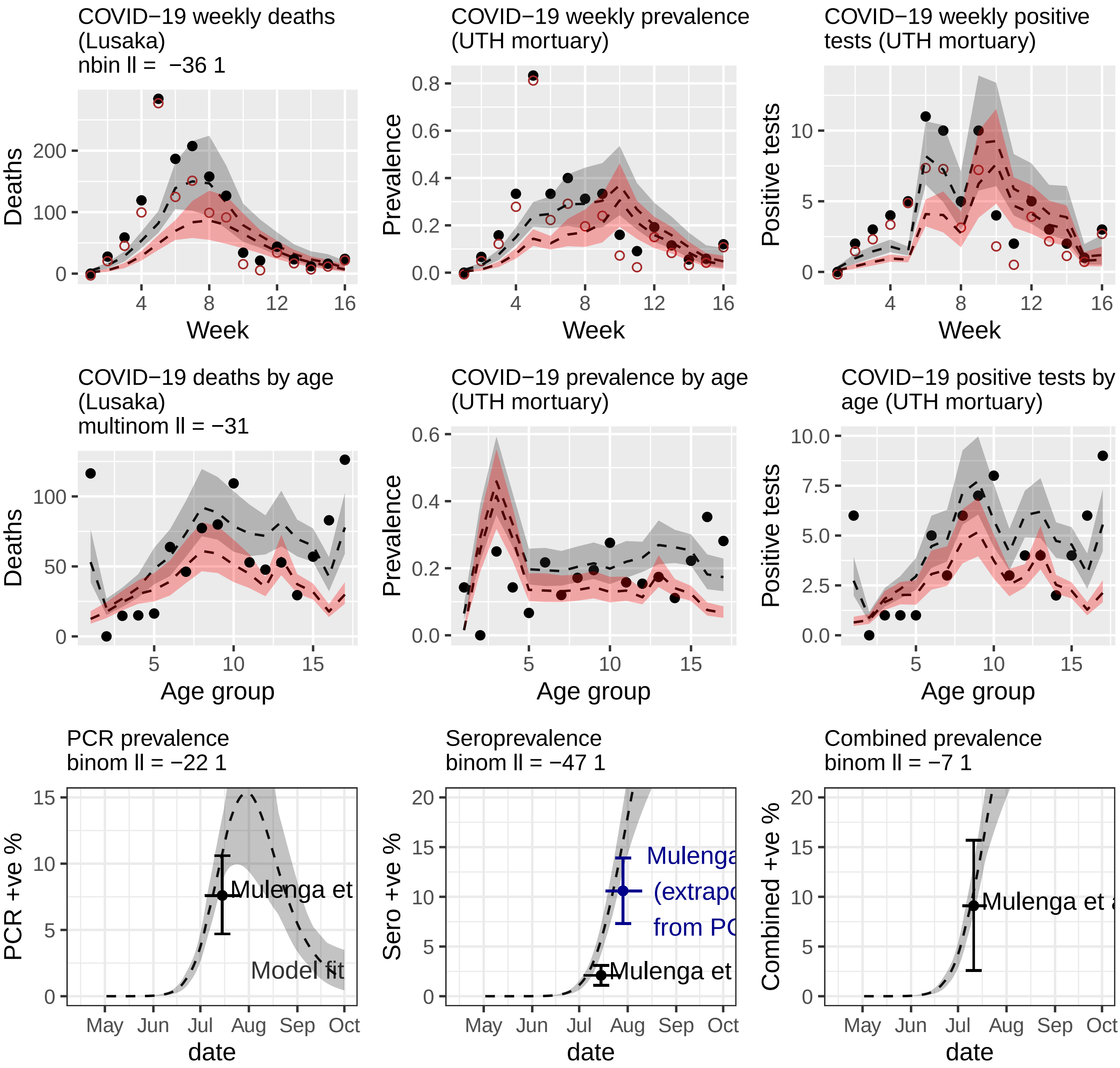



IFR x 1.8, Slope x 0.4
COVID−19 weekly deaths (Lusaka)
nbin ll = −33 1
Deaths
0
100
200
4
8
12
16
Week
COVID−19 weekly prevalence (UTH mortuary)
Prevalence
0.0
0.2
0.4
0.6
0.8
Week
COVID−19 weekly positive tests (UTH mortuary)
Positive tests
0
5
10
15
Week
COVID−19 deaths by age (Lusaka)
multinom ll = −42
Deaths
0
50
100
150
5
10
15
Age group
COVID−19 prevalence by age (UTH mortuary)
Prevalence
0.0
0.5
1.0
1.5
Age group
COVID−19 positive tests by age (UTH mortuary)
Positive tests
0
5
10
Age group
PCR prevalence
binom ll = −7 1
PCR +ve %
0
5
10
15
Mulenga et
Model fit
May
Jun
Jul
Aug
Sep
Oct
date
Seroprevalence
binom ll = −35 1
Sero +ve %
0
5
10
15
20
Mode
Mulenga
(extrapo
from PC
Mulenga et
date
Combined prevalence
binom ll = −4 1
Combined +ve %
Mode
Mulenga et a
date

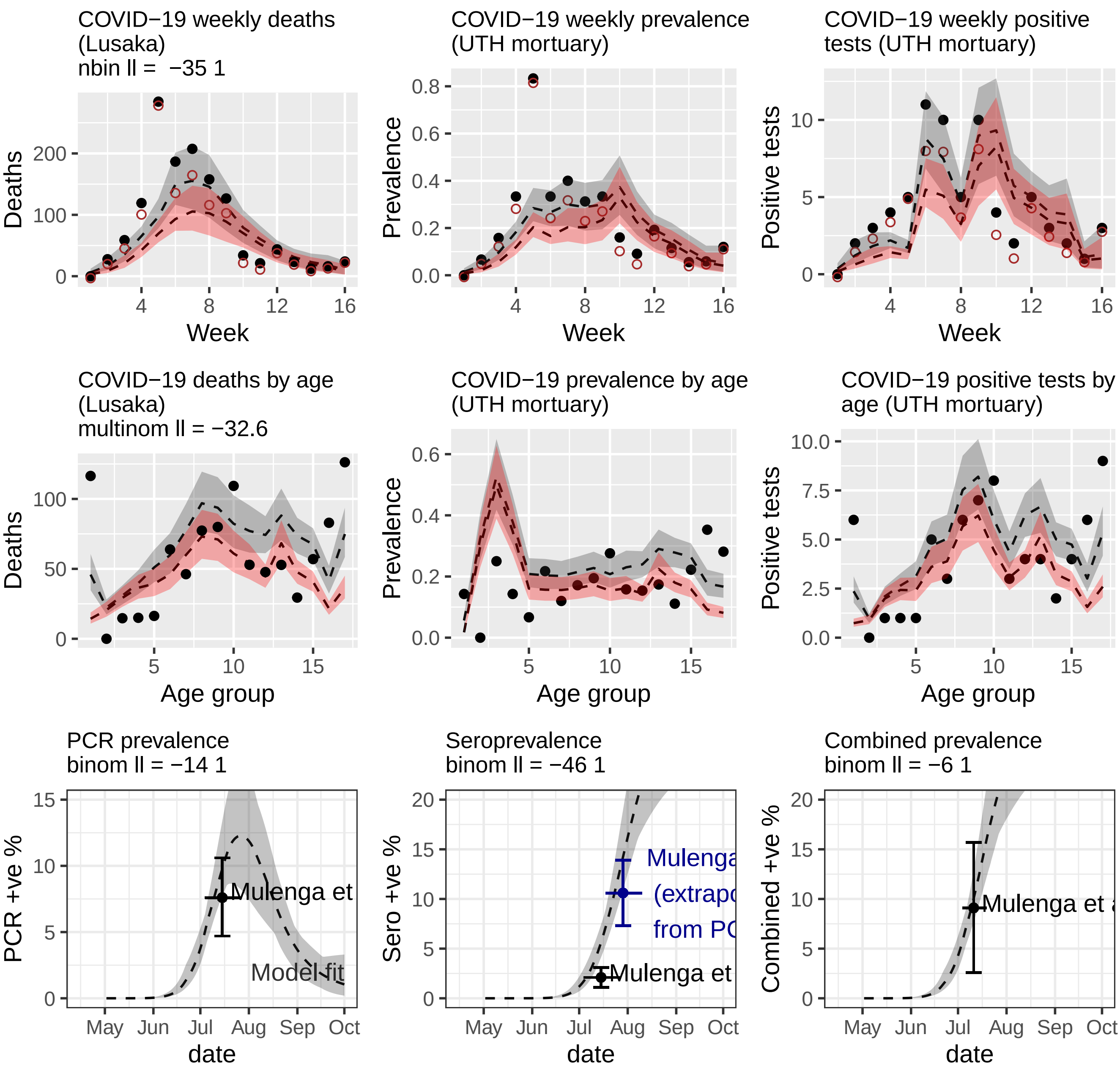
IFR x 0.2, Slope x 0.6



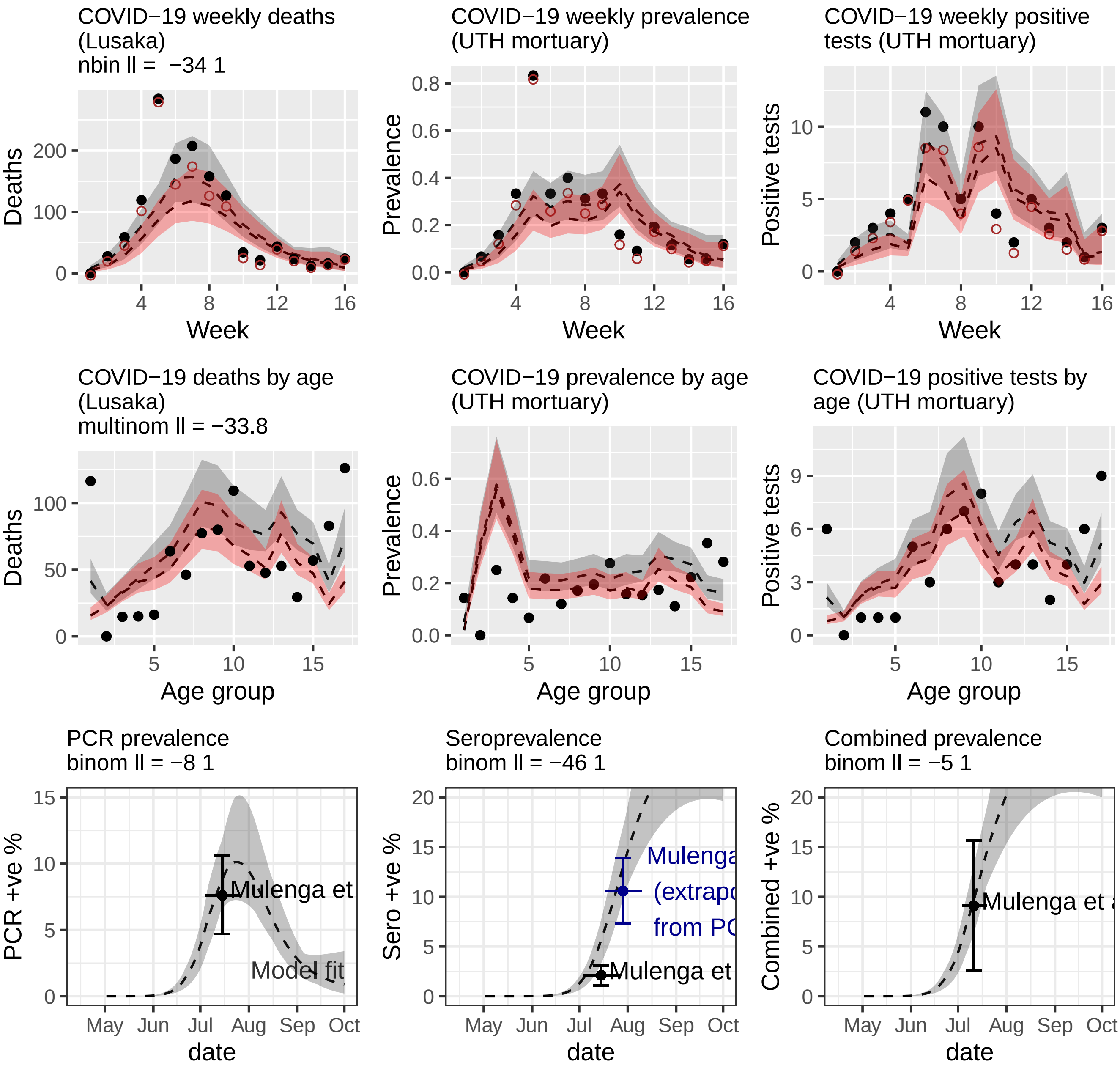
IFR x 0.4, Slope x 0.6



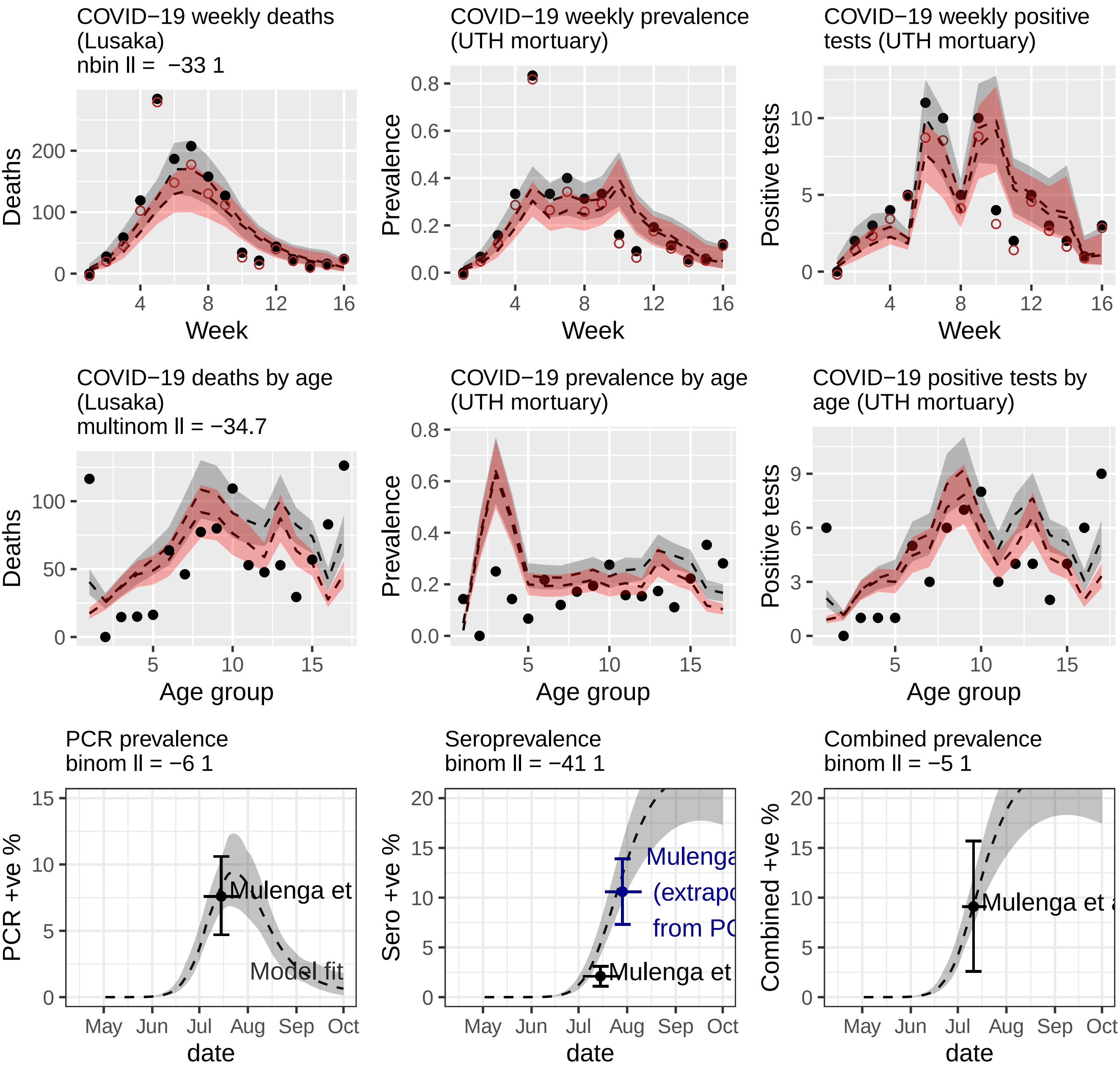
IFR x 0.6, Slope x 0.6

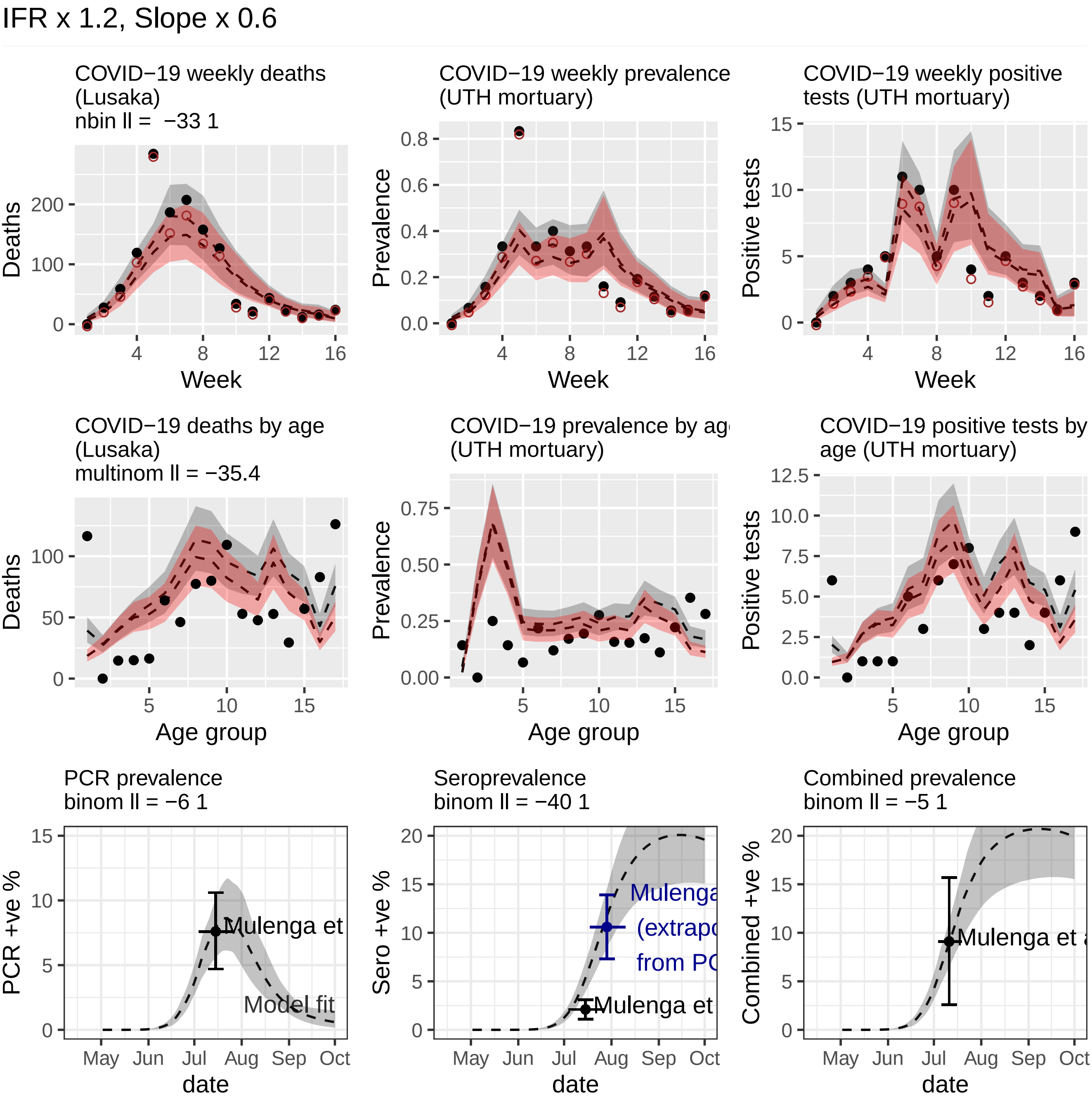


IFR x 0.8, Slope x 0.6

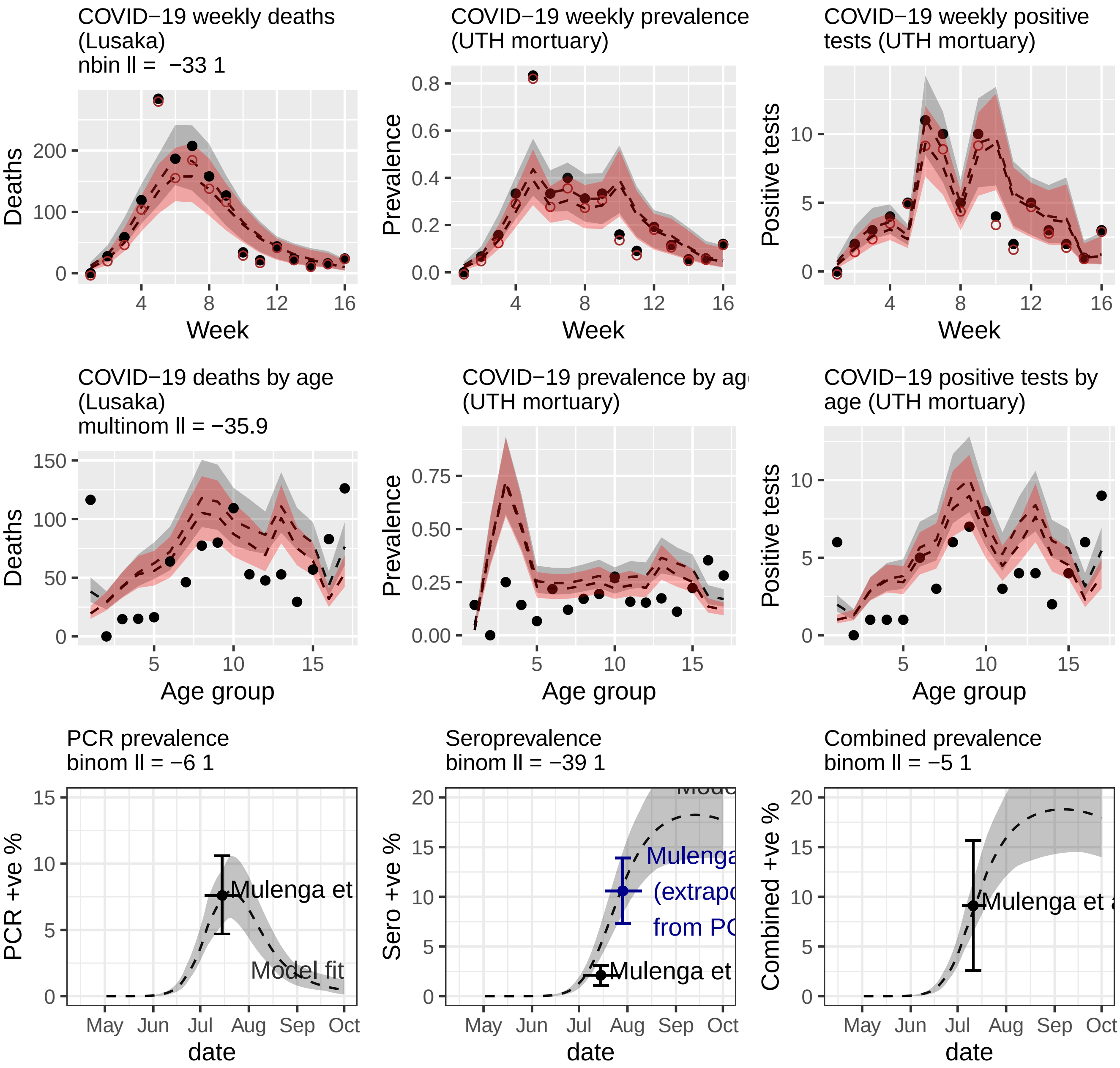


IFR x 1, Slope x 0.6




IFR x 1.2, Slope x 0.6

IFR x 1.4, Slope x 0.6



COVID−19 weekly deaths (Lusaka)
nbin ll = −33 1

COVID−19 weekly prevalence (UTH mortuary)

COVID−19 weekly positive tests (UTH mortuary)

COVID−19 deaths by age (Lusaka)
multinom ll = −35.9

COVID−19 prevalence by ag
(UTH mortuary)

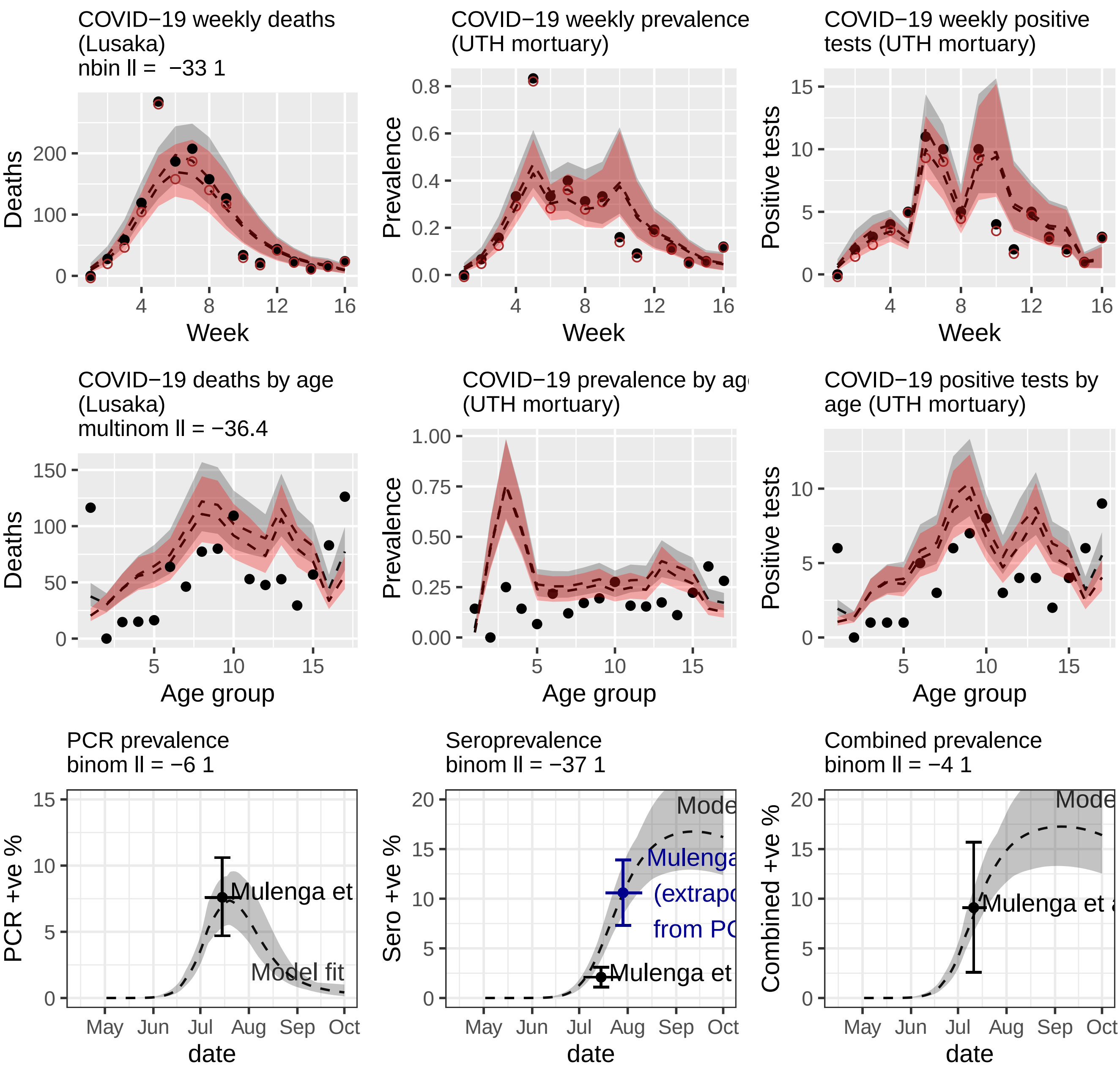
COVID−19 positive tests by age (UTH mortuary)

