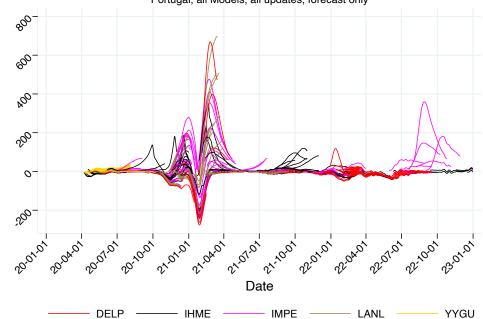




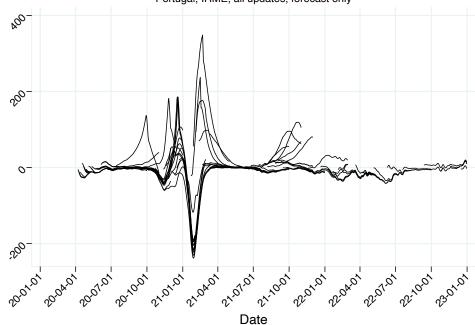
Daily deaths error measure



C19 daily deaths error Portugal, DELP, all updates, forecast only 600-Daily deaths error measure MO-200-0-300potal pokal potal priori protal prokal protal priori protal potal potal protal protal Date

C19 daily deaths error
Portugal, IHME, all updates, forecast only

Daily deaths error measure



C19 daily deaths error Portugal, IMPE, all updates, forecast only 600-Daily deaths error measure MO. 200-0-200potal pokal potal priori prota pokal prata priori potal potal potal potal prota Date

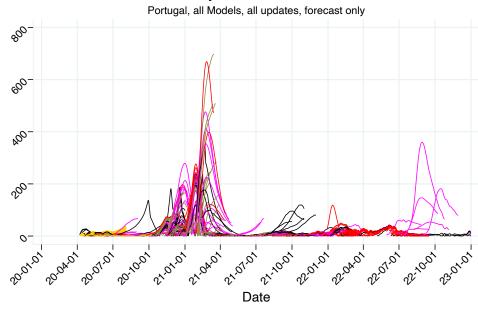
## C19 daily deaths error Portugal, LANL, all updates, forecast only 800-600-Daily deaths error measure MO. 200-0-2001 and 2001 and 200 Date

C19 daily deaths error Portugal, YYGU, all updates, forecast only ~0-Daily deaths error measure 0-70-30. 30para paka pala praa raia raka raia riaa pala paka pala paka pala Date

# Daily deaths error measure

**DELP** 

### C19 daily deaths absolute error

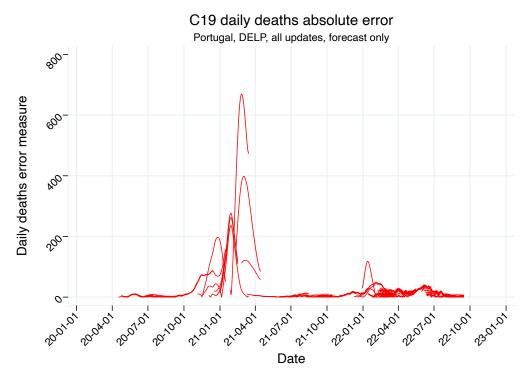


**IMPE** 

LANL

YYGU

IHME



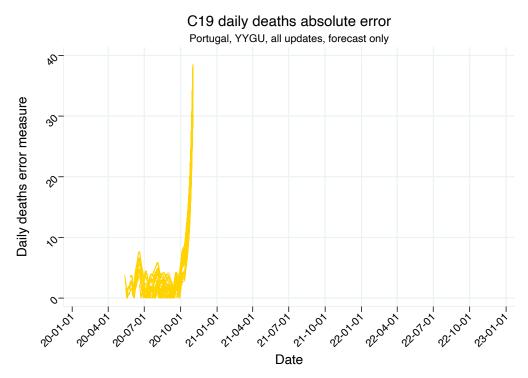
# Portugal, IHME, all updates, forecast only ,00<sup>-</sup> Daily deaths error measure 30°-200-*~00*-