PCR prevalence
binom ll = −6 1

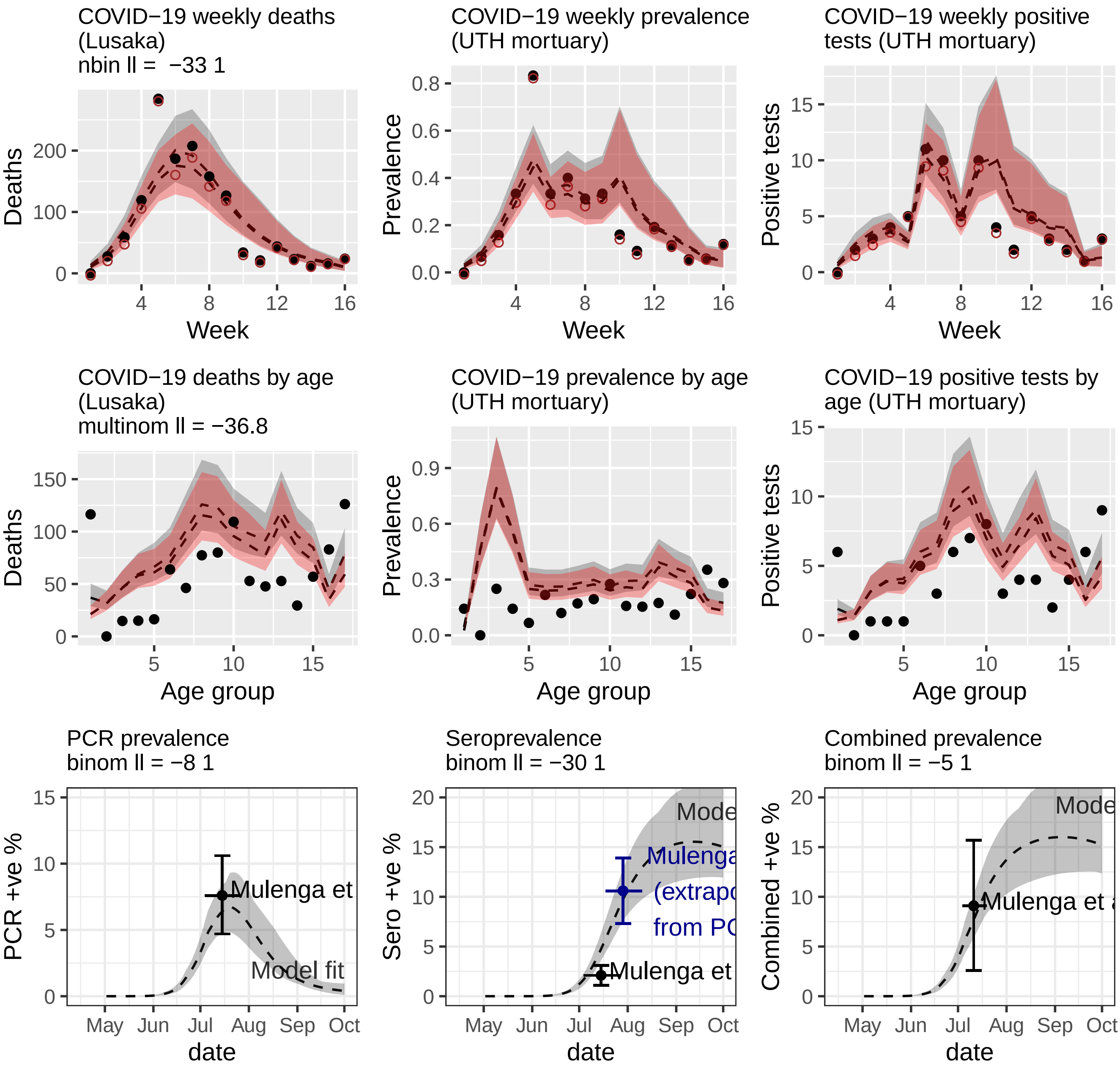
Seroprevalence
binom ll = −39 1

Combined prevalence
binom ll = −5 1

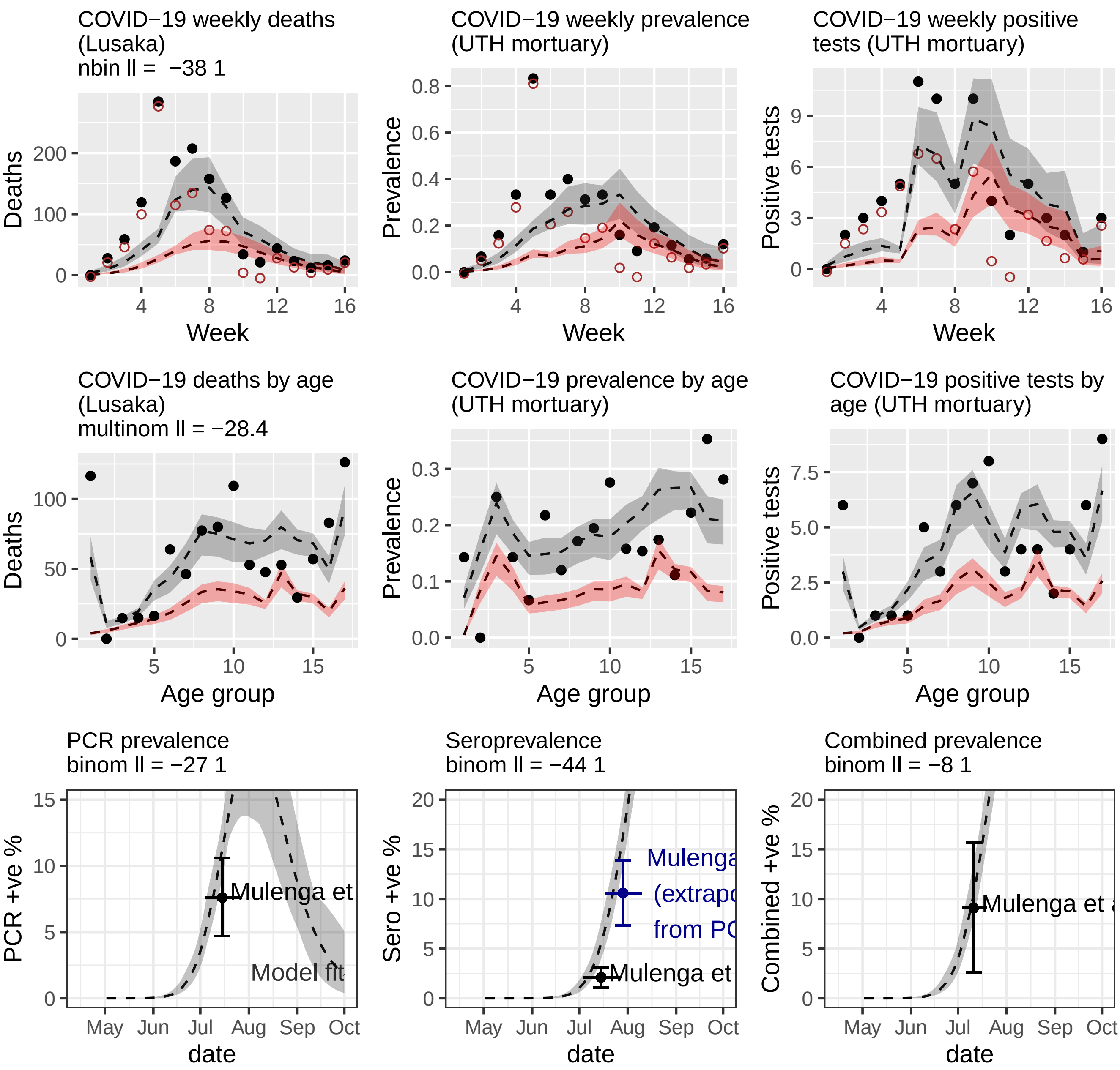
IFR x 1.6, Slope x 0.6



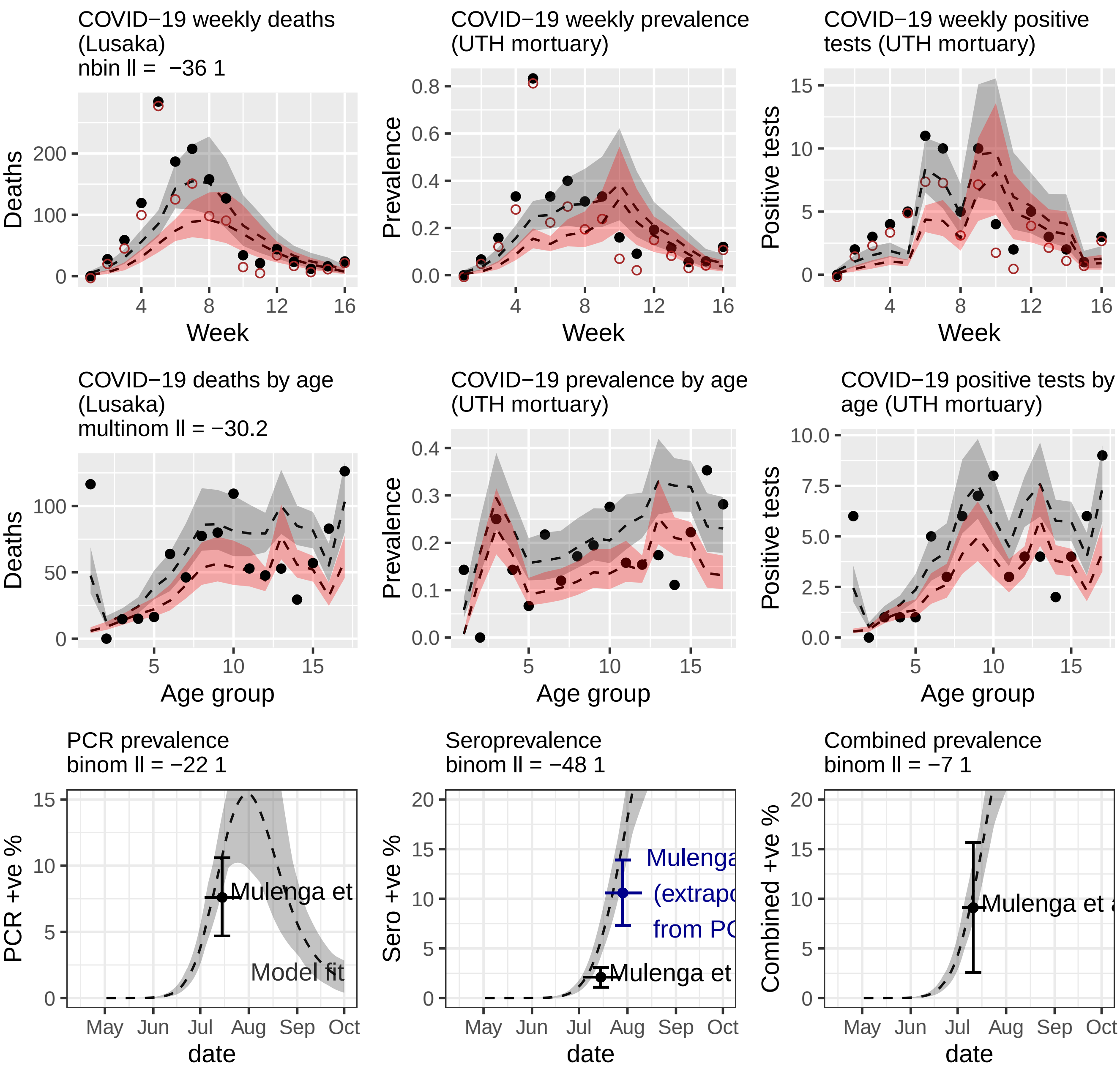
IFR x 1.8, Slope x 0.6

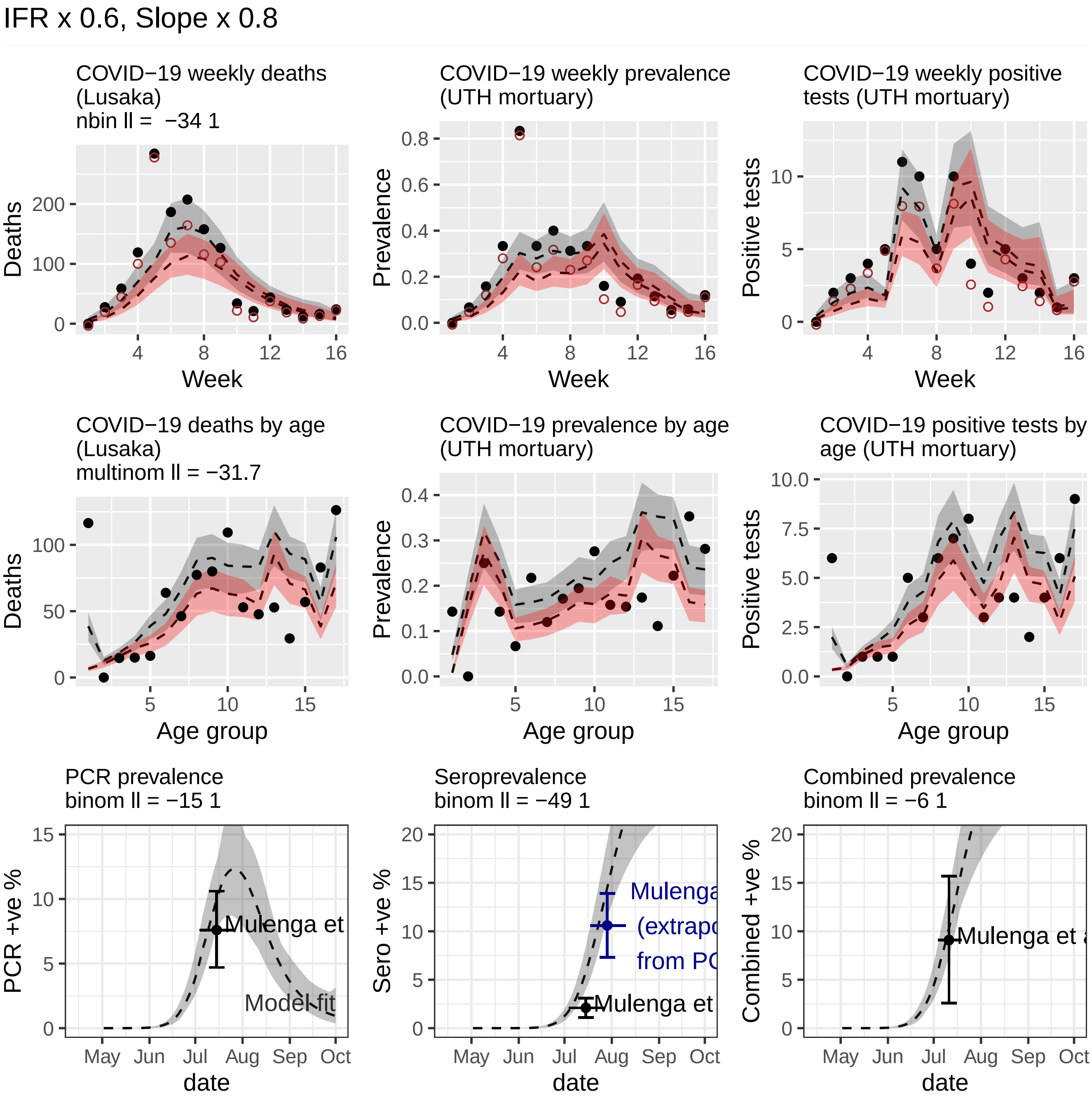


IFR x 0.2, Slope x 0.8

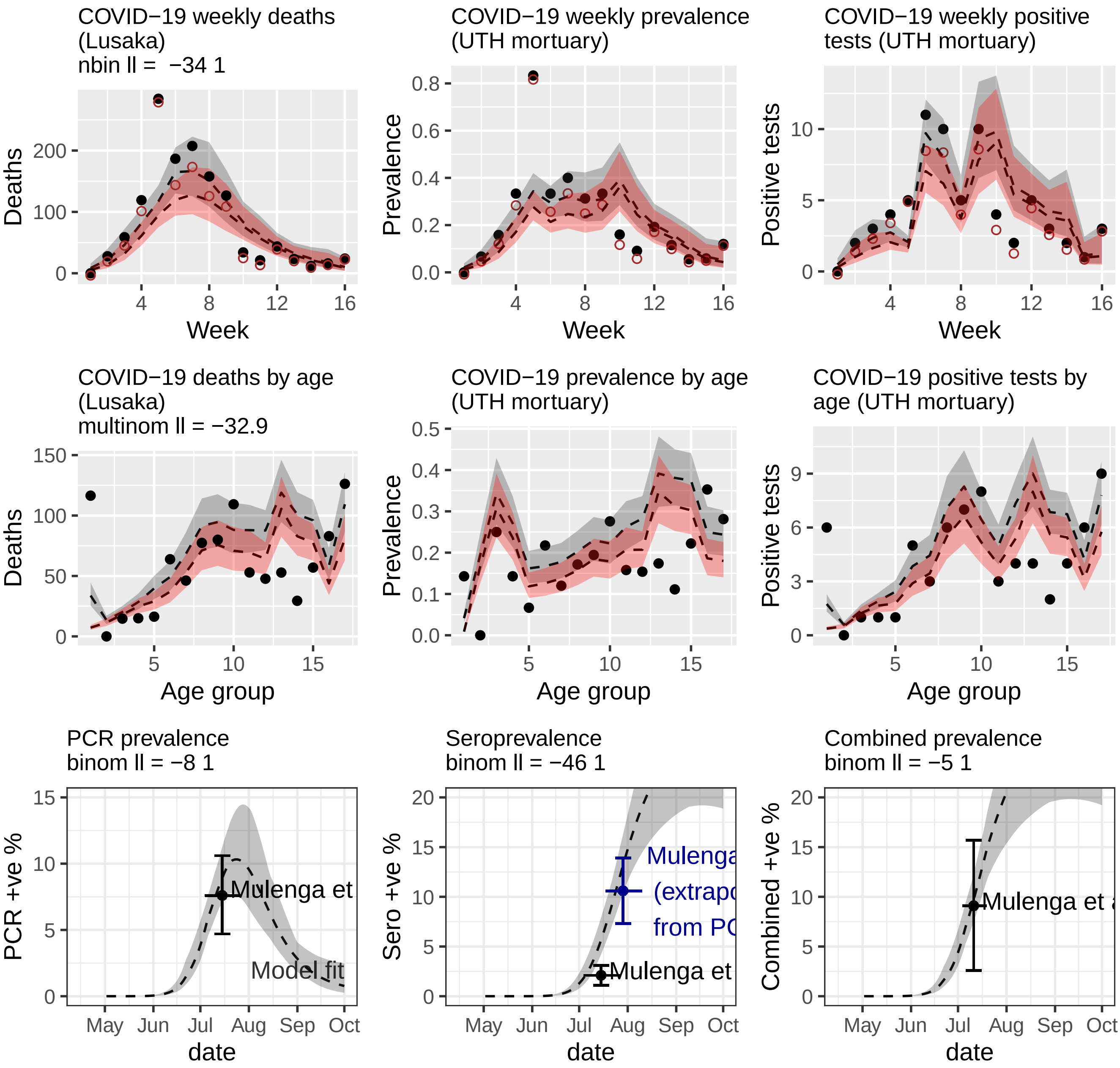


IFR x 0.4, Slope x 0.8

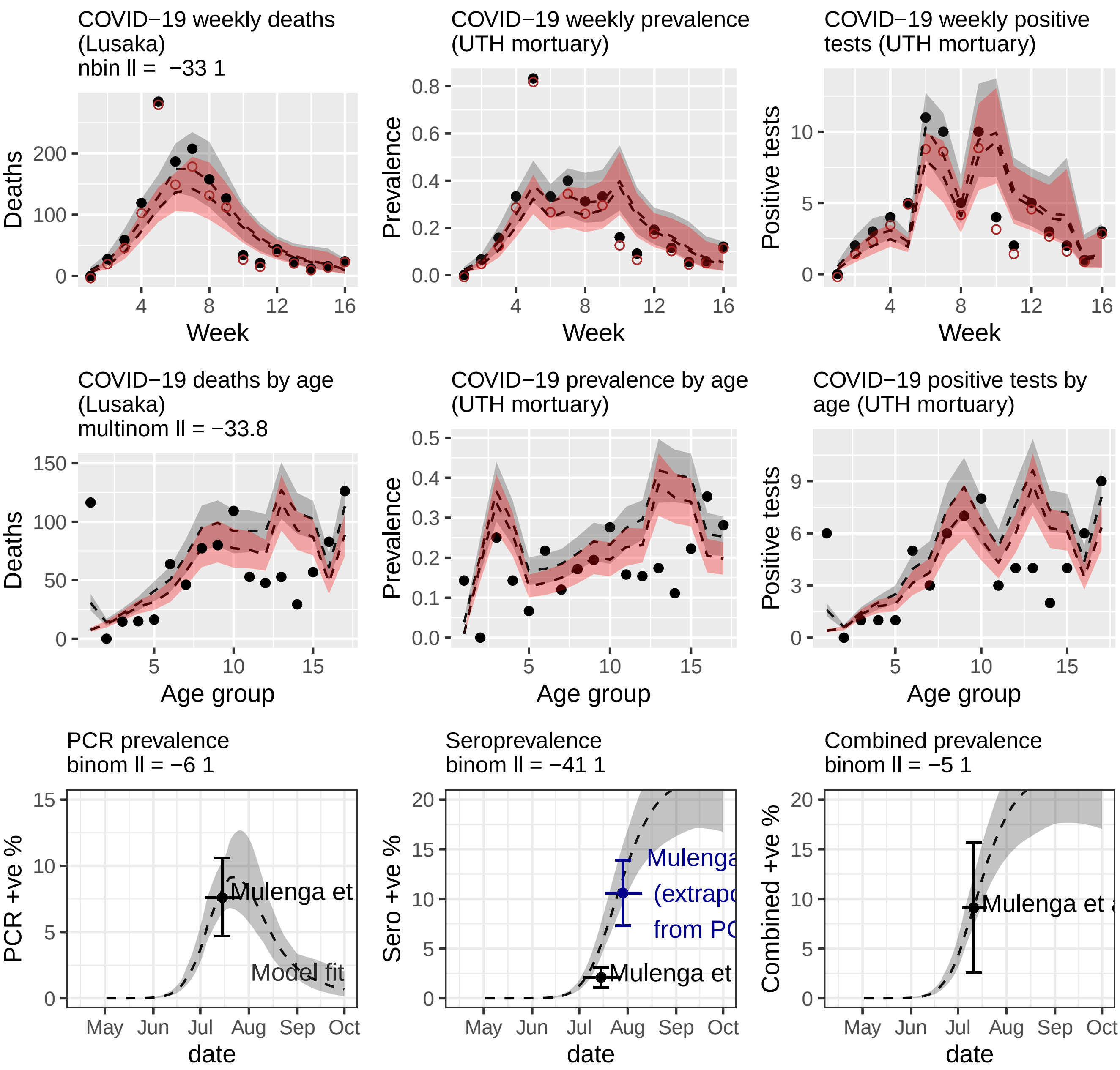



IFR x 0.6, Slope x 0.8
COVID−19 weekly deaths (Lusaka)
nbin ll = −34 1
Deaths
Week
COVID−19 weekly prevalence (UTH mortuary)
Prevalence
Week
COVID−19 weekly positive tests (UTH mortuary)
Positive tests
Week
COVID−19 deaths by age (Lusaka)
multinom ll = −31.7
Deaths
Age group
COVID−19 prevalence by age (UTH mortuary)
Prevalence
Age group
COVID−19 positive tests by age (UTH mortuary)
Positive tests
Age group
PCR prevalence
binom ll = −15 1
PCR +ve %
Mulenga et
Model fit
date
Seroprevalence
binom ll = −49 1
Sero +ve %
Mulenga
(extrapo
from PC
Mulenga et
date
Combined prevalence
binom ll = −6 1
Combined +ve %
Mulenga et a
date
May
Jun
Jul
Aug
Sep
Oct