Date

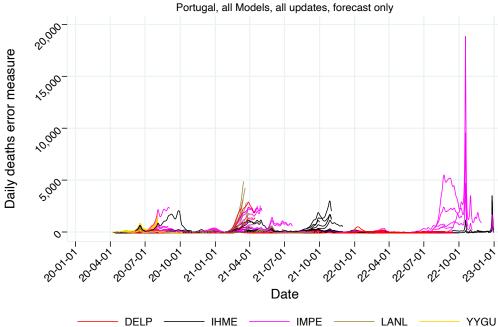
C19 daily deaths absolute error

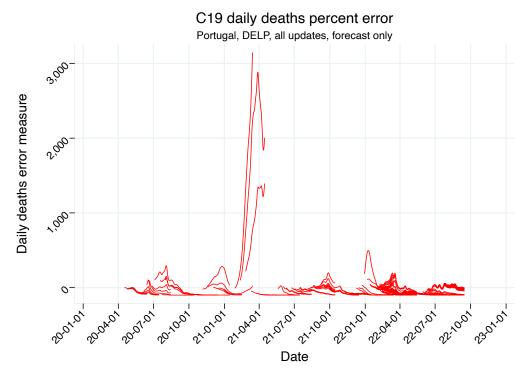
## C19 daily deaths absolute error Portugal, IMPE, all updates, forecast only 400-Daily deaths error measure 200 <sub>3</sub>00-200-00, paia paka pala praa paia paka pala praa pala paka pala pala pala Date

# C19 daily deaths absolute error Portugal, LANL, all updates, forecast only 800-Daily deaths error measure ею\_ MO-200point pokot polot priori protet prote Date



### C19 daily deaths percent error



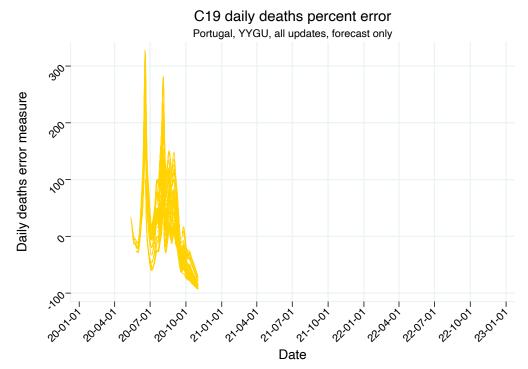


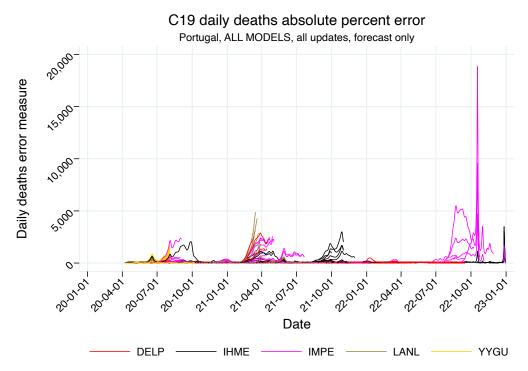
# C19 daily deaths percent error Portugal, IHME, all updates, forecast only \*'000\_ Daily deaths error measure 3000-500-100-0point pour point prot varo varo varo varo point para varo

Date

## C19 daily deaths percent error Portugal, IMPE, all updates, forecast only 50000-Daily deaths error measure 15,000-10000-2000-0rookal palal prival raial rakal raial ripol ratal rakal raial ripol Date