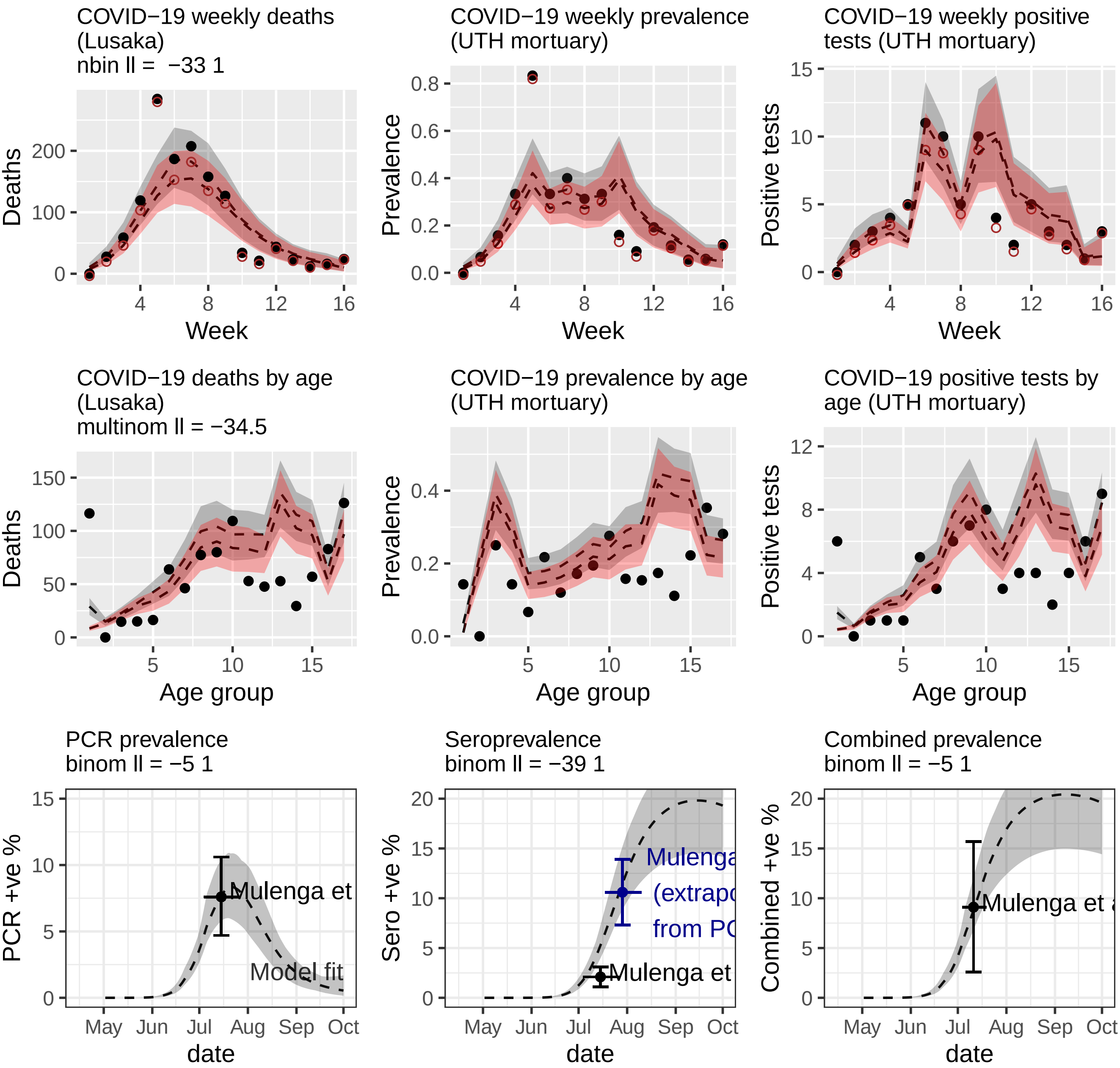
IFR x 0.8, Slope x 0.8

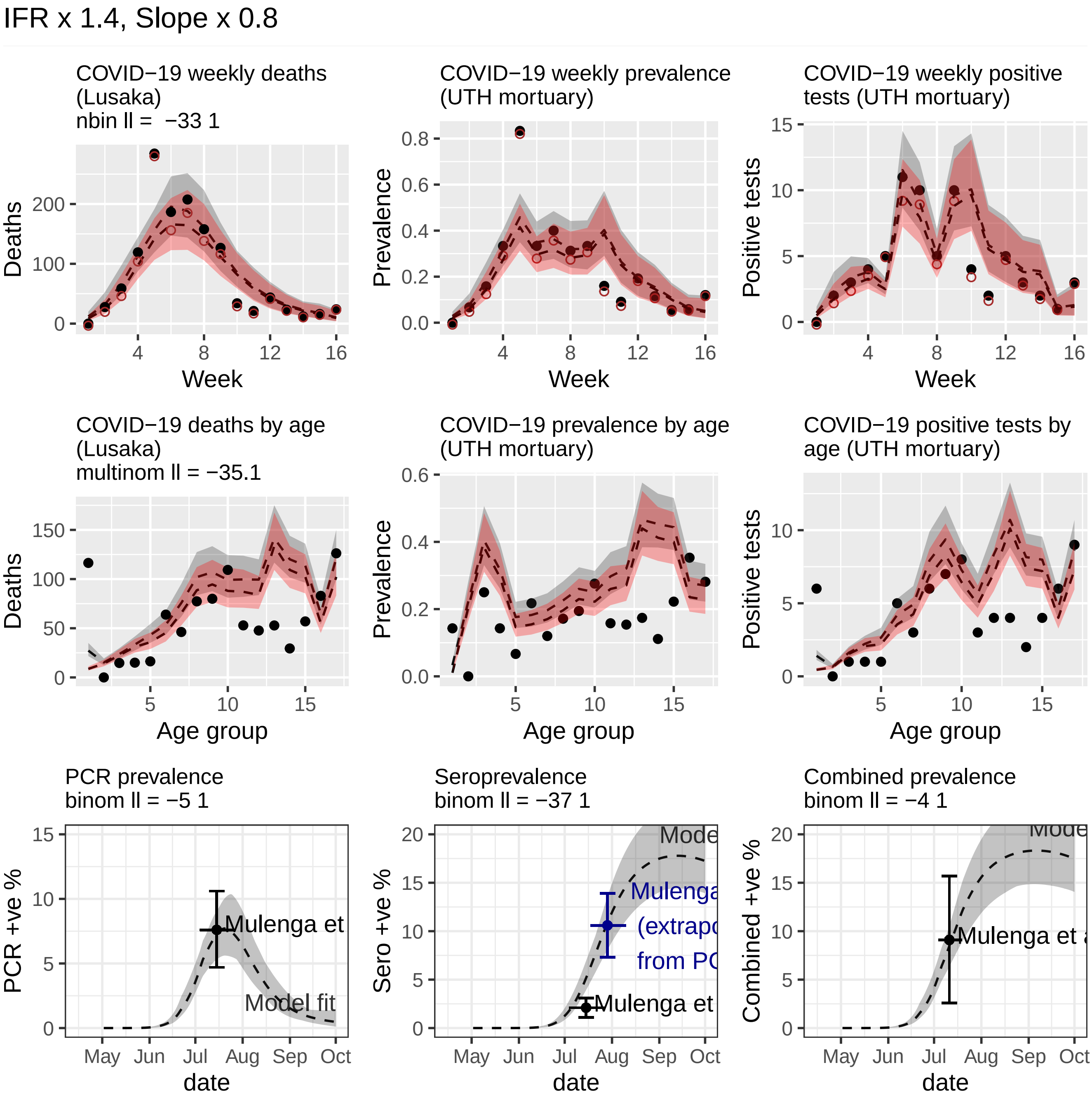


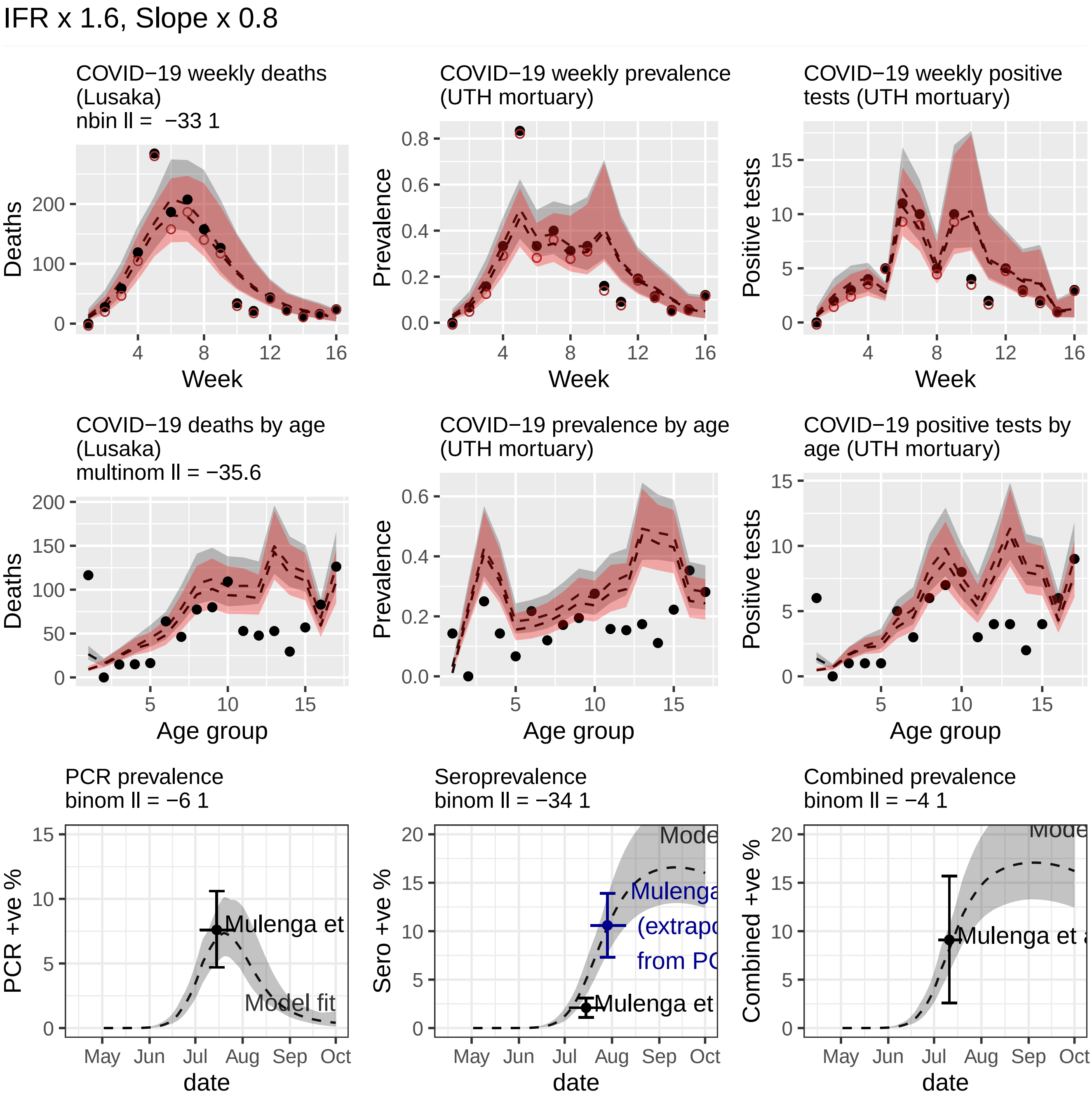
IFR x 1, Slope x 0.8



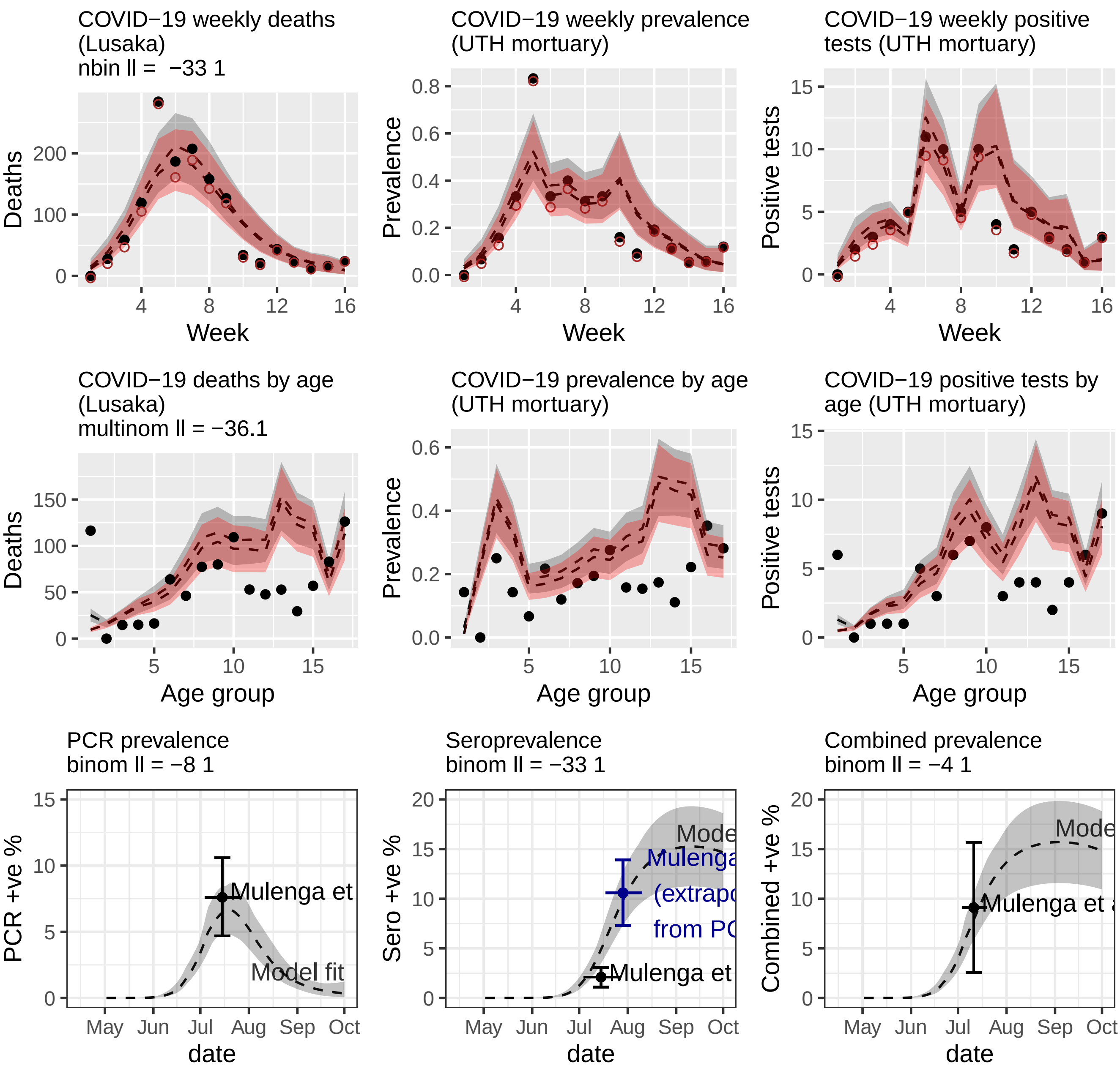
IFR x 1.2, Slope x 0.8

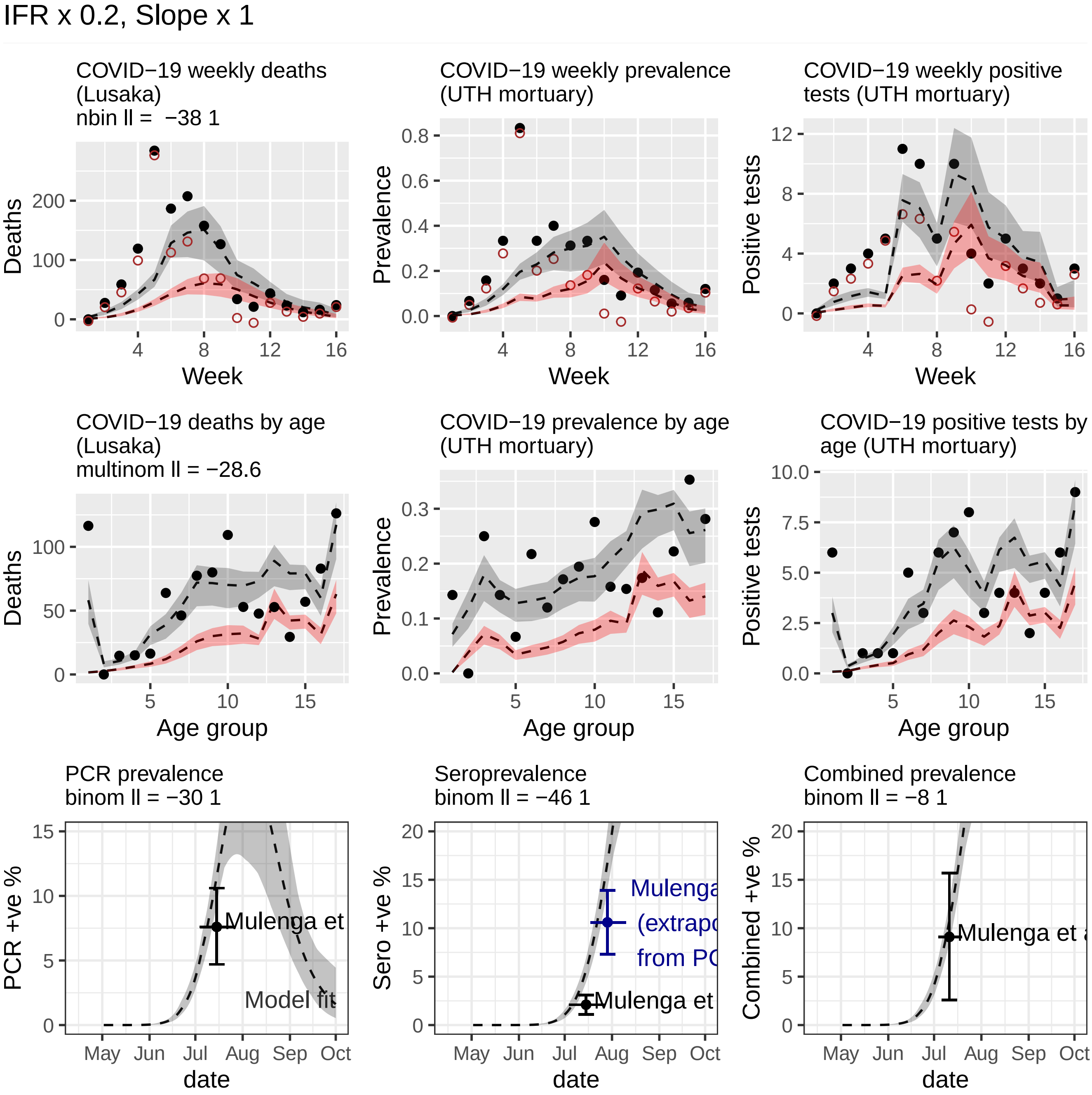



IFR x 1.4, Slope x 0.8
COVID−19 weekly deaths (Lusaka)
nbin ll = −33 1
Deaths
Week
COVID−19 weekly prevalence (UTH mortuary)
Prevalence
Week
COVID−19 weekly positive tests (UTH mortuary)
Positive tests
Week
COVID−19 deaths by age (Lusaka)
multinom ll = −35.1
Deaths
Age group
COVID−19 prevalence by age (UTH mortuary)
Prevalence
Age group
COVID−19 positive tests by age (UTH mortuary)
Positive tests
Age group
PCR prevalence
binom ll = −5 1
PCR +ve %
Mulenga et
Model fit
date
Seroprevalence
binom ll = −37 1
Sero +ve %
Mode
Mulenga
(extrapo
from PC
Mulenga et
date
Combined prevalence
binom ll = −4 1
Combined +ve %
Mode
Mulenga et a
date
May
Jun
Jul
Aug
Sep
Oct

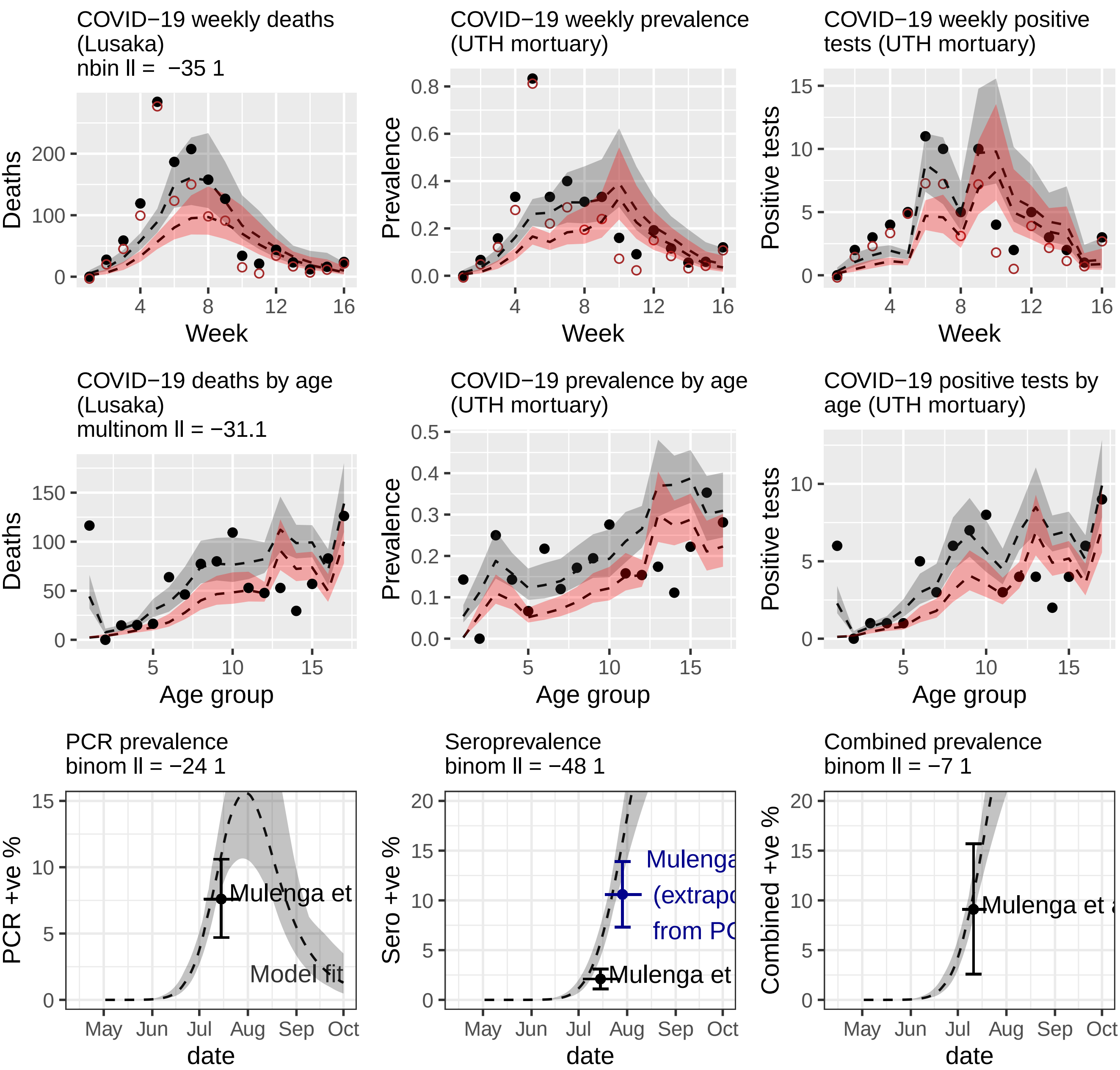

IFR x 1.6, Slope x 0.8
COVID−19 weekly deaths (Lusaka)
nbin ll = −33 1
Deaths
Week
COVID−19 weekly prevalence (UTH mortuary)
Prevalence
Week
COVID−19 weekly positive tests (UTH mortuary)
Positive tests
Week
COVID−19 deaths by age (Lusaka)
multinom ll = −35.6
Deaths
Age group
COVID−19 prevalence by age (UTH mortuary)
Prevalence
Age group
COVID−19 positive tests by age (UTH mortuary)
Positive tests
Age group
PCR prevalence
binom ll = −6 1
PCR +ve %
Mulenga et
Model fit
date
Seroprevalence
binom ll = −34 1
Sero +ve %
Mode
Mulenga
(extrapo
from PC
Mulenga et
date
Combined prevalence
binom ll = −4 1
Combined +ve %
Mode
Mulenga et a
date
May
Jun
Jul
Aug
Sep
Oct

IFR x 1.8, Slope x 0.8

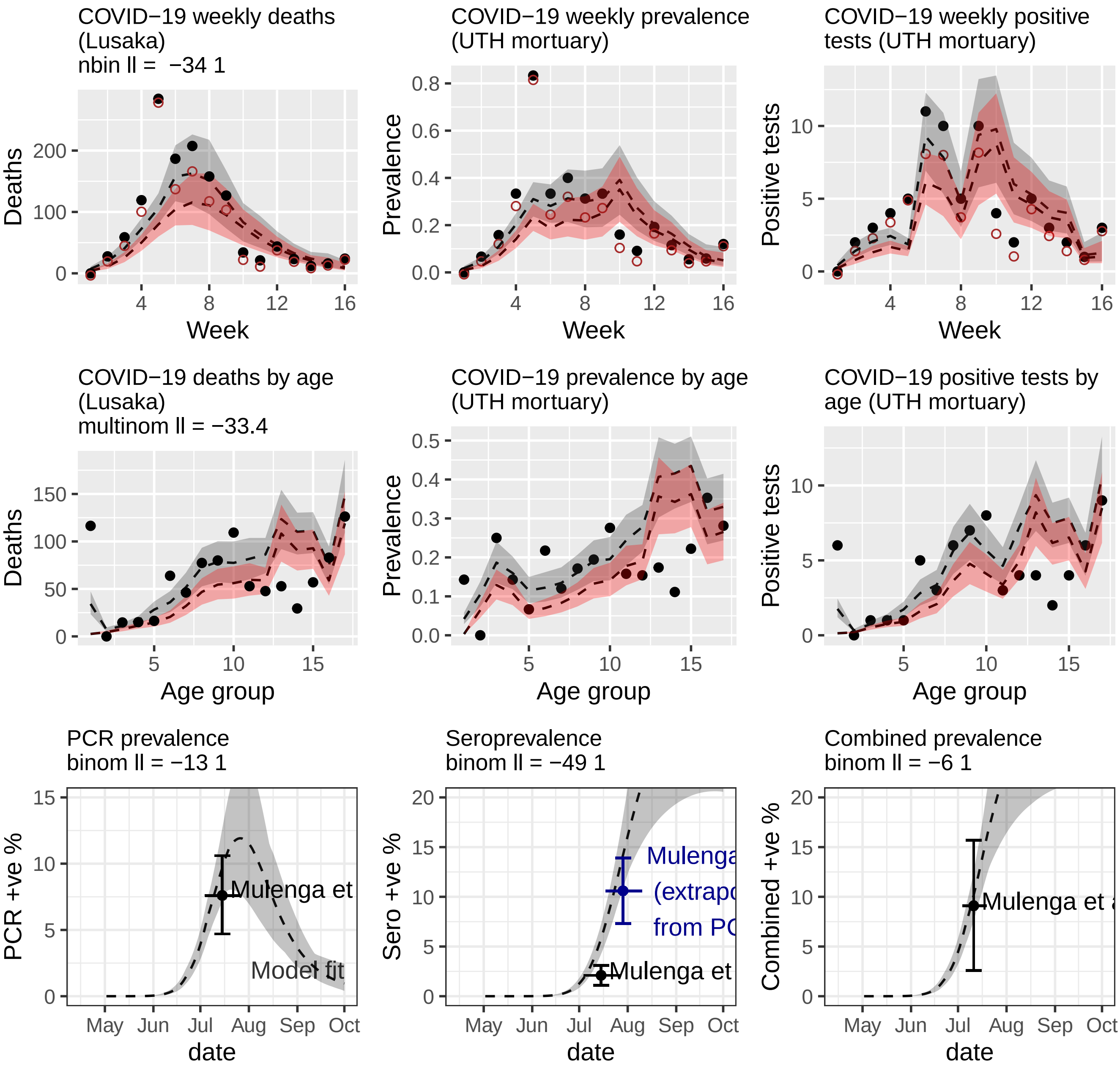



IFR x 0.2, Slope x 1
COVID−19 weekly deaths (Lusaka)
nbin ll = −38 1
Deaths
0
100
200
4
8
12
16
Week
COVID−19 weekly prevalence (UTH mortuary)
Prevalence
0.0
0.2
0.4
0.6
0.8
Week
COVID−19 weekly positive tests (UTH mortuary)
Positive tests
0
4
8
12
Week
COVID−19 deaths by age (Lusaka)
multinom ll = −28.6
Deaths
0
50
100
5
10
15
Age group
COVID−19 prevalence by age (UTH mortuary)
Prevalence
0.0
0.1
0.2
0.3
Age group
COVID−19 positive tests by age (UTH mortuary)
Positive tests
0.0
2.5
5.0
7.5
10.0
Age group
PCR prevalence
binom ll = −30 1
PCR +ve %
0
5
10
15
Mulenga et
Model fit
May
Jun
Jul
Aug
Sep
Oct
date
Seroprevalence
binom ll = −46 1
Sero +ve %
0
5
10
15
20
Mulenga
(extrapo
from PC
Mulenga et
date
Combined prevalence
binom ll = −8 1
Combined +ve %
0
5
10
15
20
Mulenga et a
date

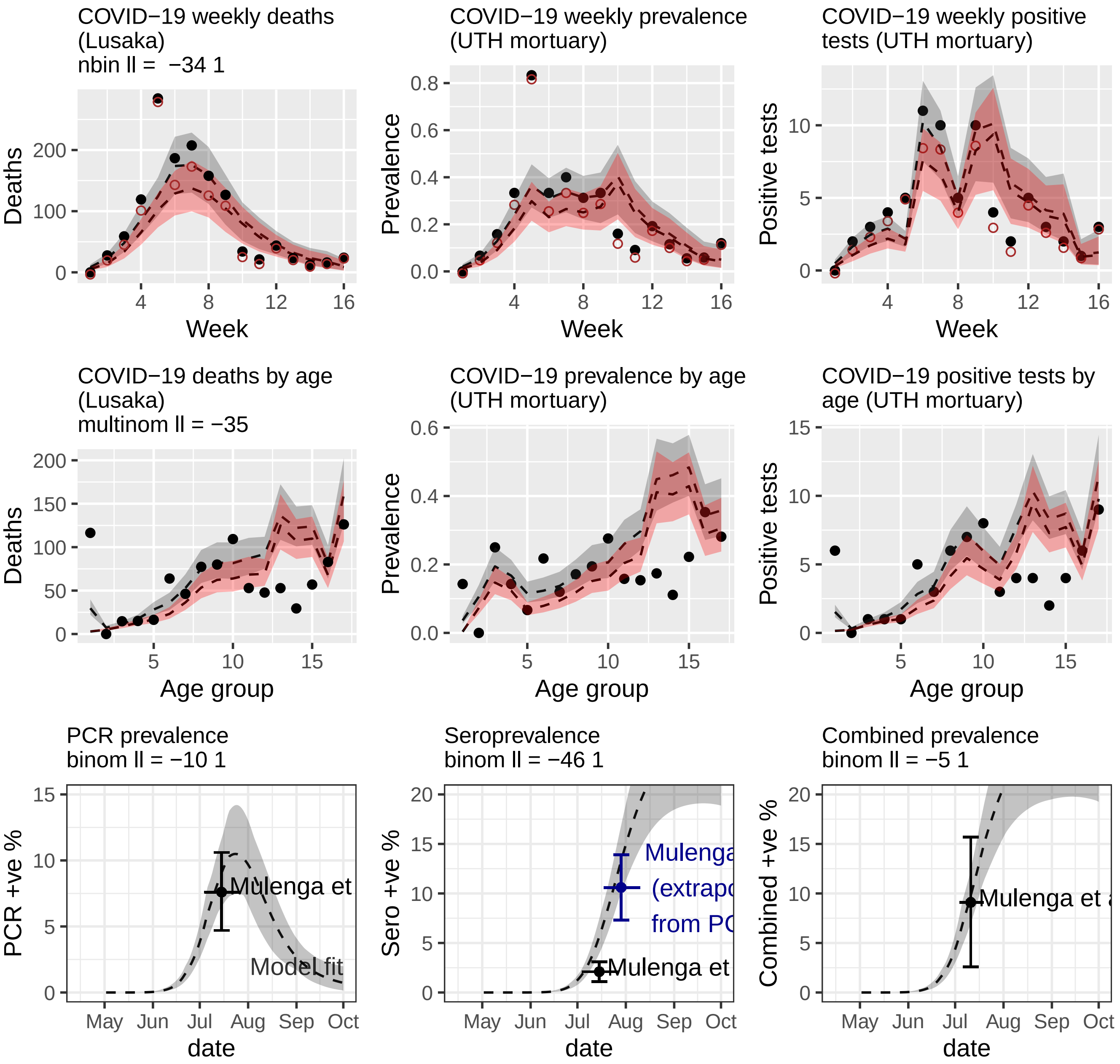
IFR x 0.4, Slope x 1



IFR x 0.6, Slope x 1



IFR x 0.8, Slope x 1



COVID−19 weekly deaths (Lusaka)
nbin ll = −34 1

COVID−19 weekly prevalence (UTH mortuary)