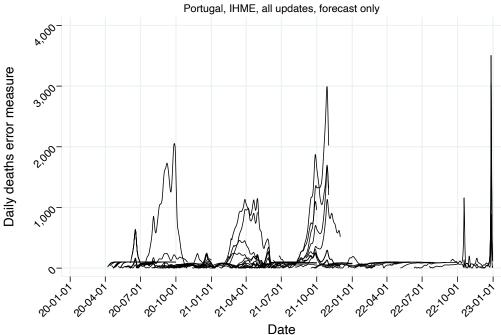
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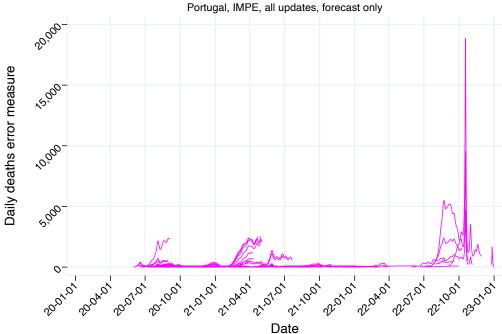


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### C19 daily deaths absolute percent error



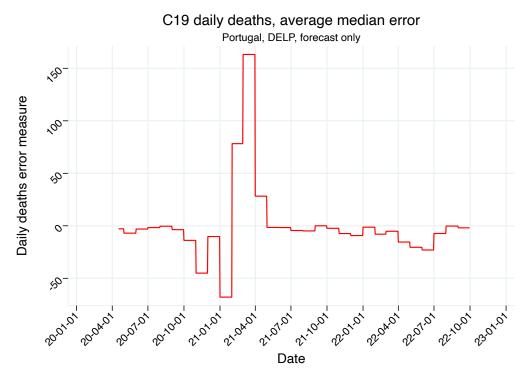
### C19 daily deaths absolute percent error



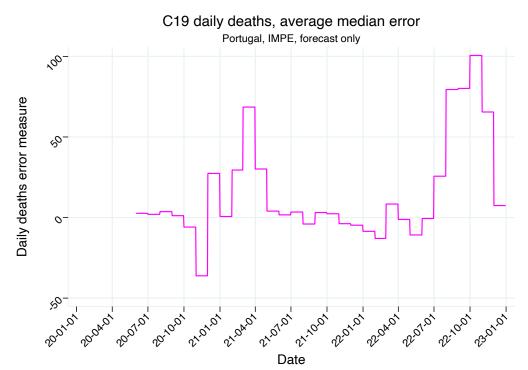
# C19 daily deaths absolute percent error Portugal, LANL, all updates, forecast only 2000-Y000\_ Daily deaths error measure 2000-100-0point pour point prot valot valot visot stata stata stata

Date

C19 daily deaths absolute percent error Portugal, YYGU, all updates, forecast only MO-Daily deaths error measure <sub>3</sub>00-,00° potal pakal palal proal ratal rakal ralal ritaal potal potal palal proal potal Date



C19 daily deaths, average median error Portugal, IHME, forecast only <sub>О</sub>-Daily deaths error measure ₽°-0-30pain paka pala prica pain paka pala prica paka pala paka pala prica pala Date

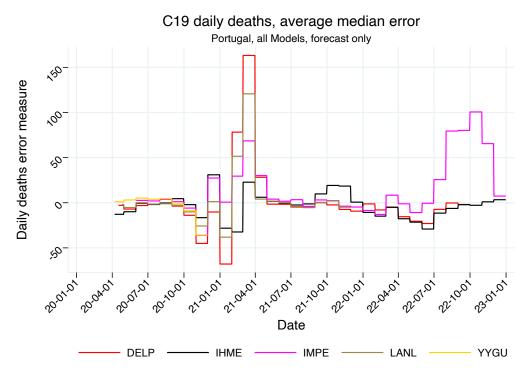


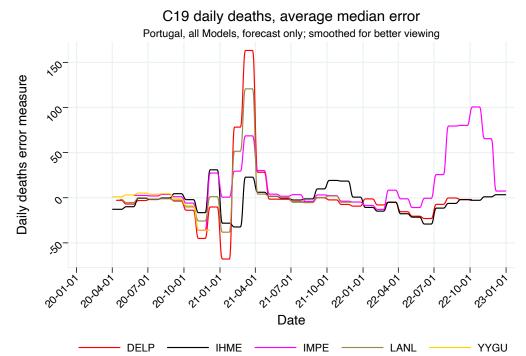
C19 daily deaths, average median error Portugal, LANL, forecast only 160-Daily deaths error measure ,00<sup>-</sup> SO-0gara' gawa' gala' ga'aa' gawa' gala' ga'a' ga'a' ga'a' ga'a' ga'a' ga'a'

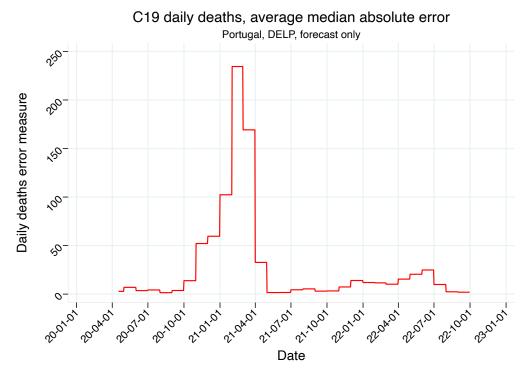
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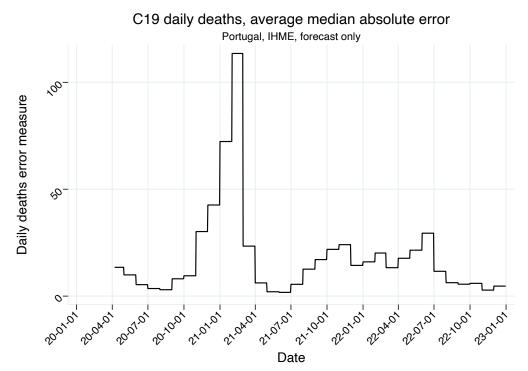
C19 daily deaths, average median error Portugal, YYGU, forecast only ~0-Daily deaths error measure 0-70-30. 30para paka pala praa raia raka raia riaa pala paka pala paka pala

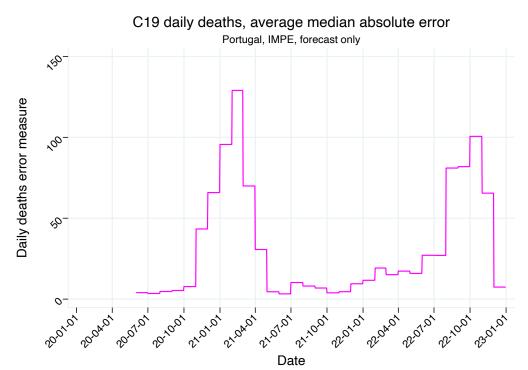
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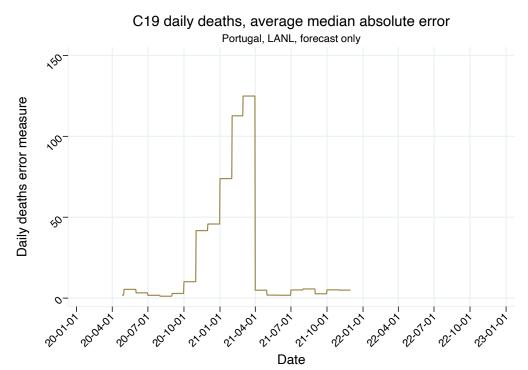