COVID−19 weekly positive tests (UTH mortuary)

COVID−19 deaths by age (Lusaka)
multinom ll = −35

COVID−19 prevalence by age (UTH mortuary)

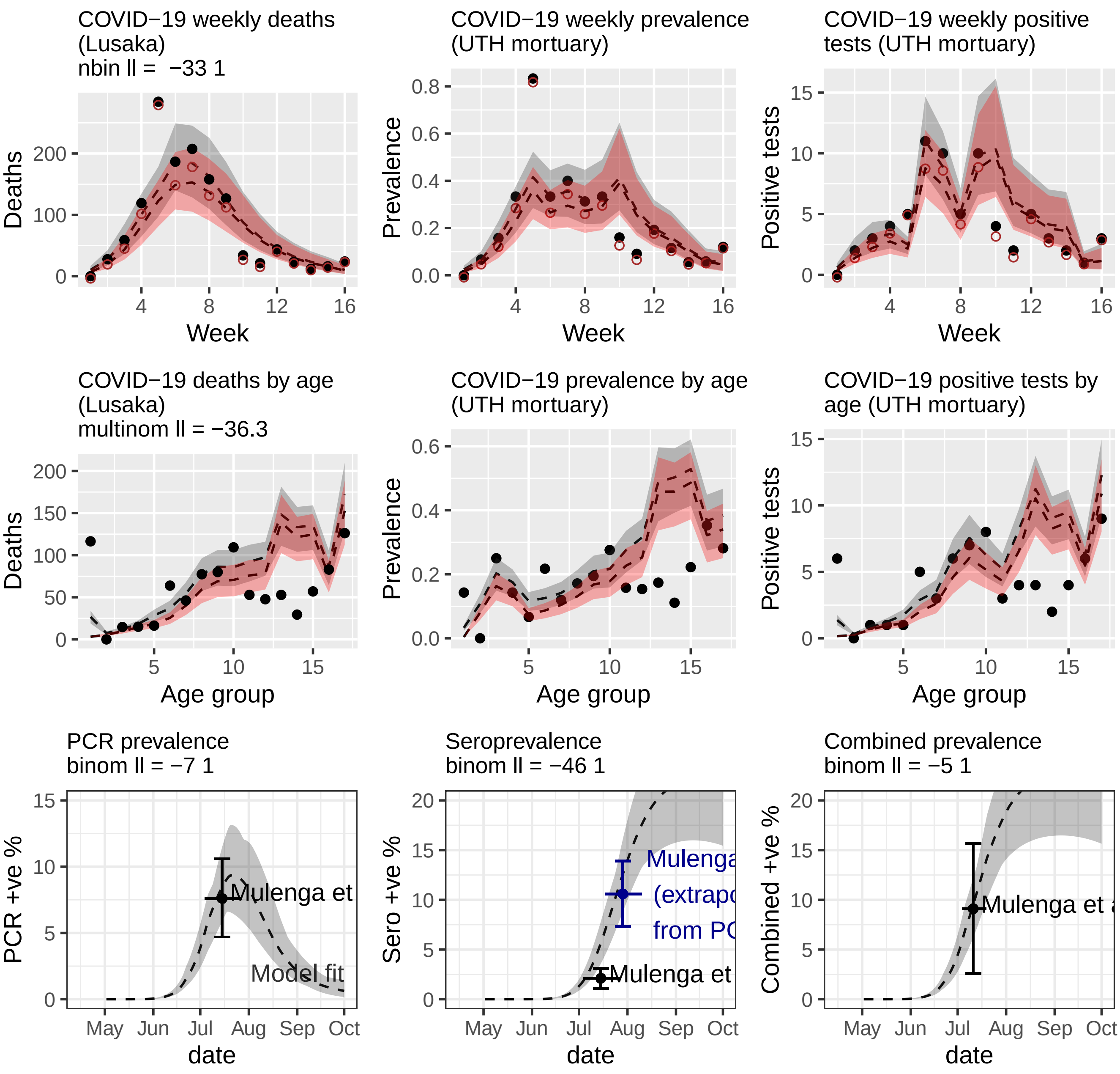
COVID−19 positive tests by age (UTH mortuary)

PCR prevalence
binom ll = −10 1

Seroprevalence
binom ll = −46 1

Combined prevalence
binom ll = −5 1

IFR x 1, Slope x 1


COVID−19 weekly deaths (Lusaka)
nbin ll = −33 1

COVID−19 weekly prevalence (UTH mortuary)

COVID−19 weekly positive tests (UTH mortuary)

COVID−19 deaths by age (Lusaka)
multinom ll = −36.3

COVID−19 prevalence by age (UTH mortuary)

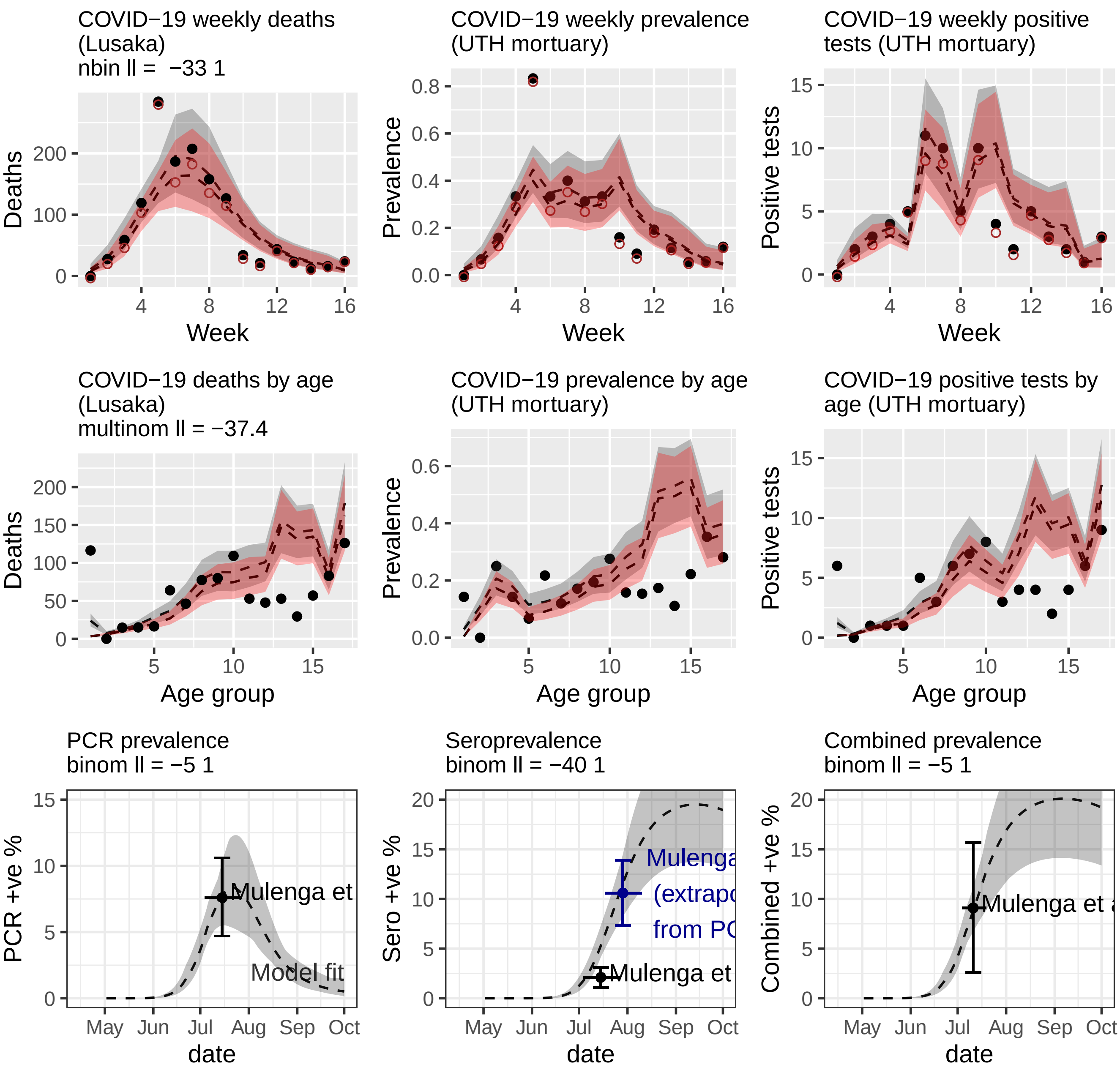
COVID−19 positive tests by age (UTH mortuary)