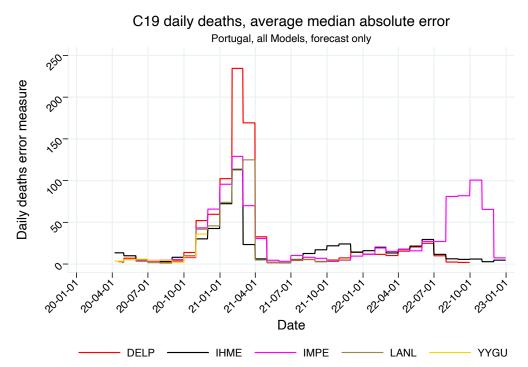


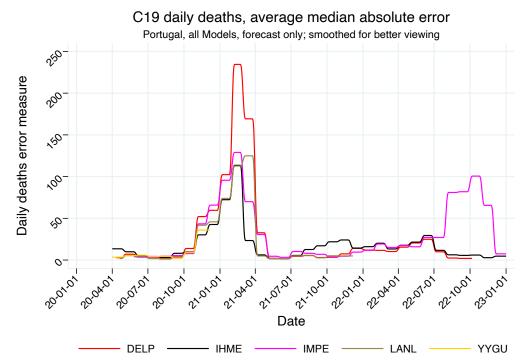


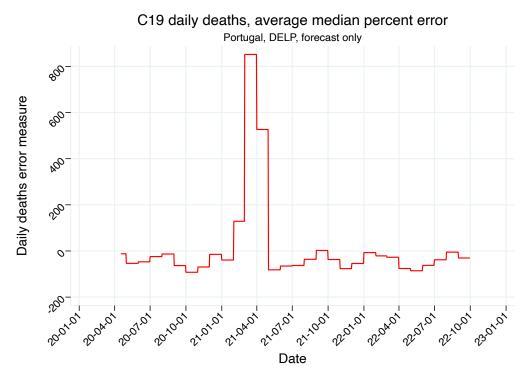


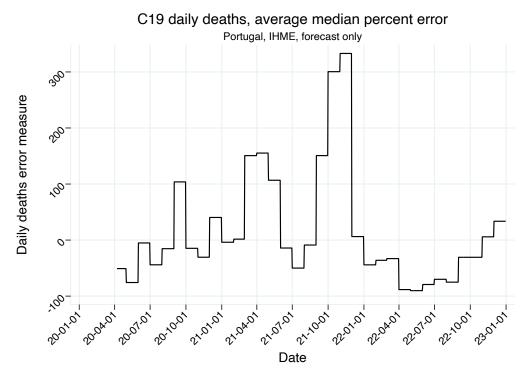


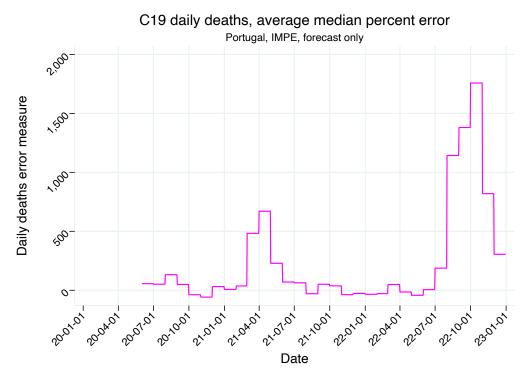
C19 daily deaths, average median absolute error Portugal, YYGU, forecast only <sub>Q</sub> Daily deaths error measure go P *-0*, potal pokal polal propal riotal riokal riotal riota

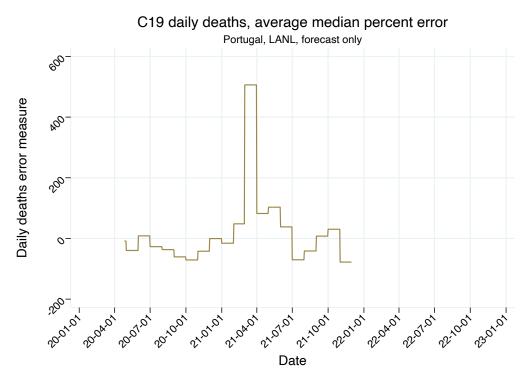




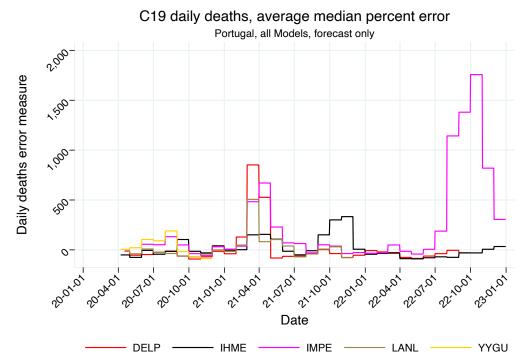


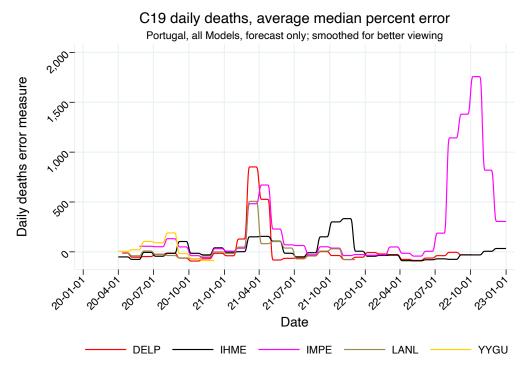






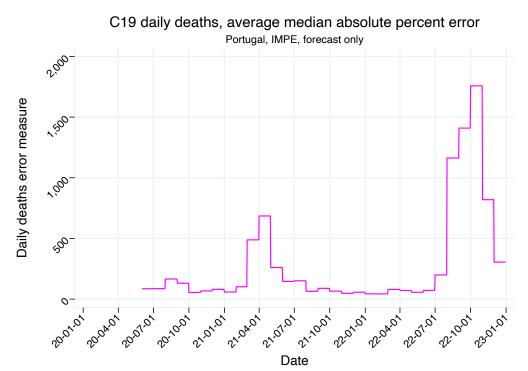
C19 daily deaths, average median percent error Portugal, YYGU, forecast only 200-Daily deaths error measure *-*00, 0-





C19 daily deaths, average median absolute percent error Portugal, DELP, forecast only 100-Daily deaths error measure <sub>90</sub>0-600-MO-200-0potal pokal potal praal rakal rakal ratal ritool pakal rakal ritool pakal

C19 daily deaths, average median absolute percent error Portugal, IHME, forecast only MO-Daily deaths error measure 300-200-,00<sup>-</sup> potot pokot potot proof potot pokot potot potot potot potot potot potot



C19 daily deaths, average median absolute percent error Portugal, LANL, forecast only 600-Daily deaths error measure MO-200para paka pala praa rata rata rata riaa pata pata pata pata

C19 daily deaths, average median absolute percent error Portugal, YYGU, forecast only 200-Daily deaths error measure 180-,00<sup>-</sup> едpara paka pala praa rata rata rata riaa pata pata pata pata

C19 daily deaths, average median absolute percent error Portugal, all Models, forecast only 5000-Daily deaths error measure 1,500-100-600-0-Date