PCR prevalence
binom ll = −7 1

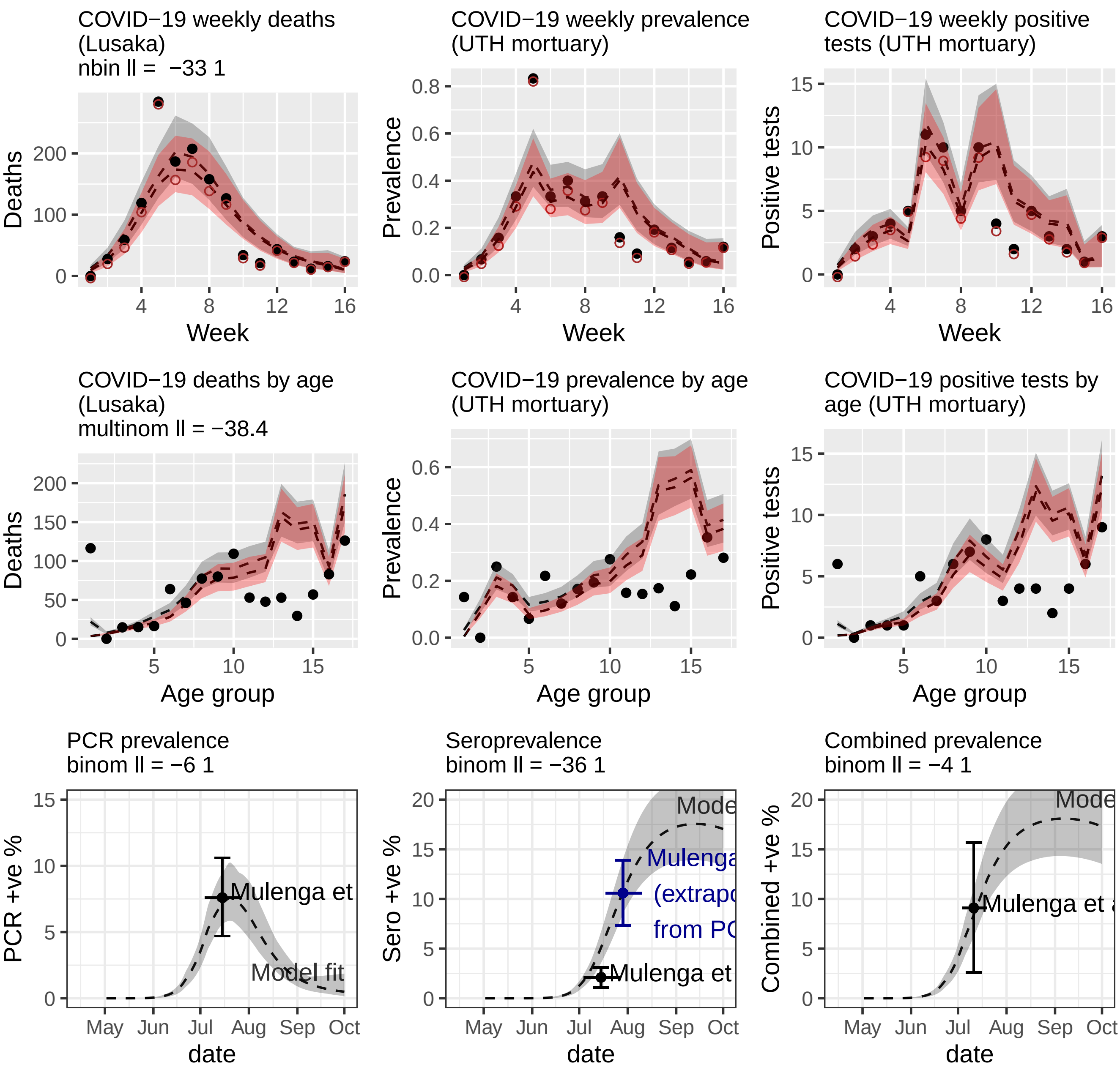
Seroprevalence
binom ll = −46 1

Combined prevalence
binom ll = −5 1

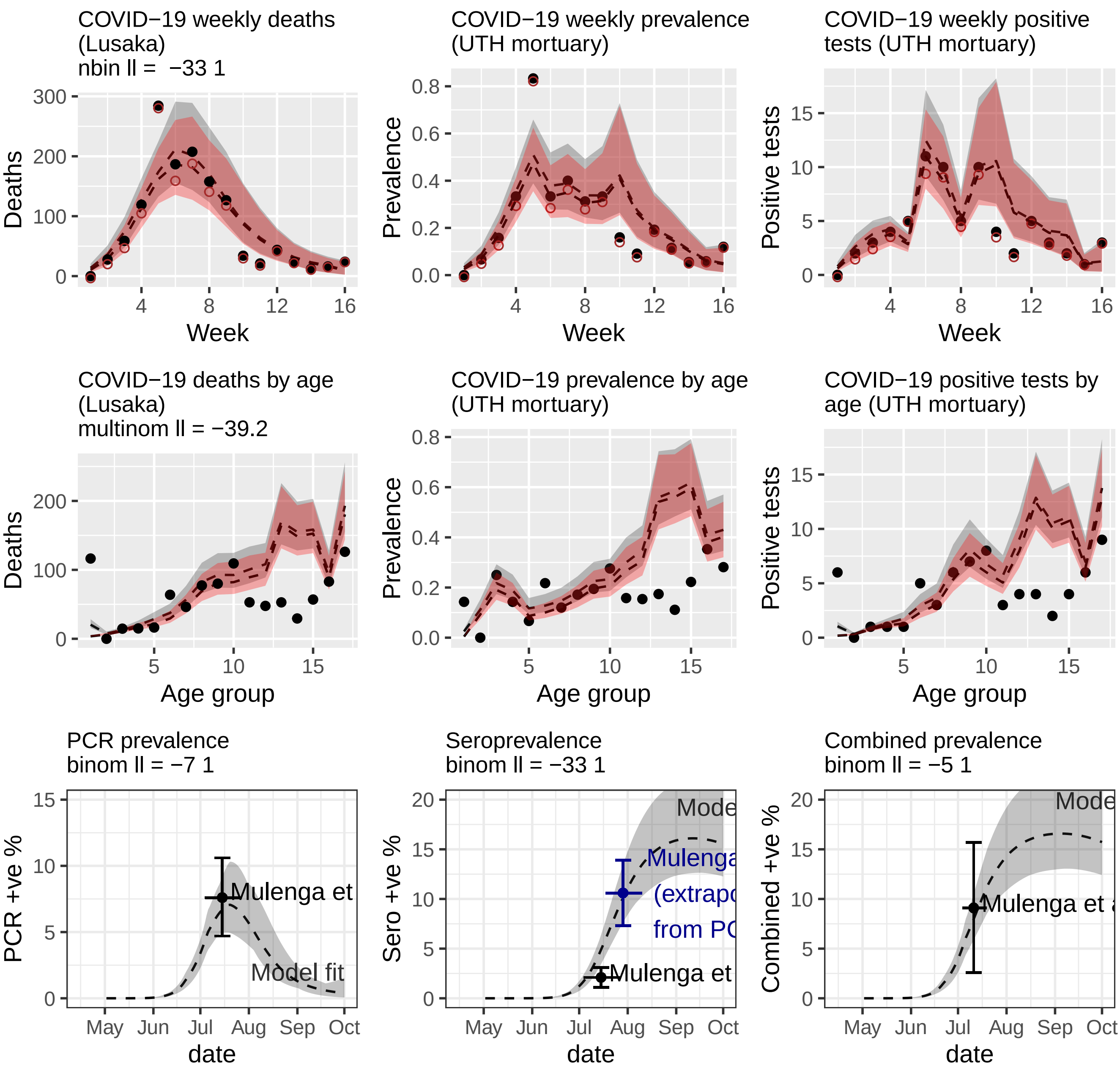
IFR x 1.2, Slope x 1



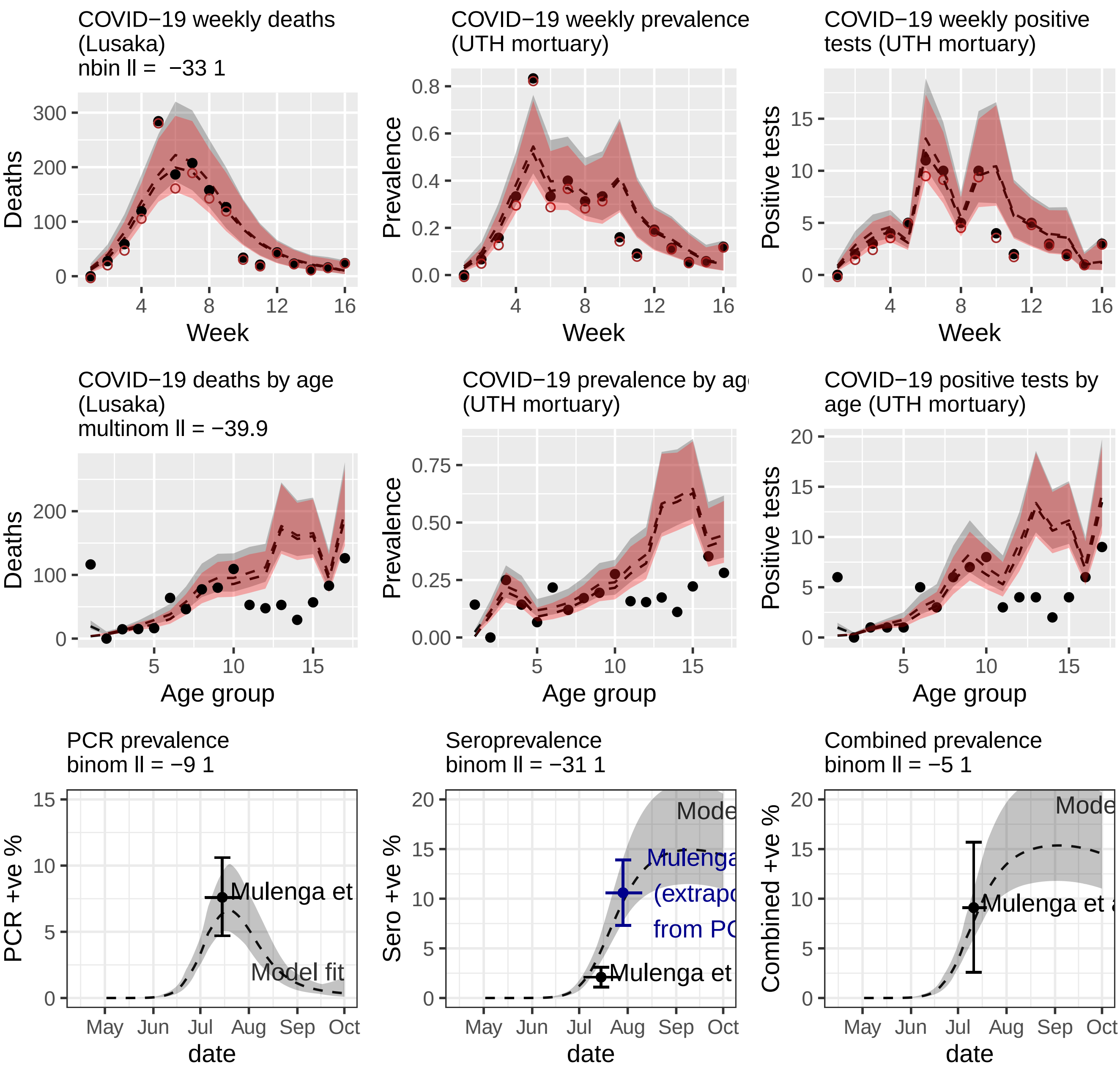
IFR x 1.4, Slope x 1



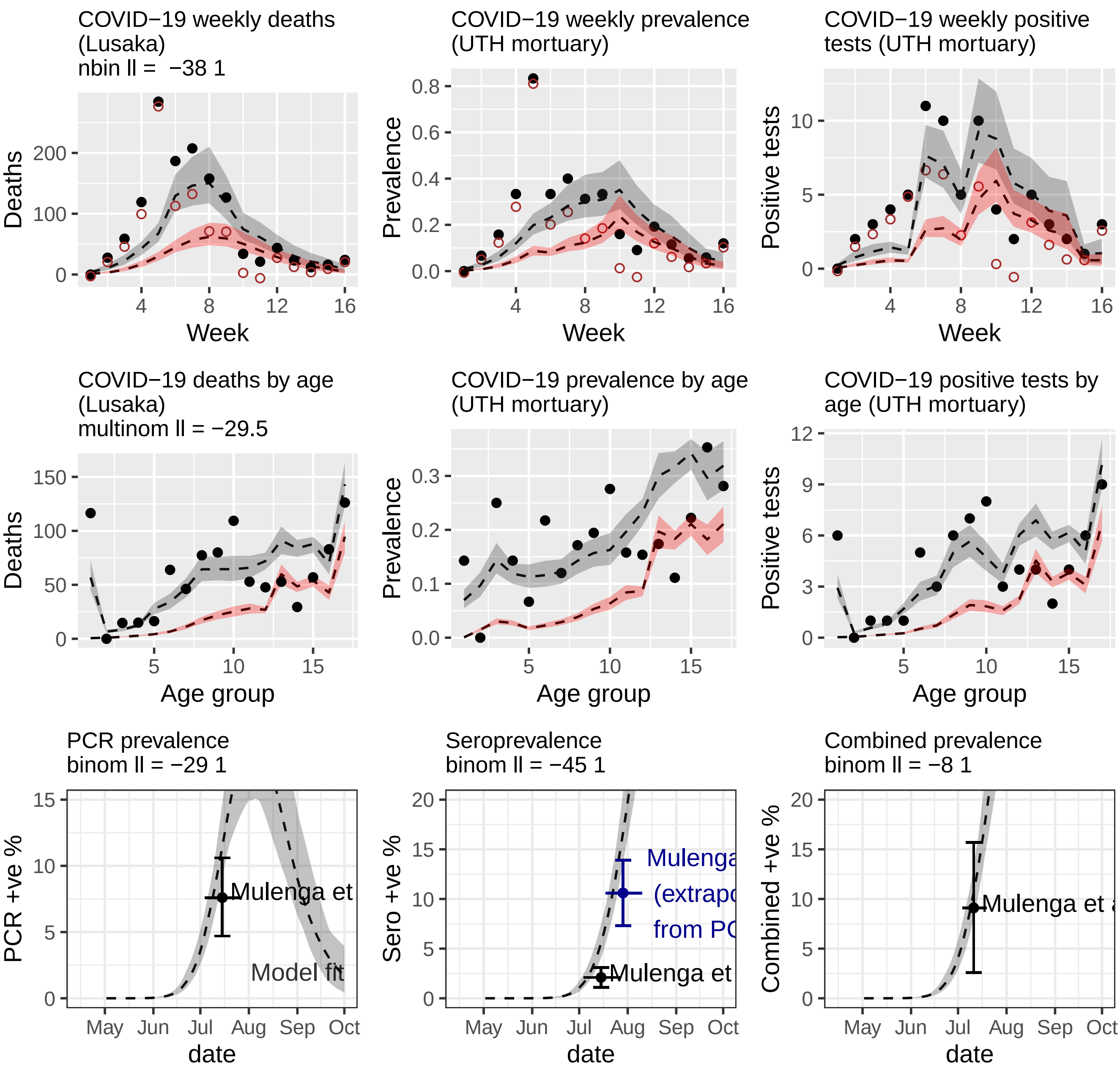
IFR x 1.6, Slope x 1



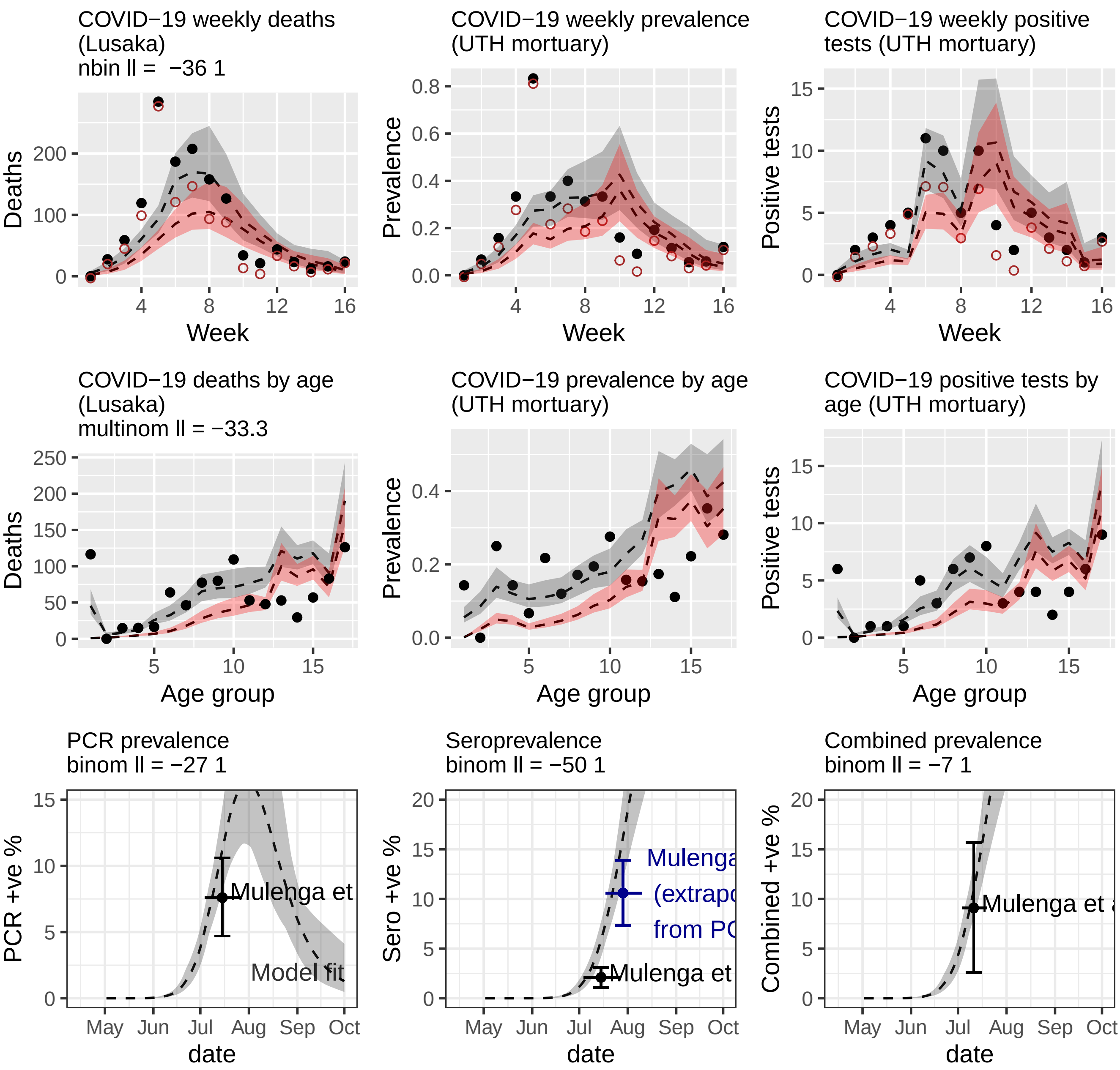
IFR x 1.8, Slope x 1



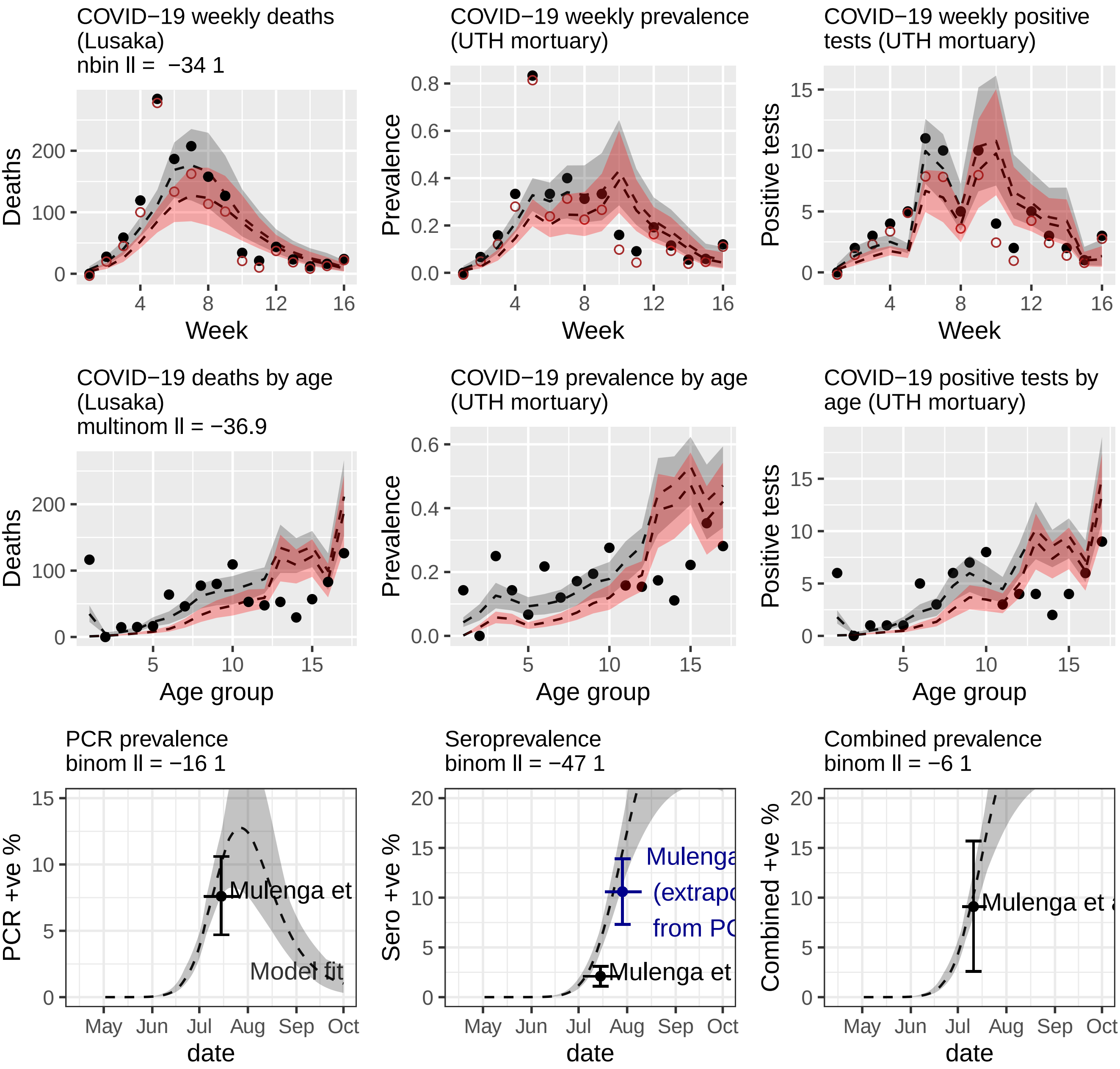
IFR x 0.2, Slope x 1.2



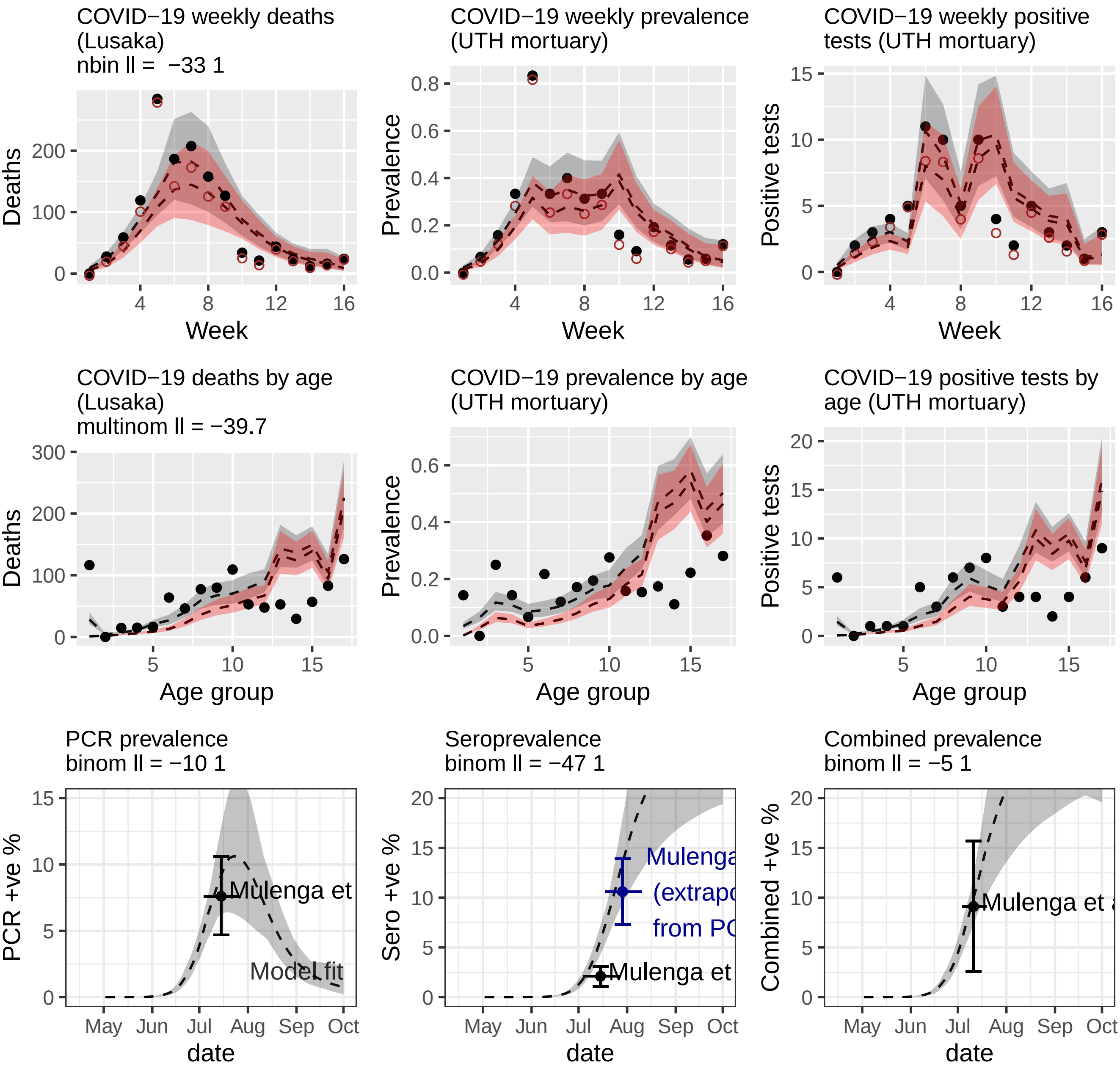
IFR x 0.4, Slope x 1.2



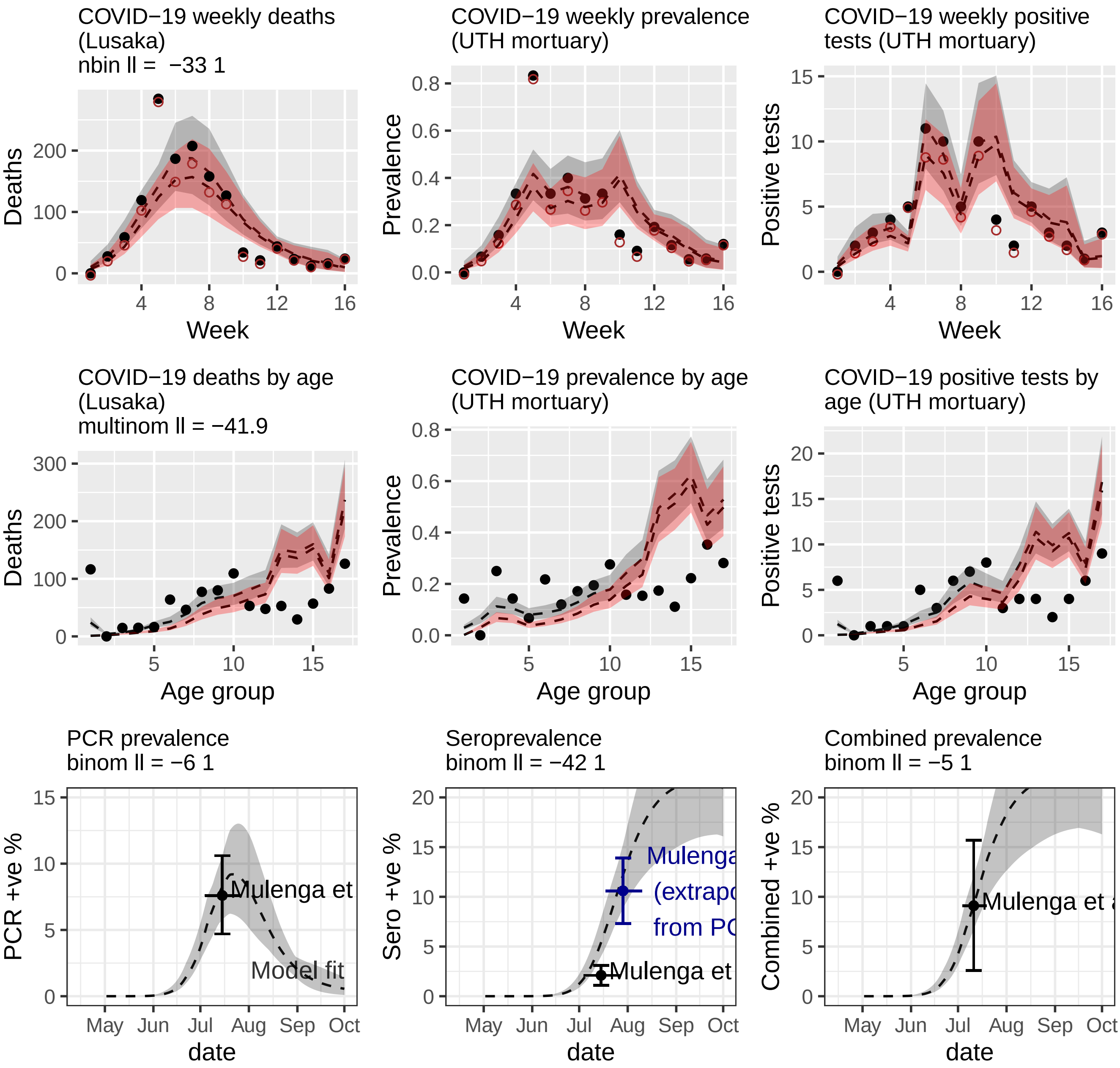
IFR x 0.6, Slope x 1.2



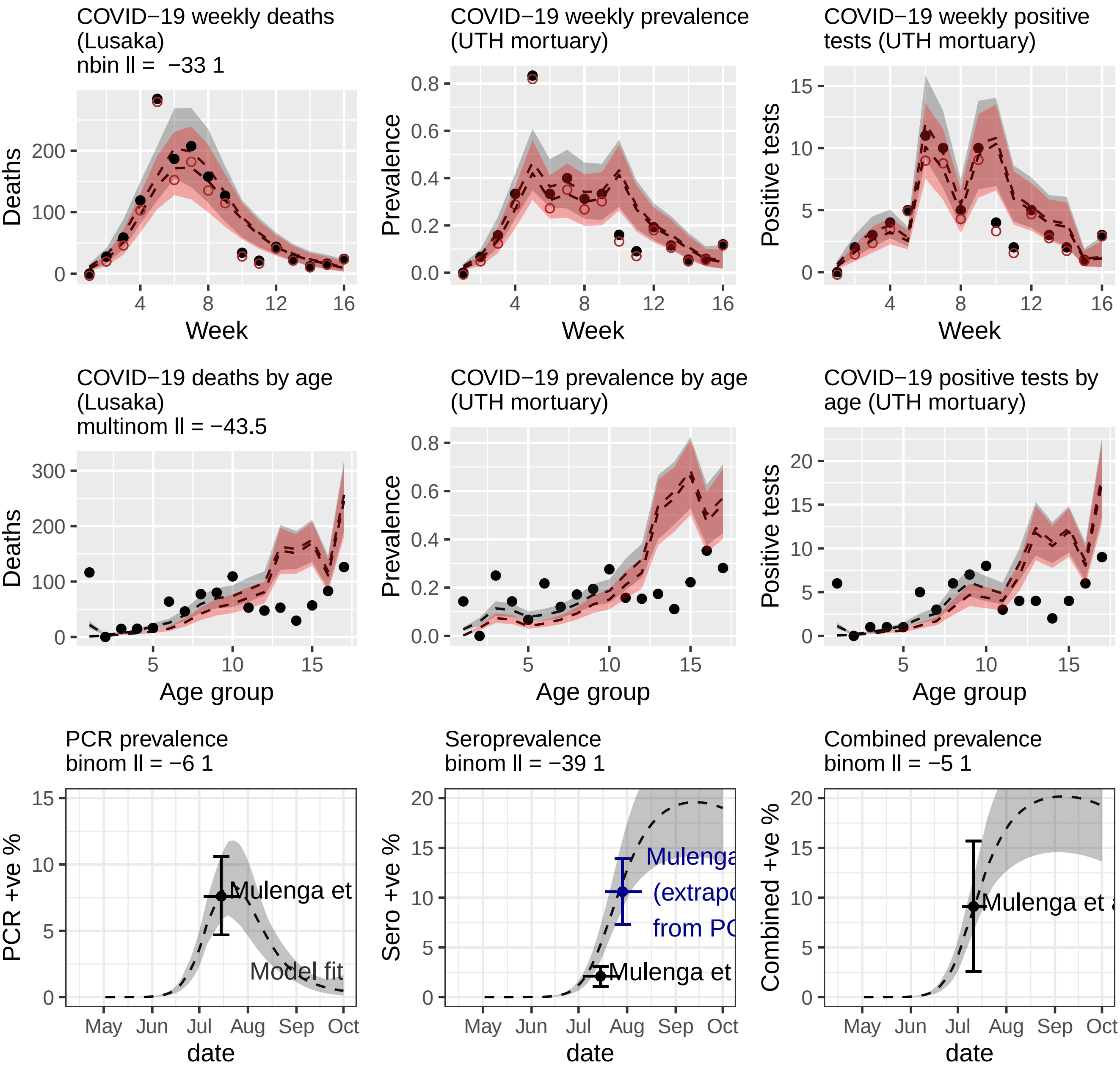
IFR x 0.8, Slope x 1.2



IFR x 1, Slope x 1.2



IFR x 1.2, Slope x 1.2


COVID−19 weekly deaths (Lusaka)
nbin ll = −33 1

COVID−19 weekly prevalence (UTH mortuary)

COVID−19 weekly positive tests (UTH mortuary)

COVID−19 deaths by age (Lusaka)
multinom ll = −43.5

COVID−19 prevalence by age (UTH mortuary)

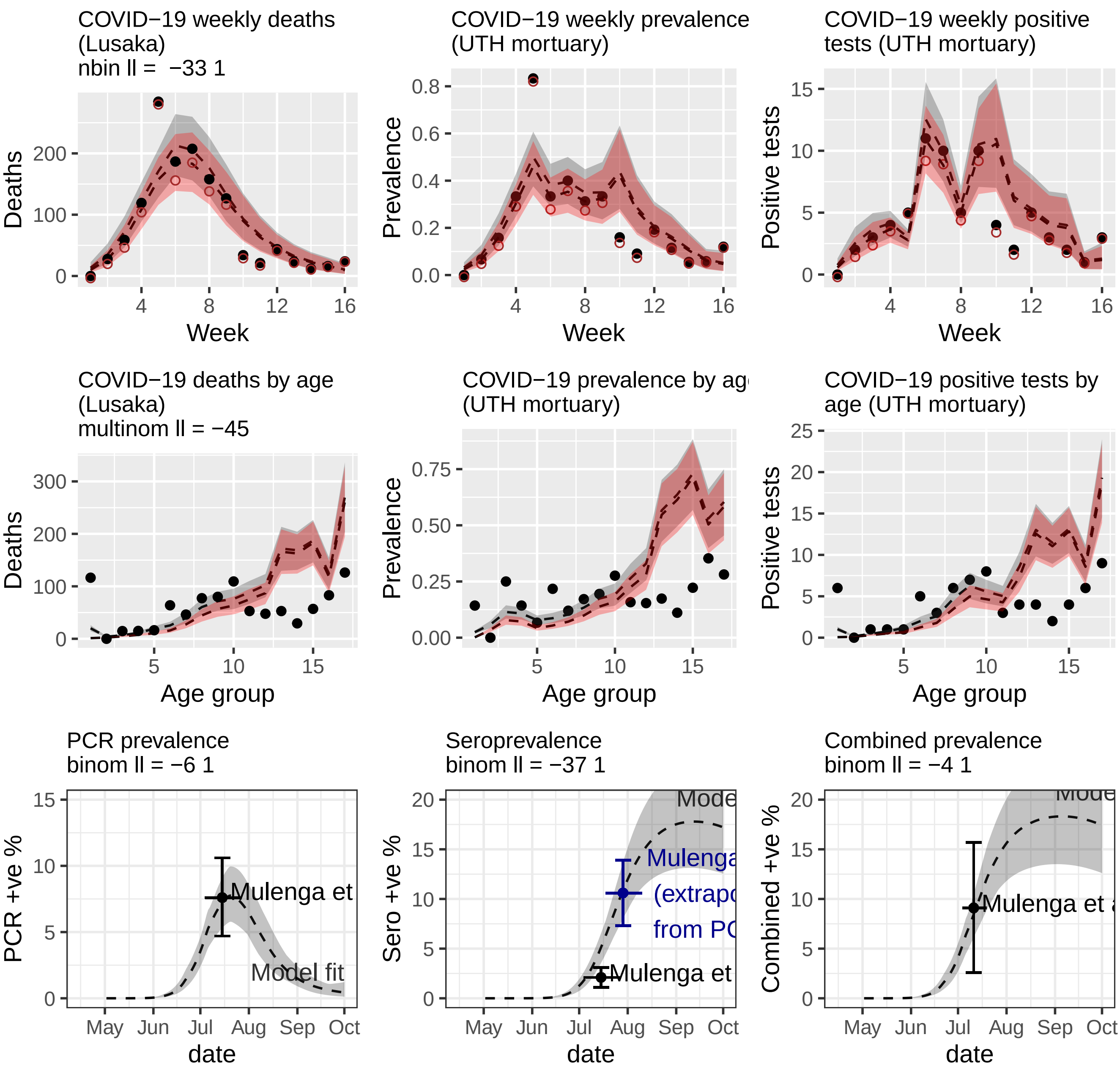
COVID−19 positive tests by age (UTH mortuary)

PCR prevalence
binom ll = −6 1

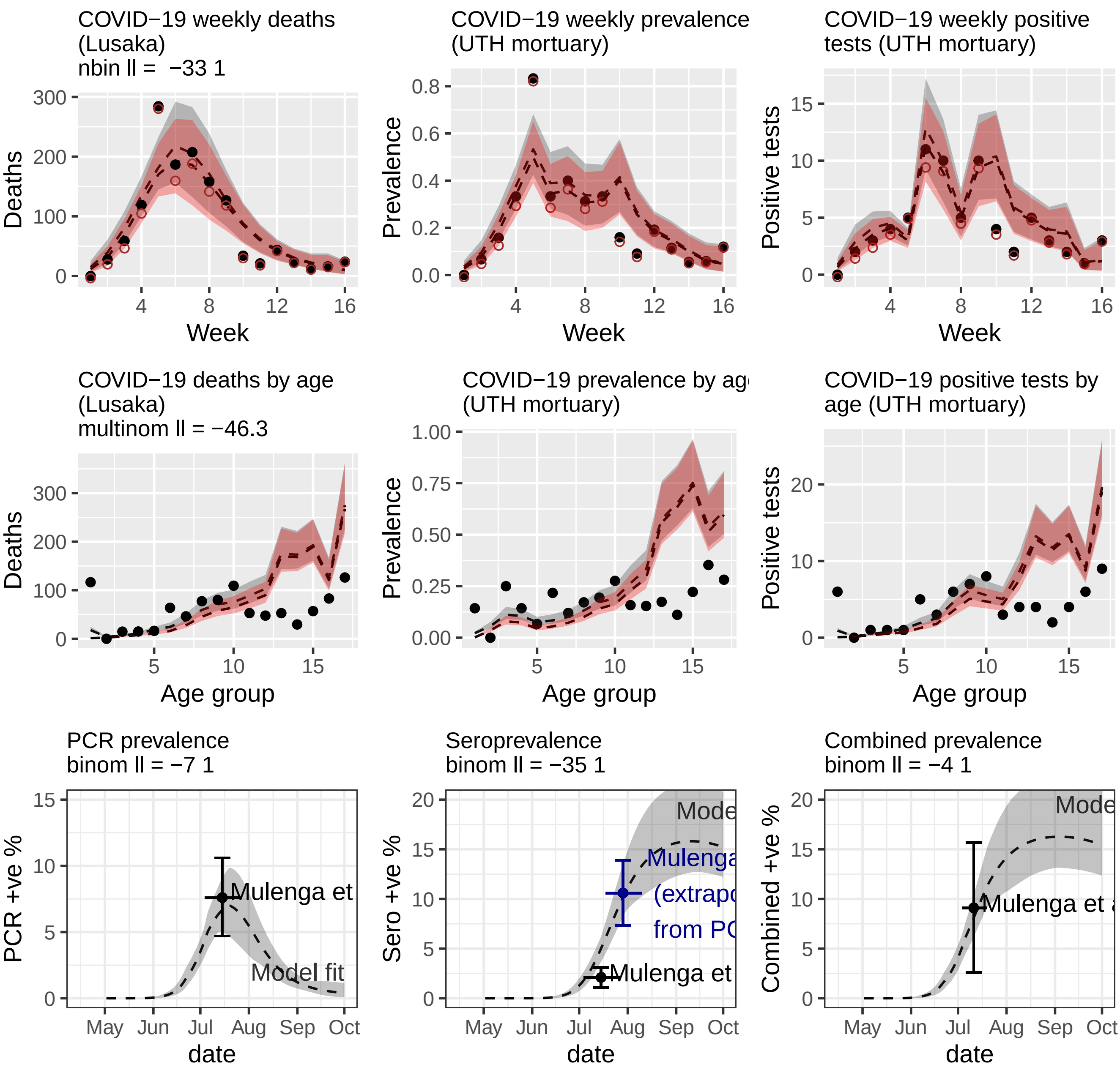
Seroprevalence
binom ll = −39 1

Combined prevalence
binom ll = −5 1

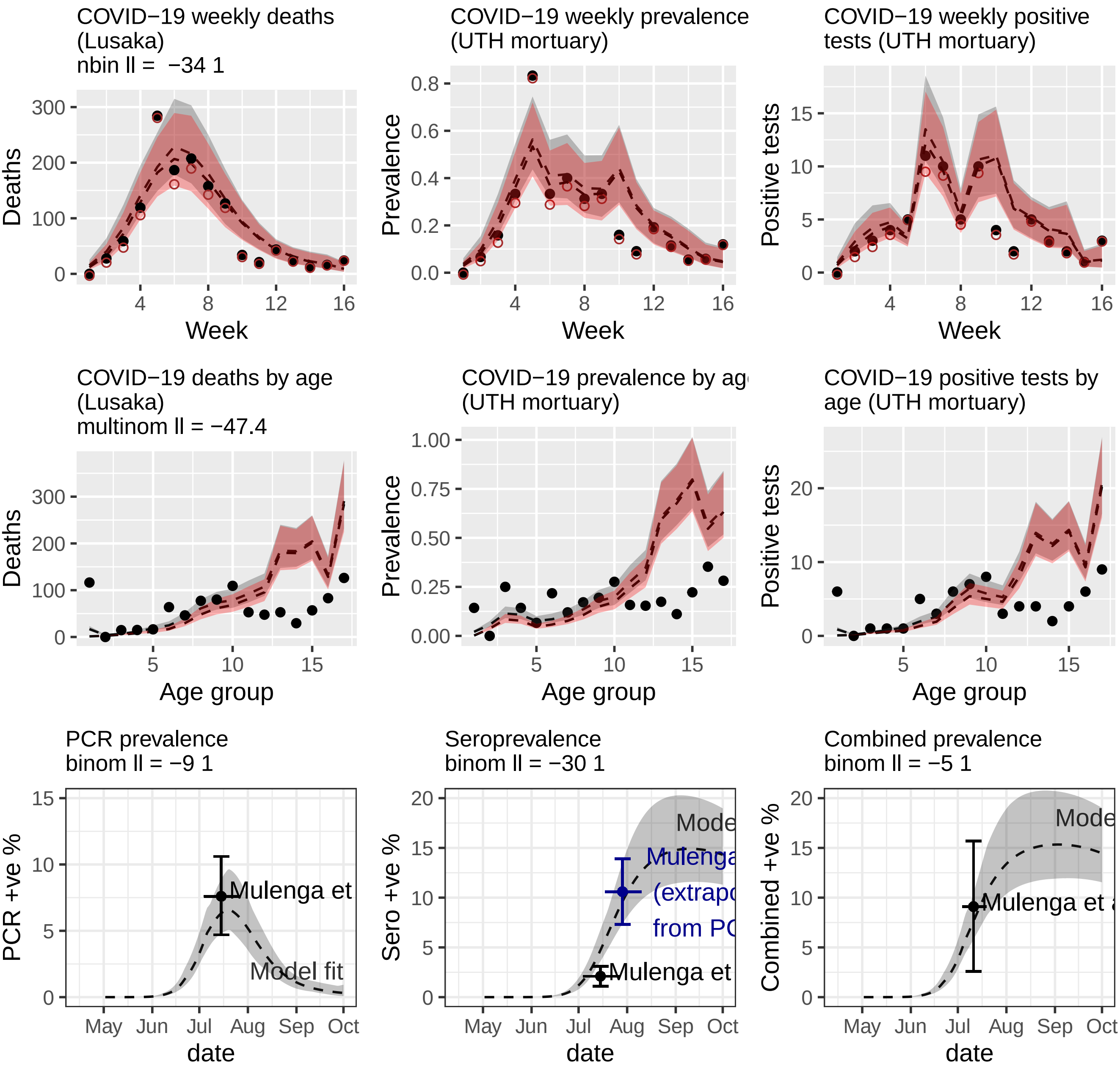
IFR x 1.4, Slope x 1.2



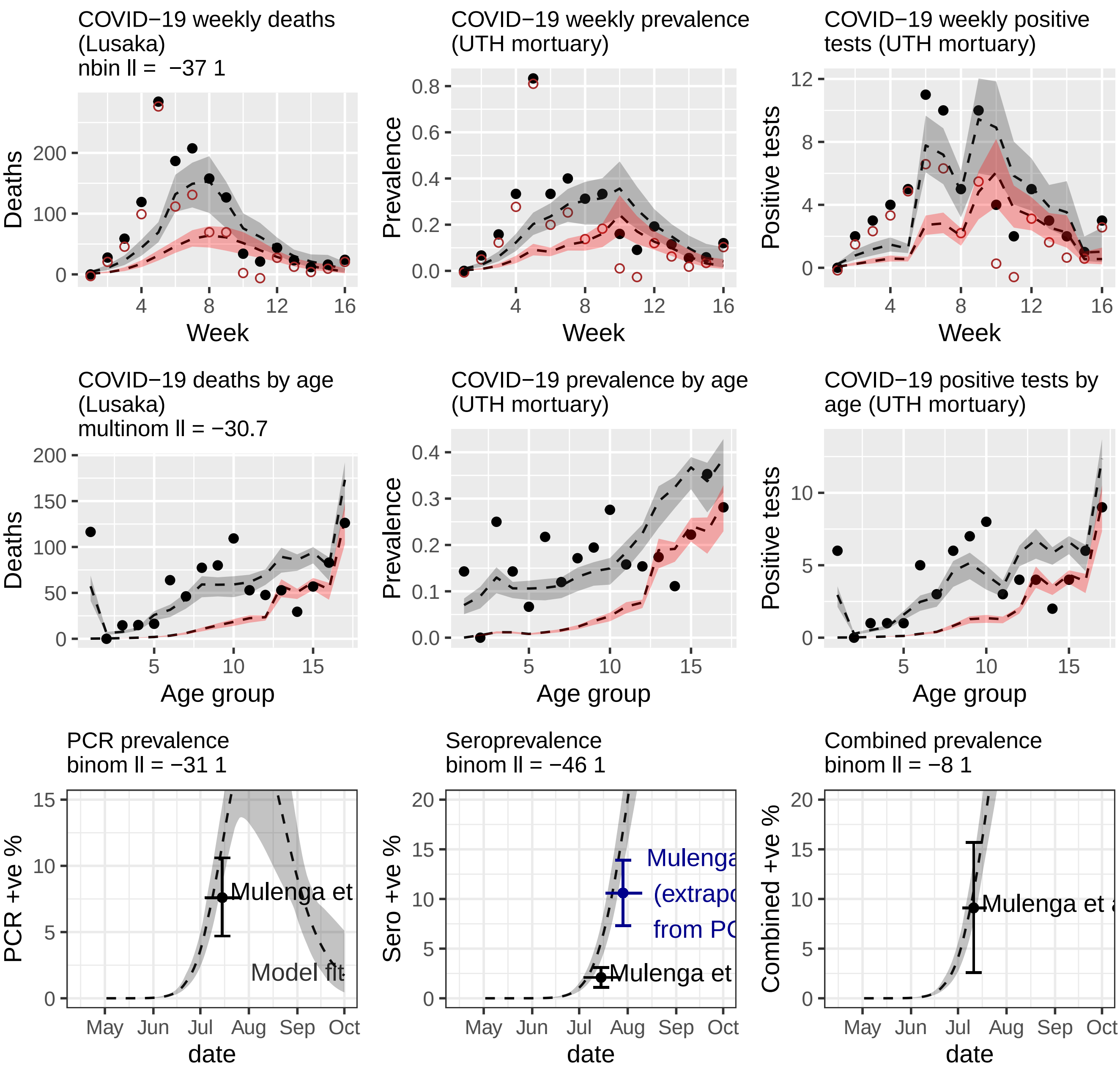
IFR x 1.6, Slope x 1.2



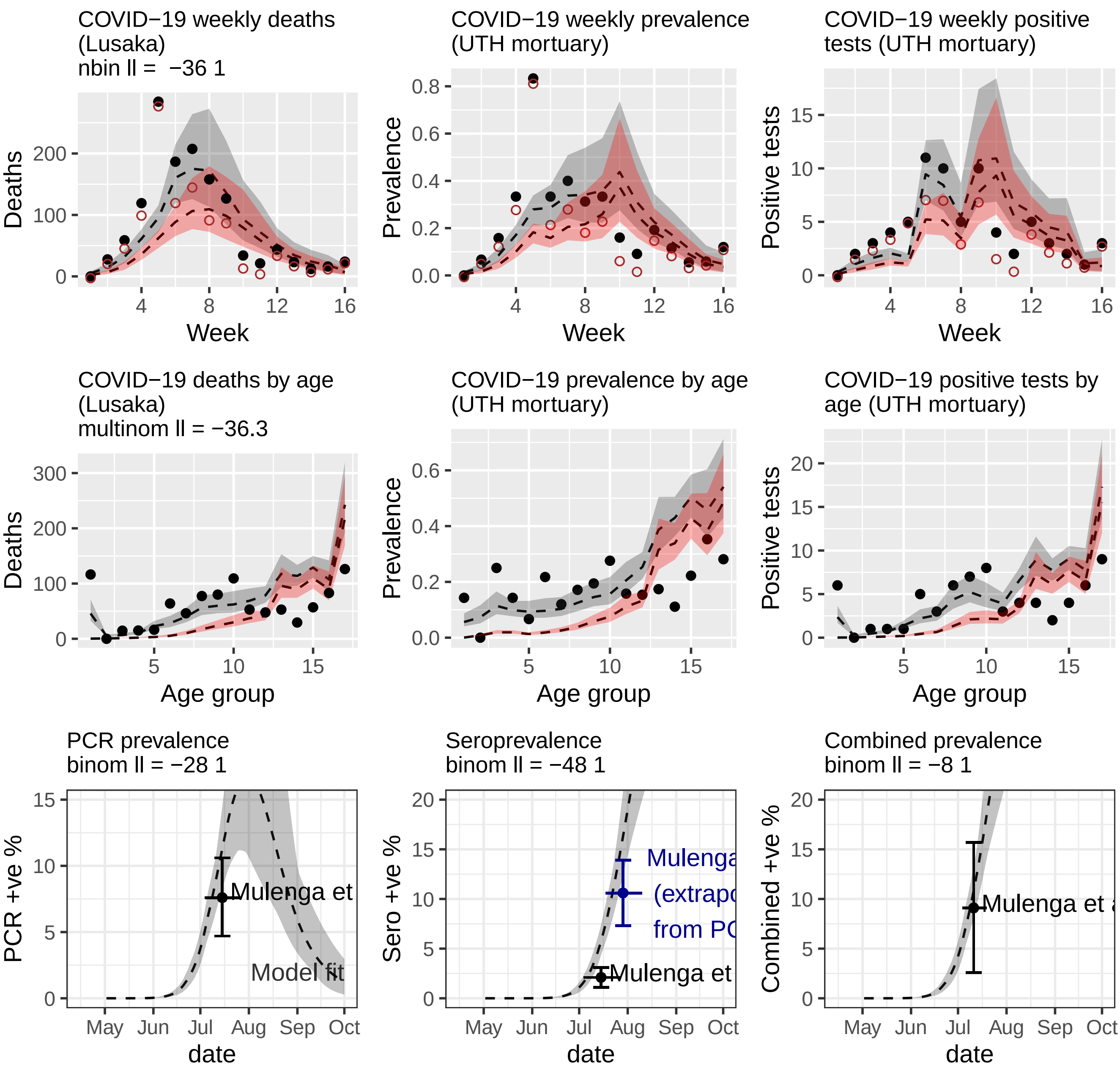
IFR x 1.8, Slope x 1.2



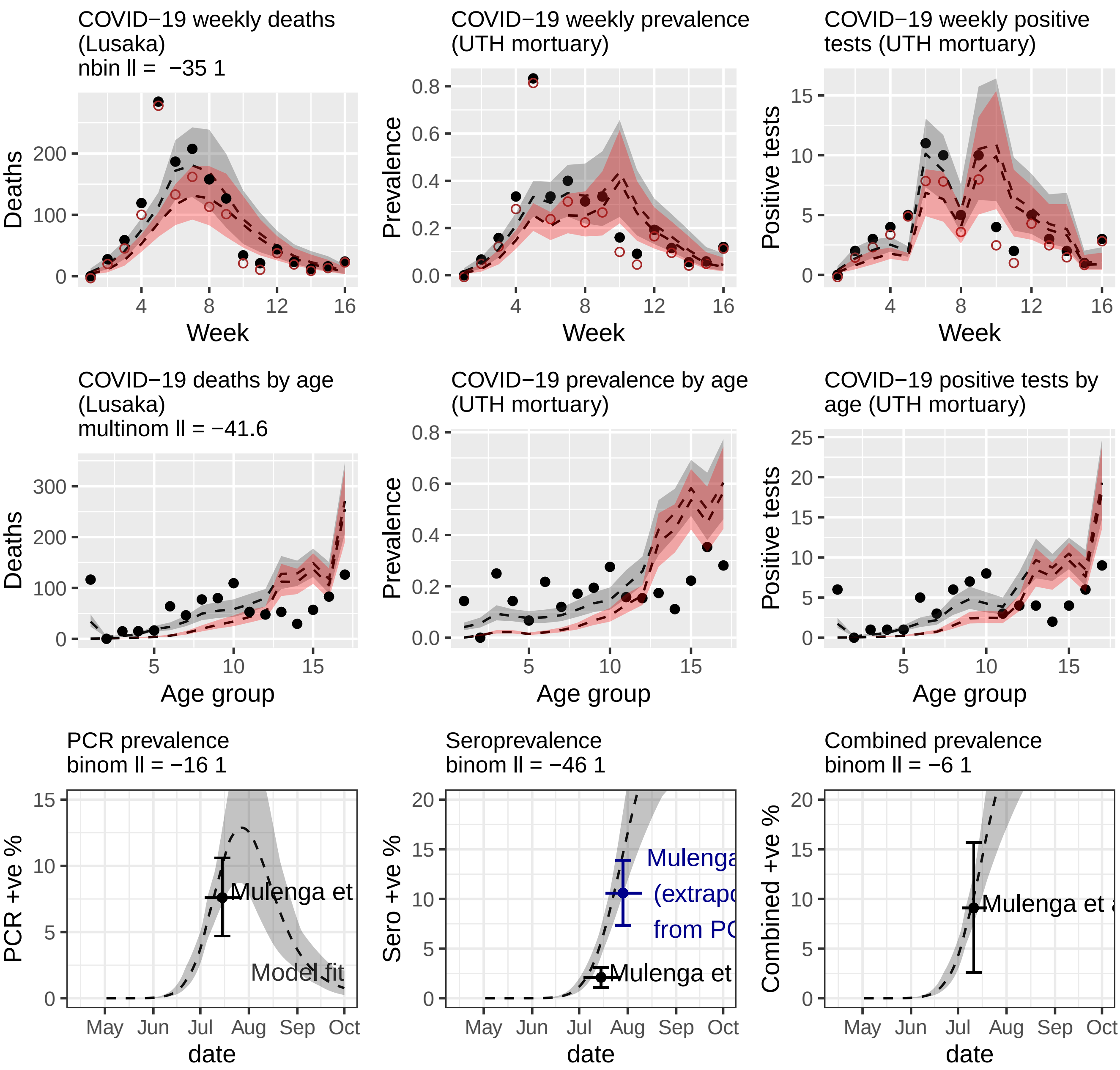
IFR x 0.2, Slope x 1.4



IFR x 0.4, Slope x 1.4



IFR x 0.6, Slope x 1.4



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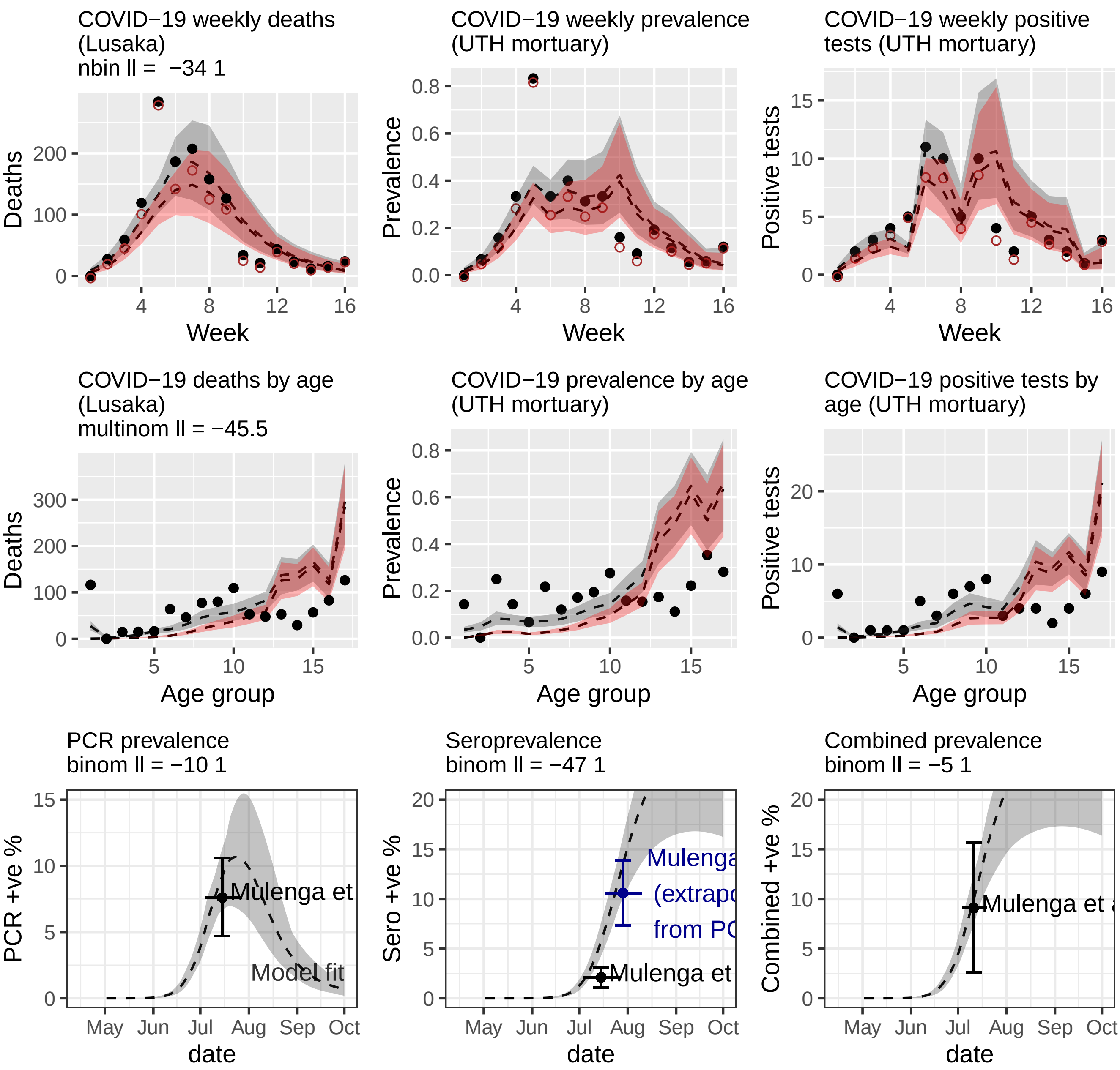
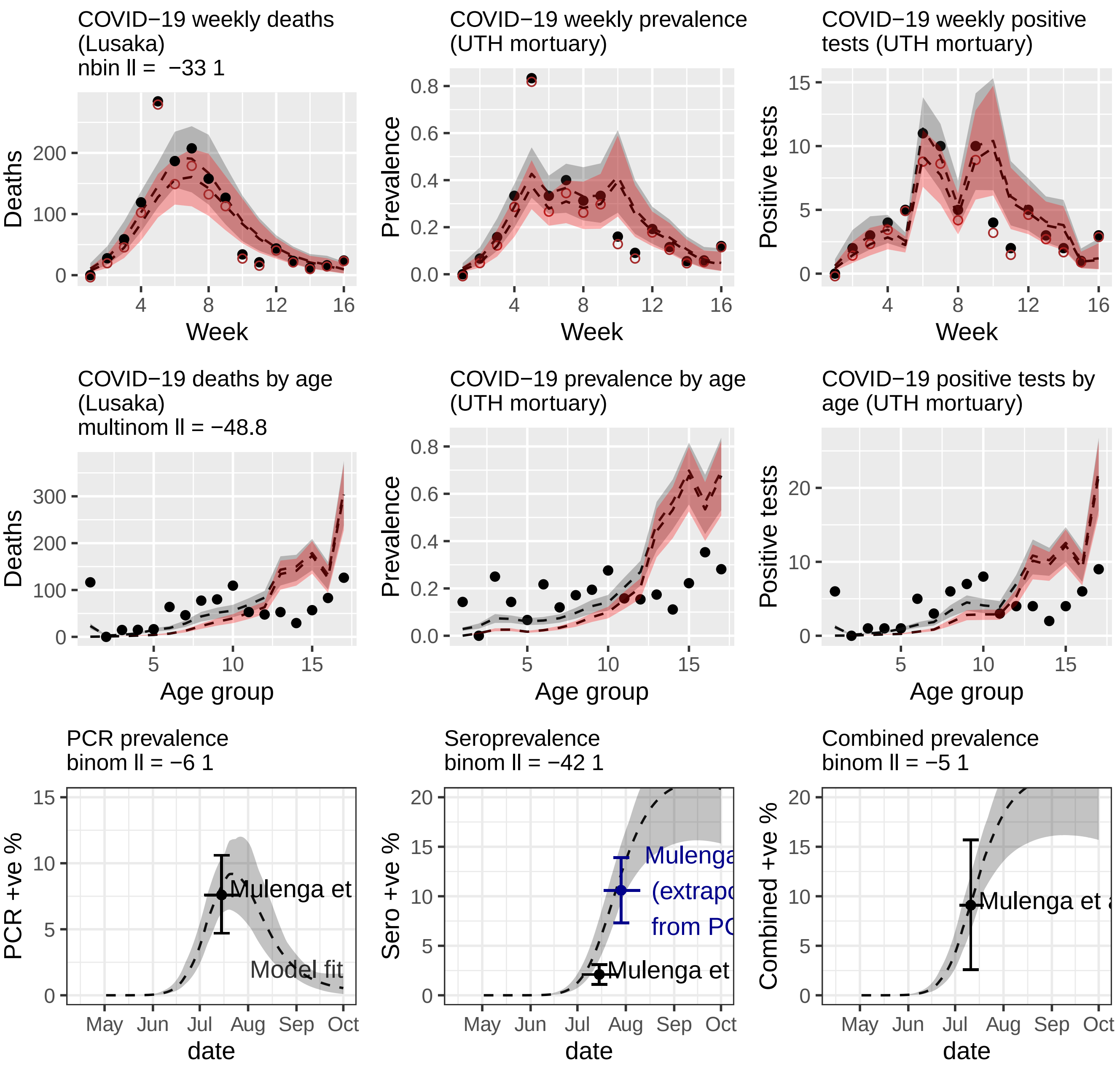


IFR x 1, Slope x 1.4



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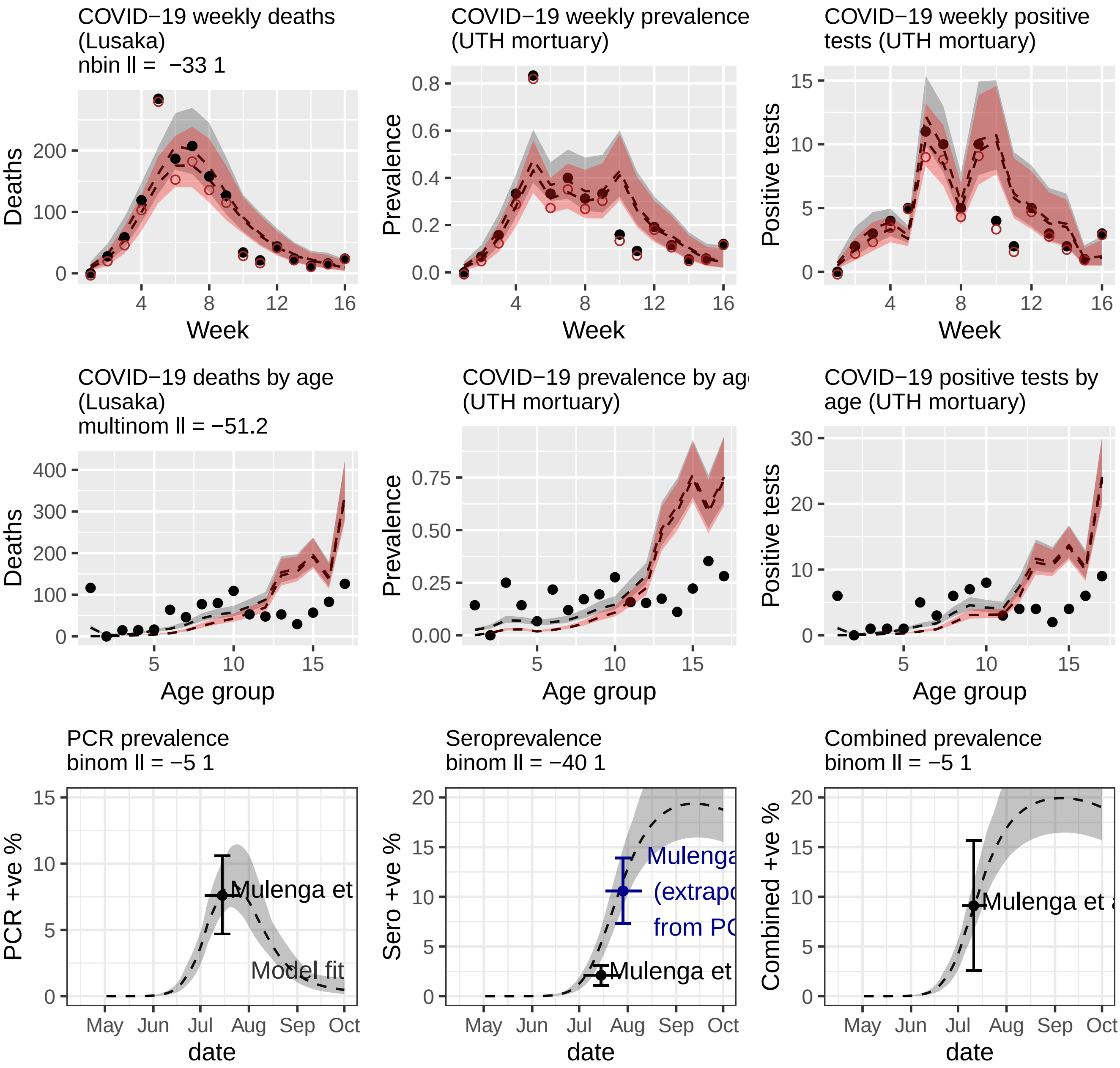

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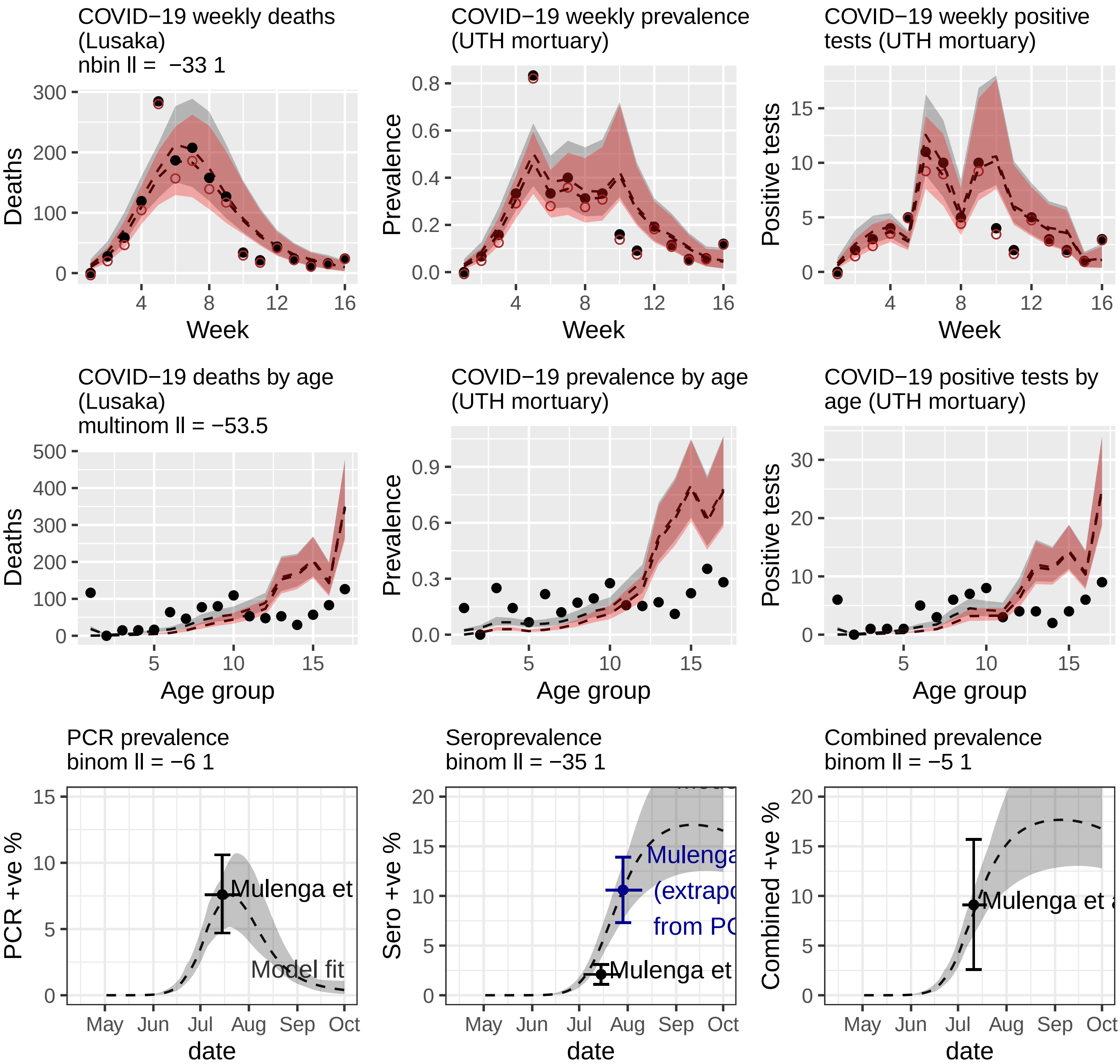

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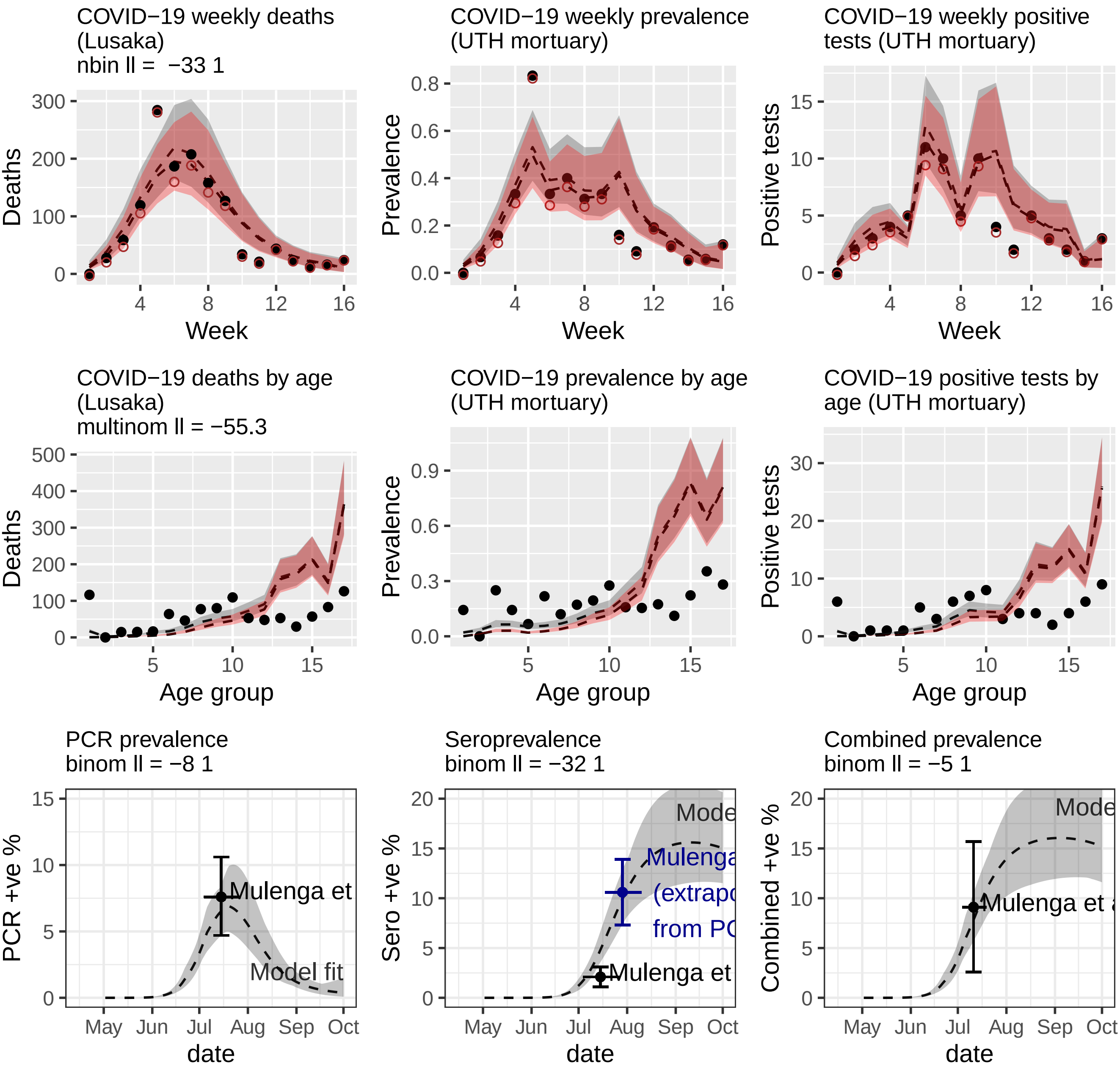

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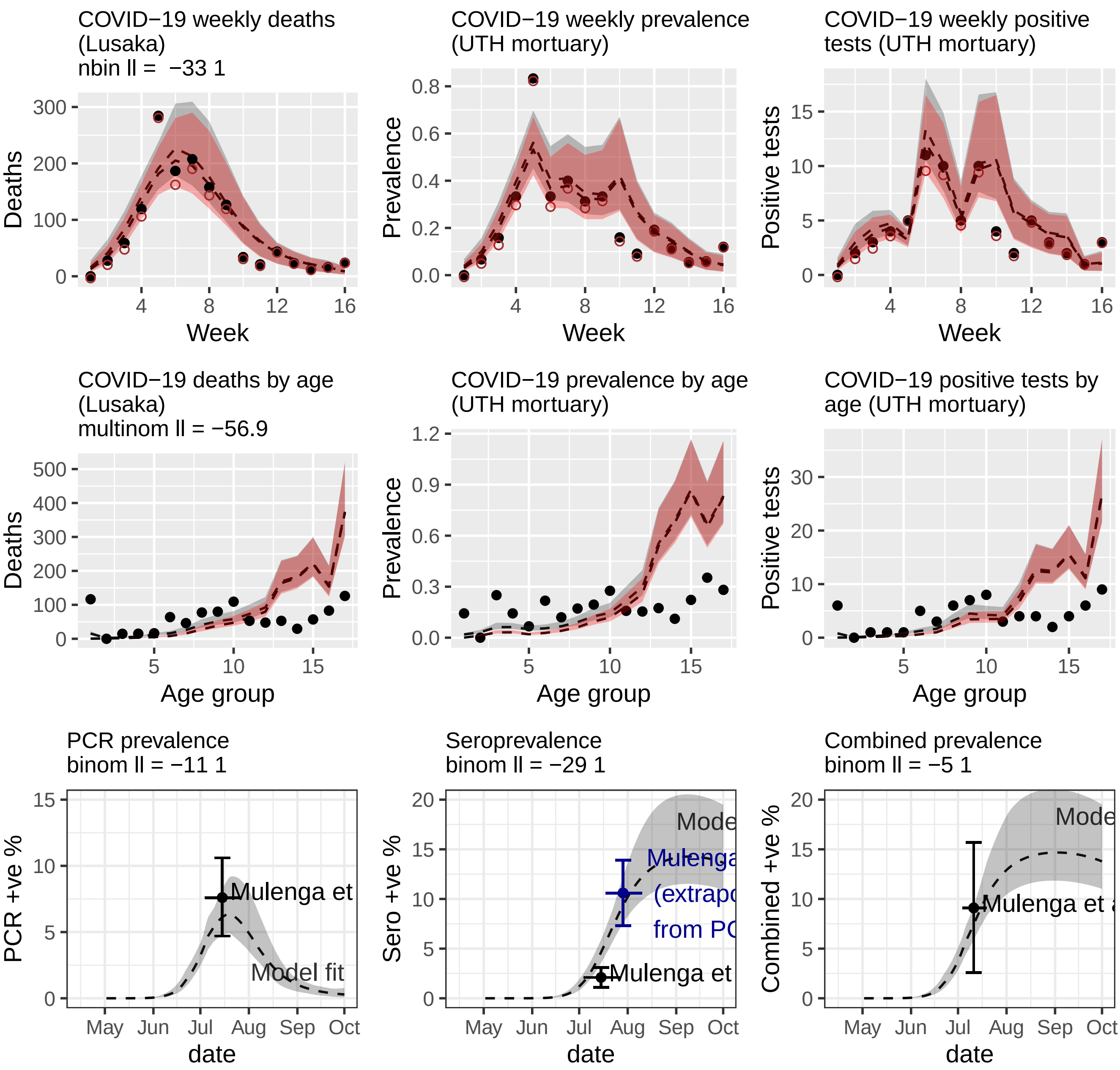

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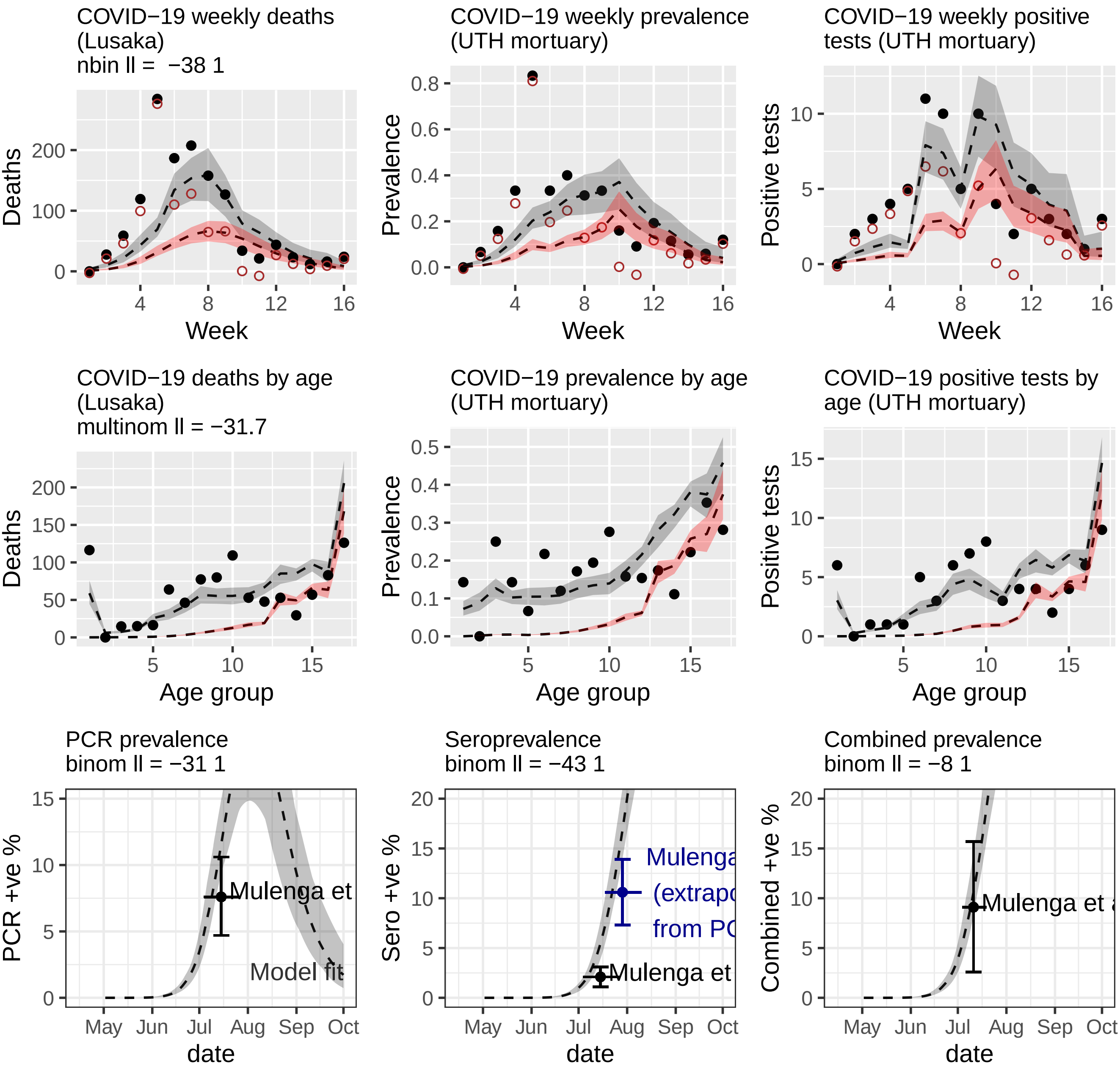

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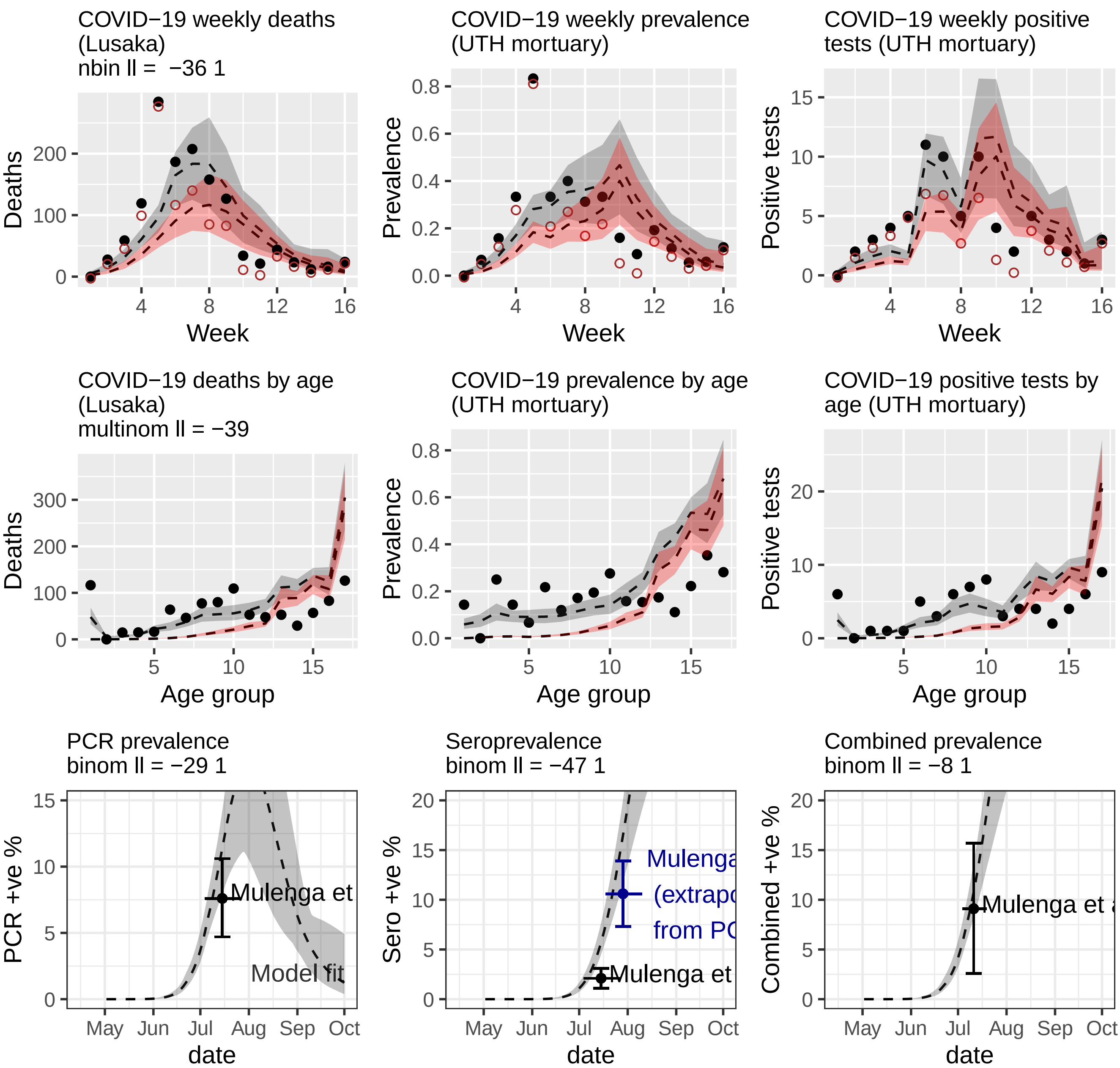

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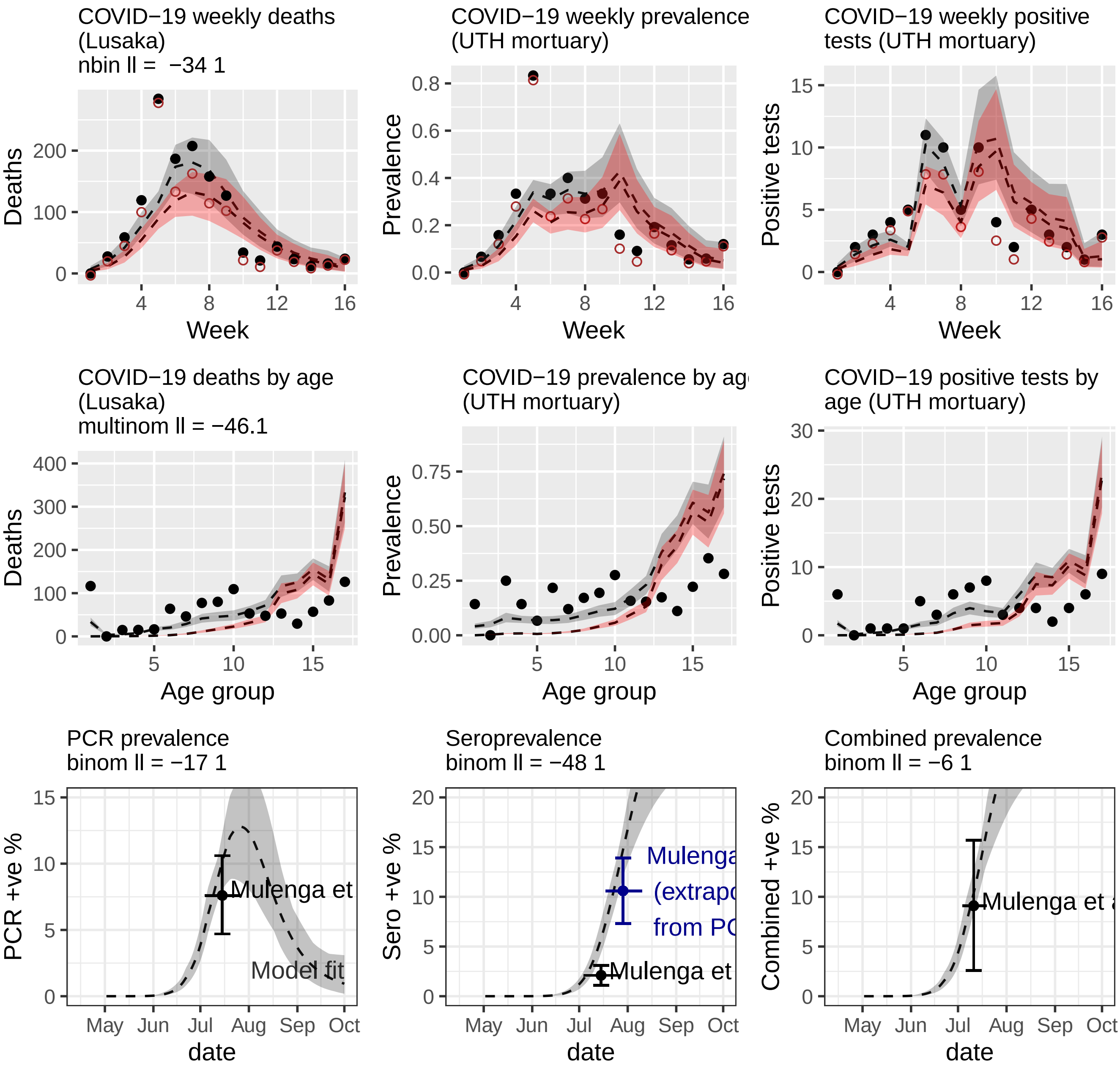
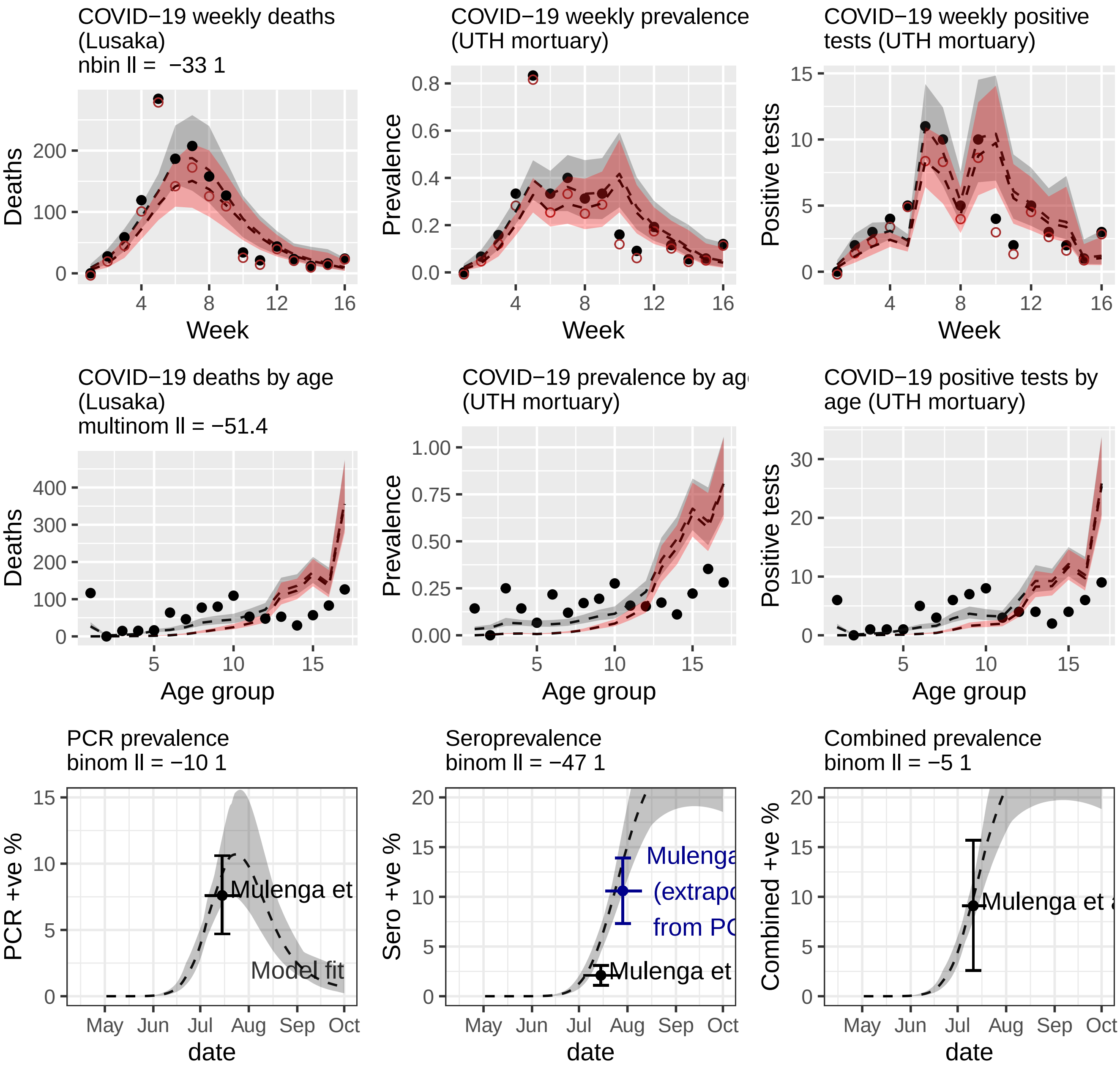
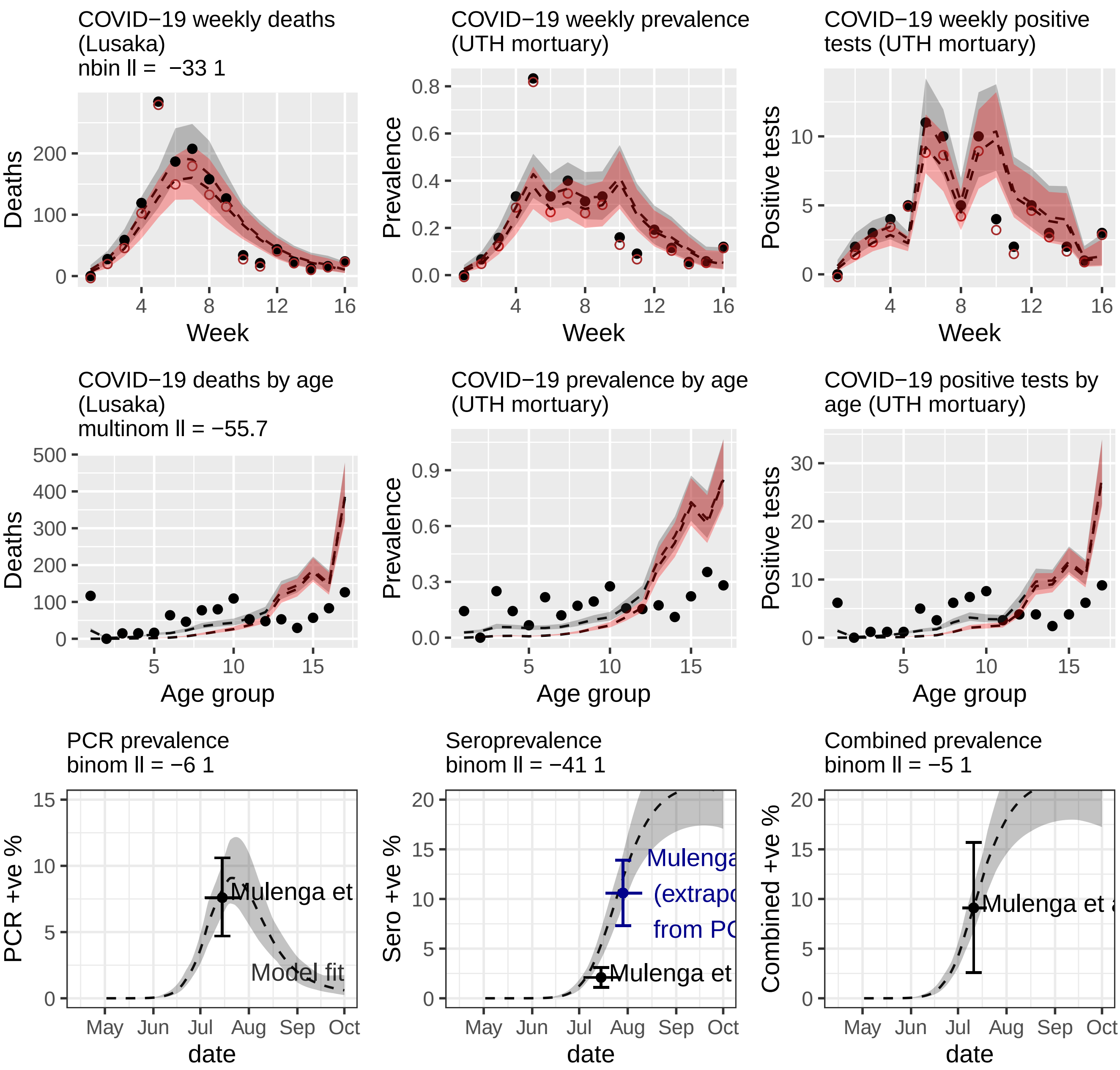


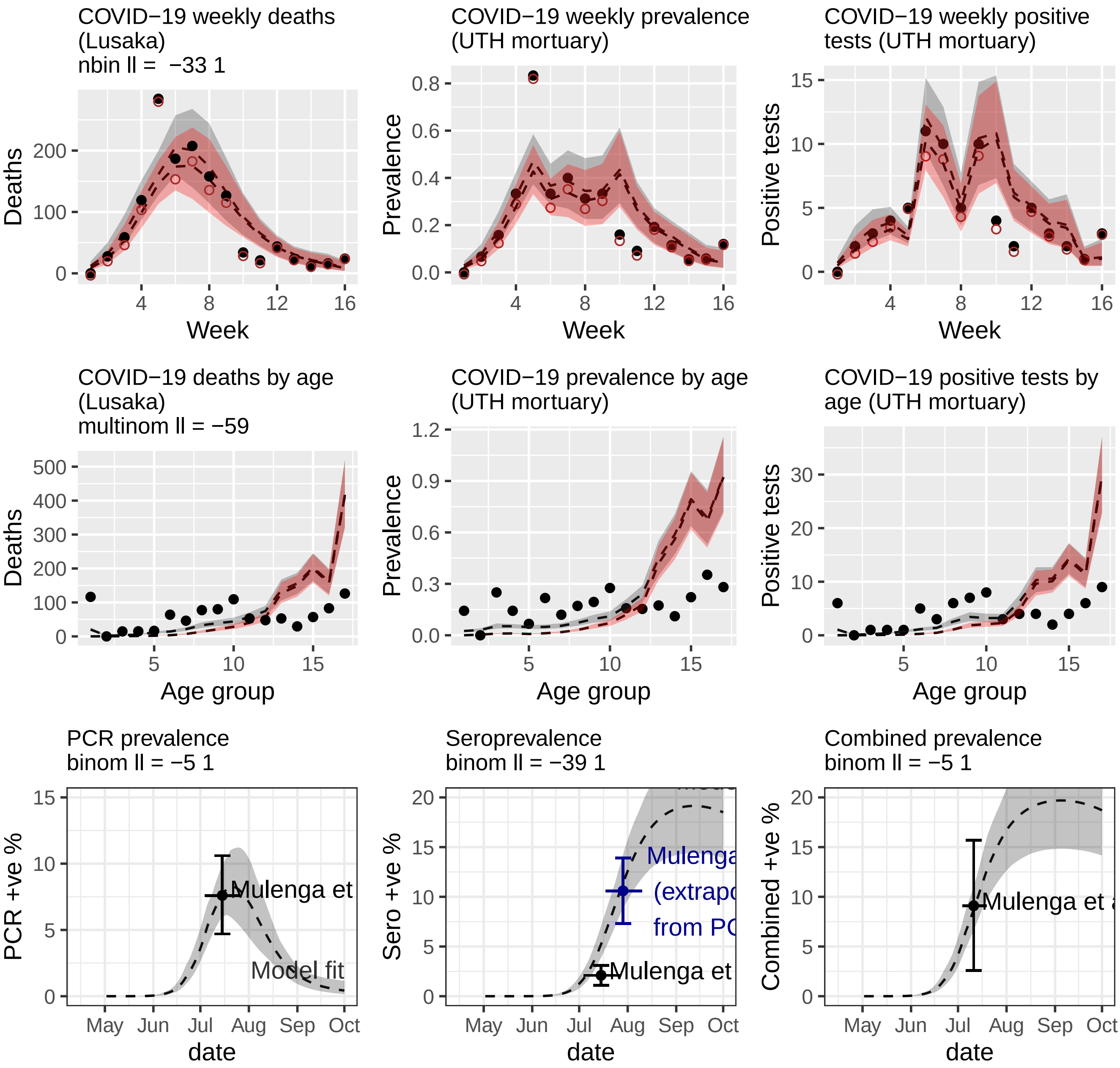
IFR x 0.8, Slope x 1.6



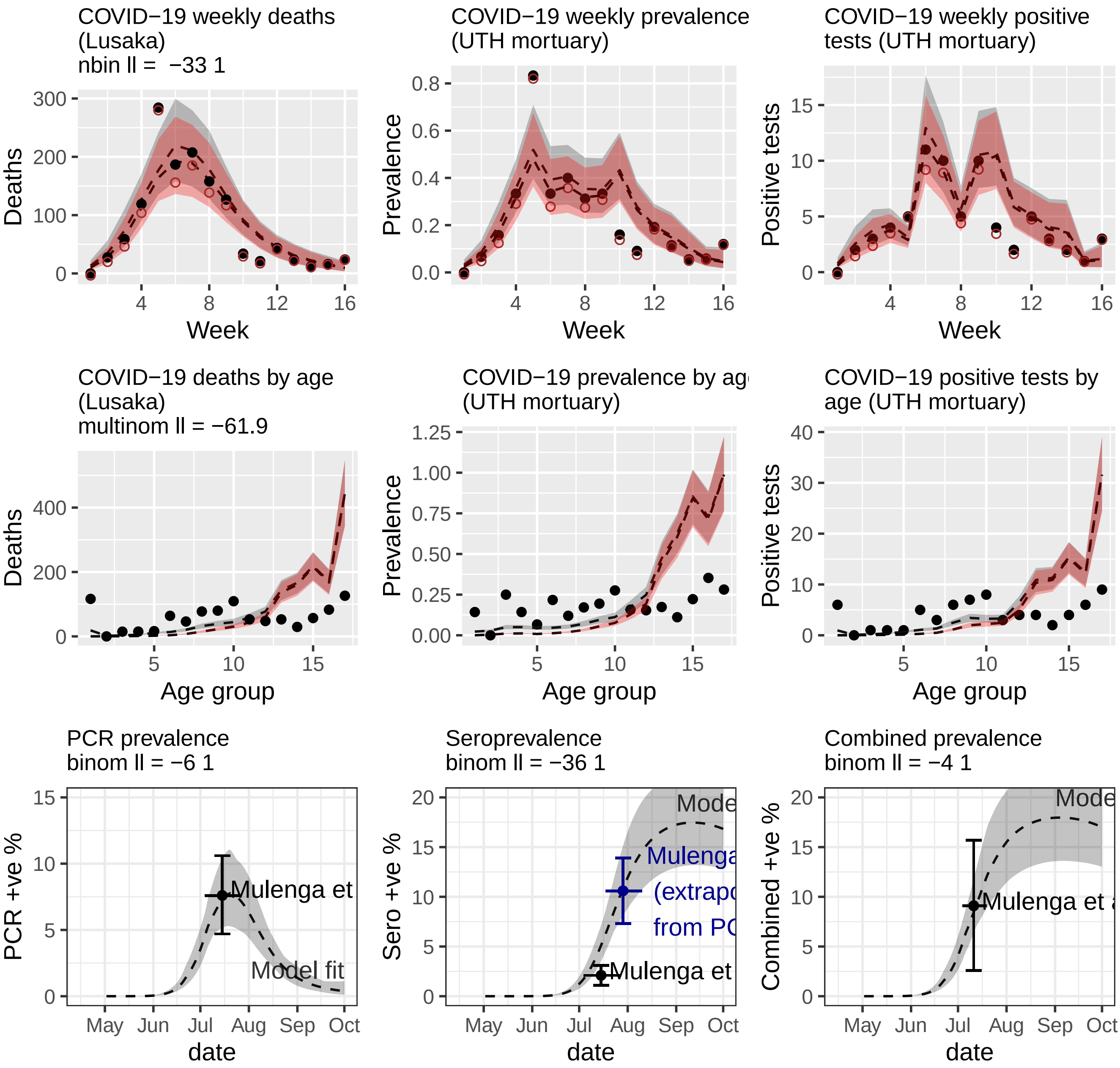
IFR x 1, Slope x 1.6



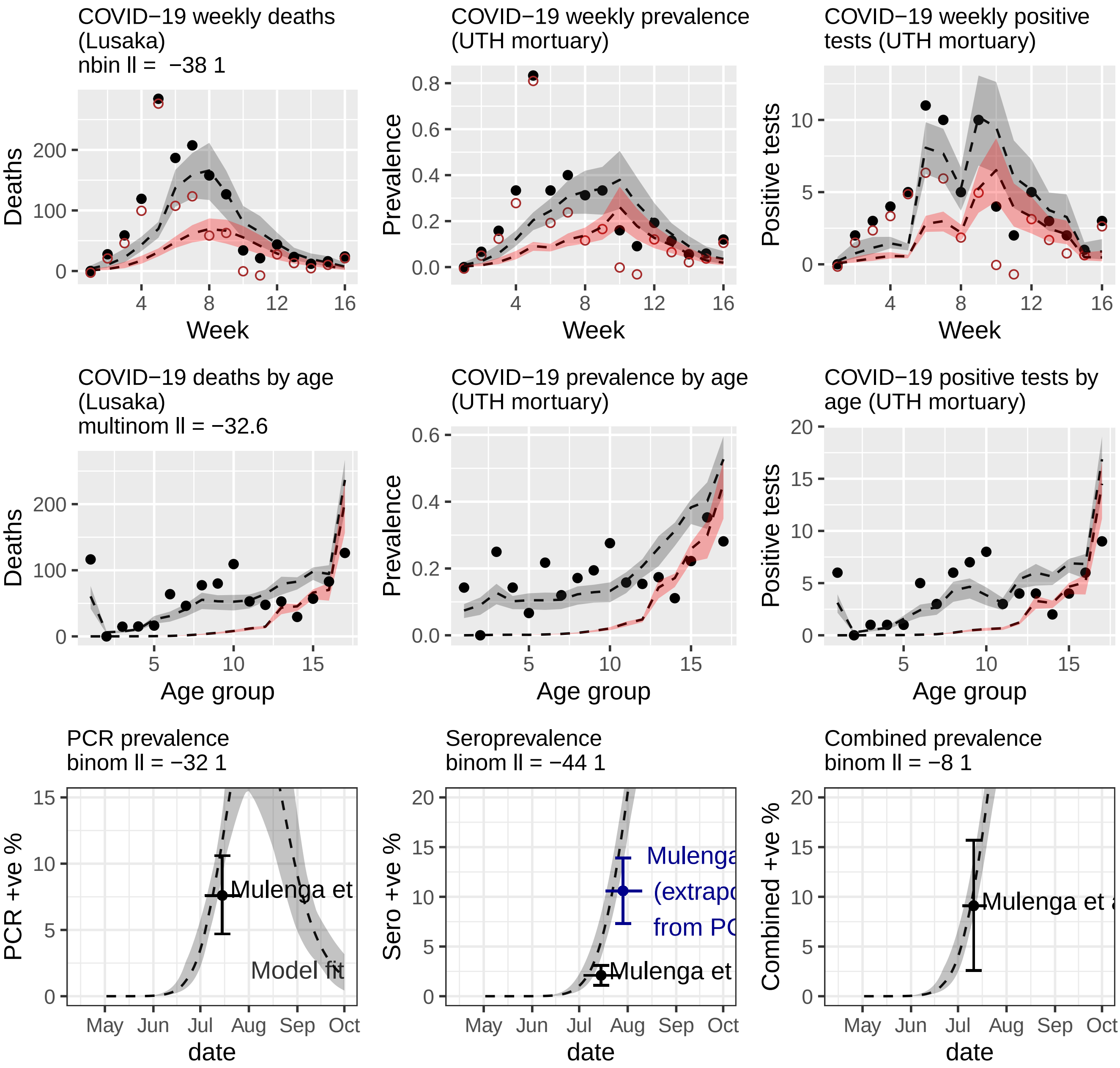
IFR x 1.2, Slope x 1.6



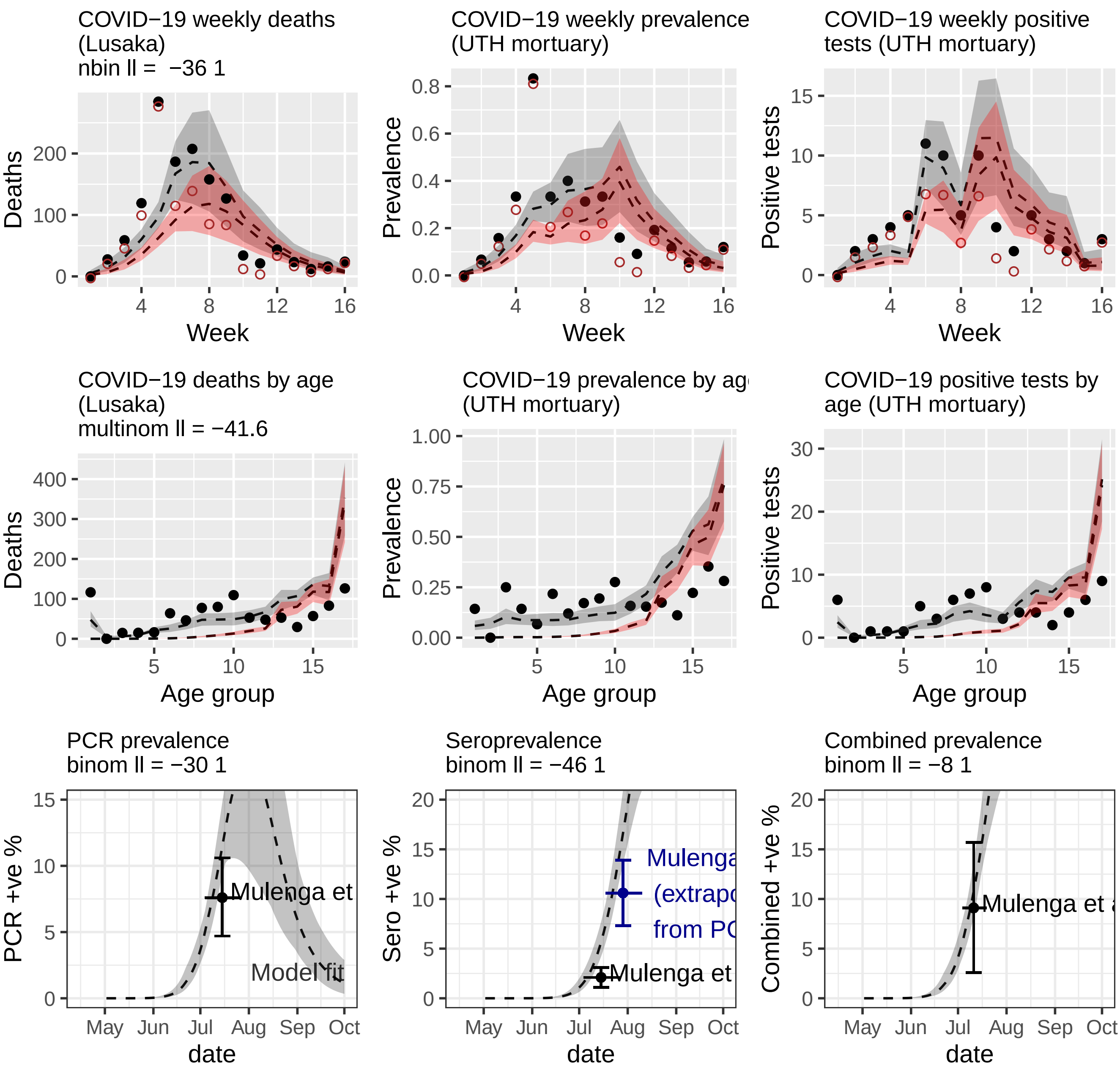
IFR x 1.4, Slope x 1.6



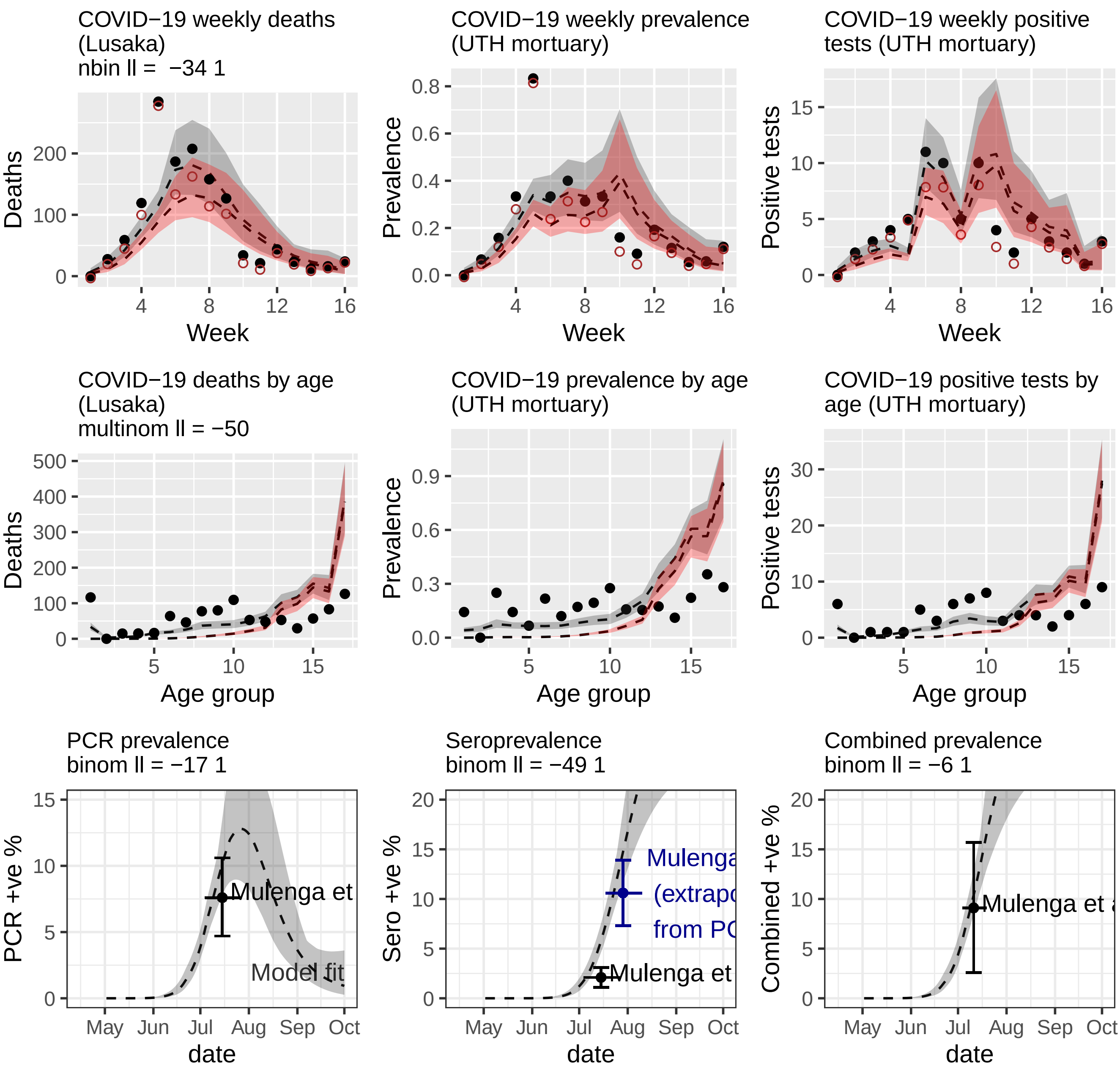
IFR x 0.2, Slope x 1.8



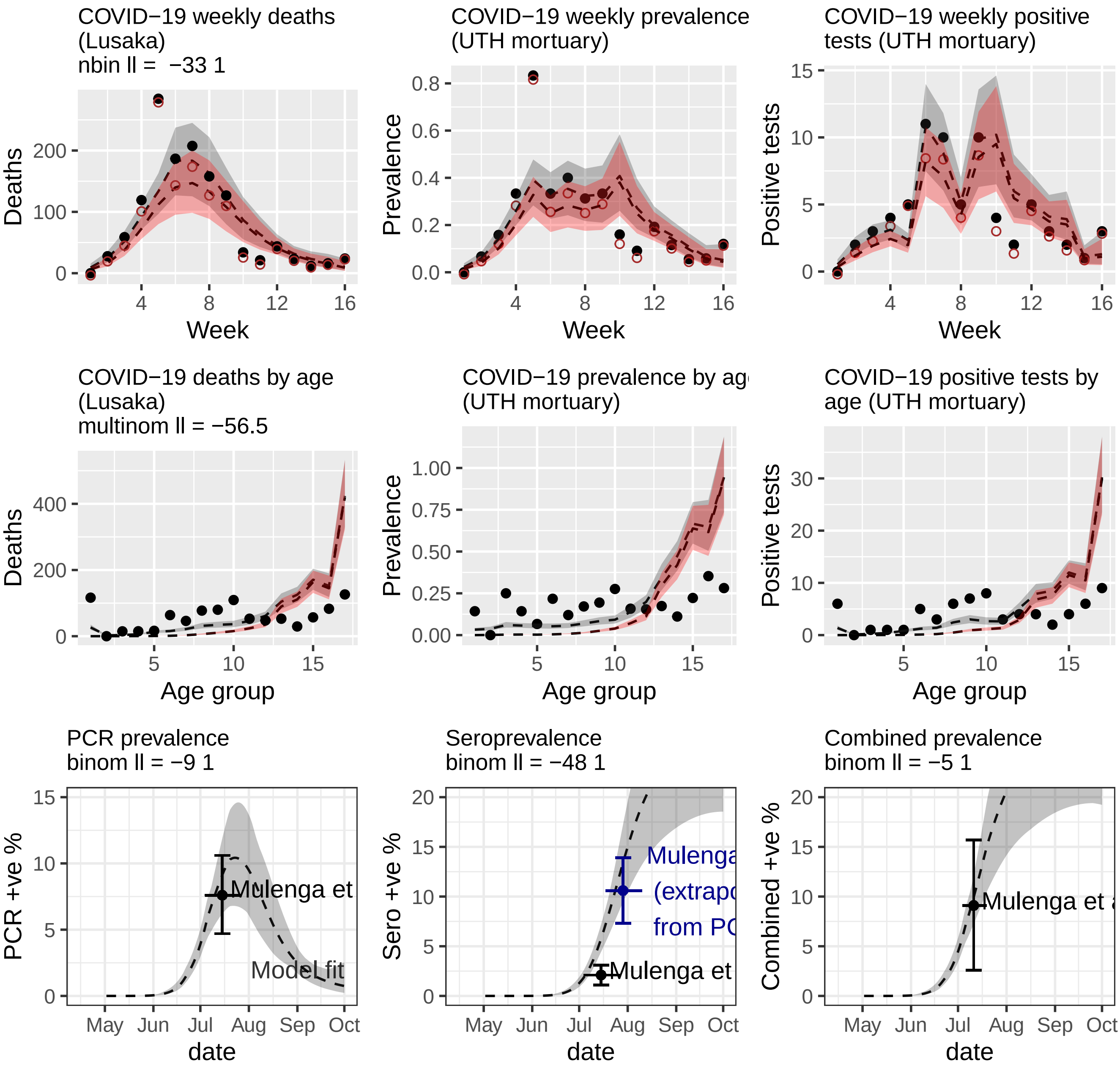
IFR x 0.4, Slope x 1.8



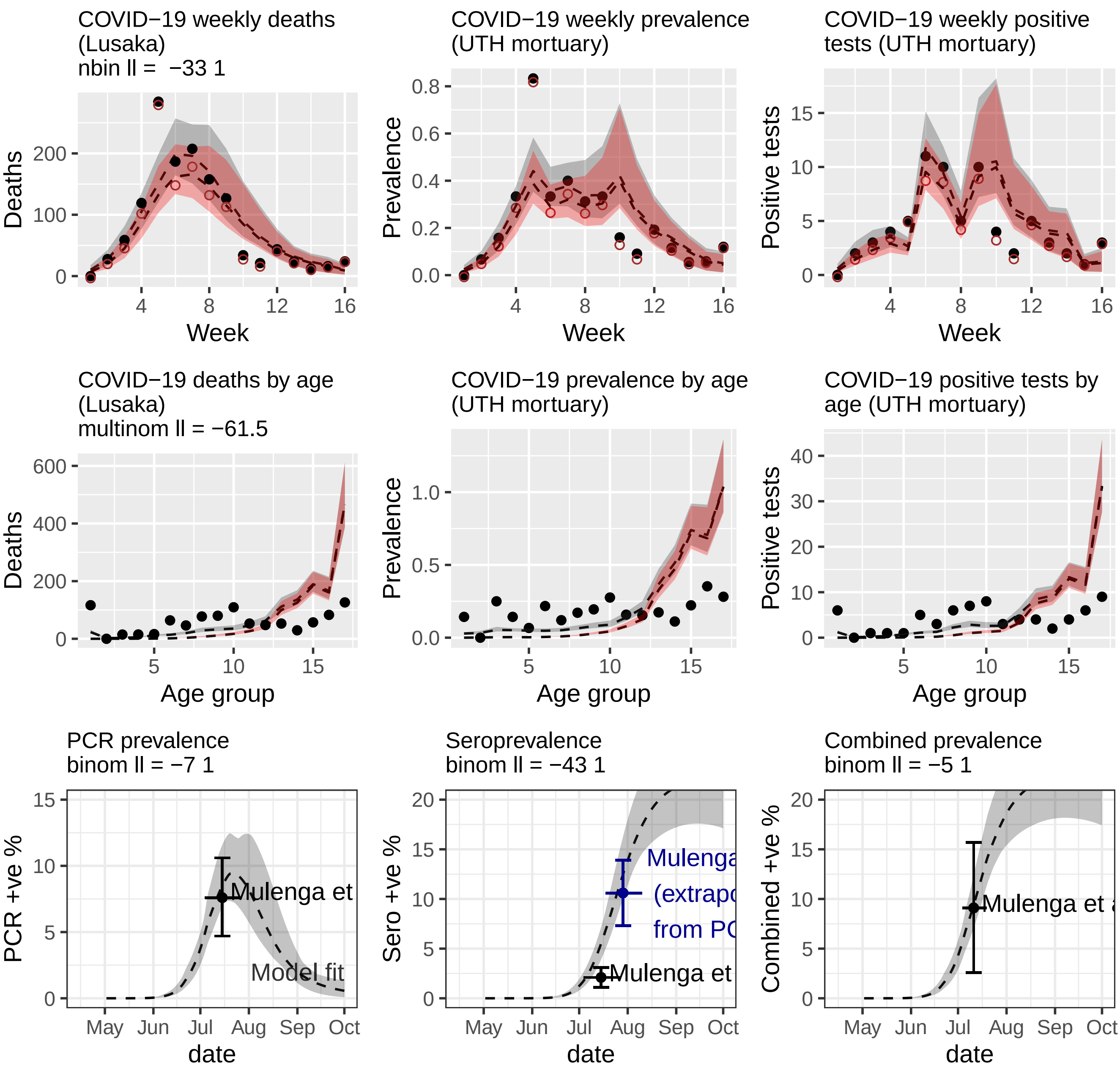
IFR x 0.6, Slope x 1.8

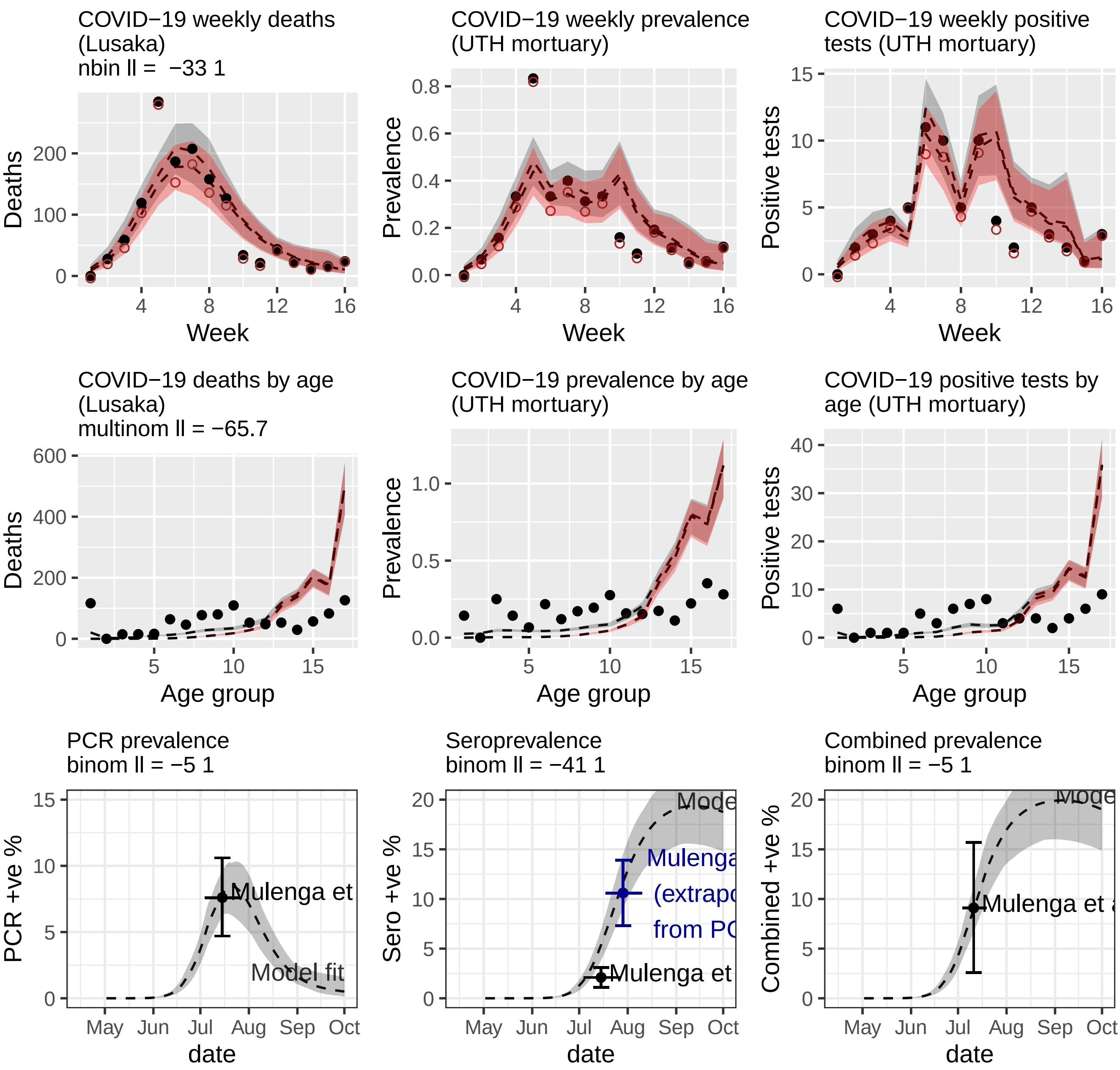


IFR x 0.8, Slope x 1.8



IFR x 1, Slope x 1.8



IFR x 1.2, Slope x 1.8