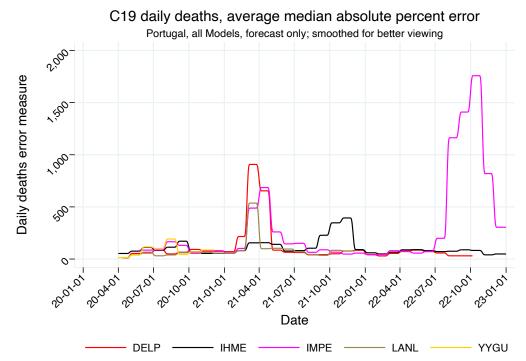
IHME

**IMPE** 

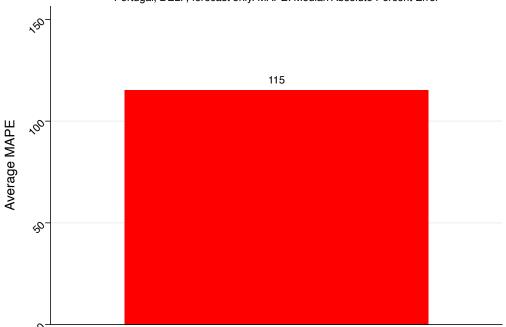
LANL

YYGU

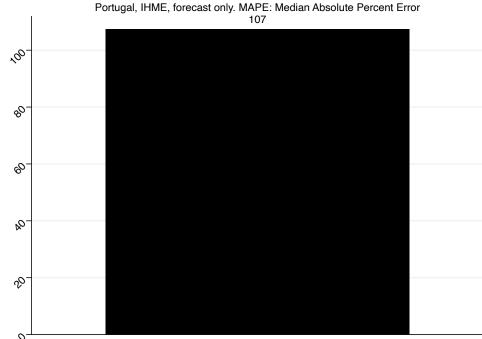
**DELP** 



C19 daily deaths average MAPE over updates and calendar months
Portugal, DELP, forecast only. MAPE: Median Absolute Percent Error



C19 daily deaths average MAPE over updates and calendar months

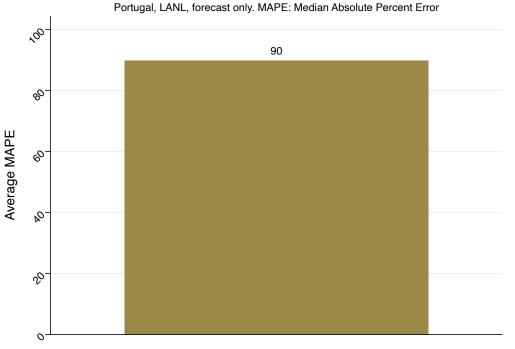


Average MAPE

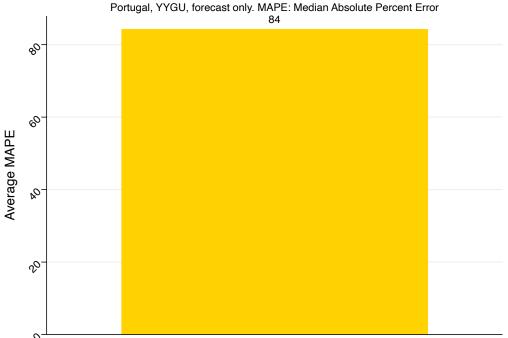
C19 daily deaths average MAPE over updates and calendar months

Portugal, IMPE, forecast only. MAPE: Median Absolute Percent Error 300-288 200-Average MAPE 0

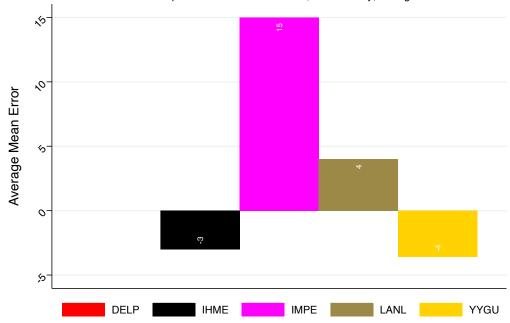
C19 daily deaths average MAPE over updates and calendar months



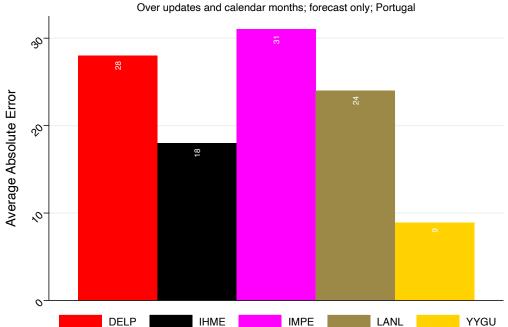
C19 daily deaths average MAPE over updates and calendar months



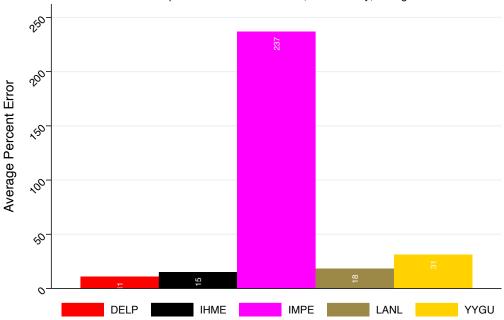
# C19 daily deaths average of Mean Error



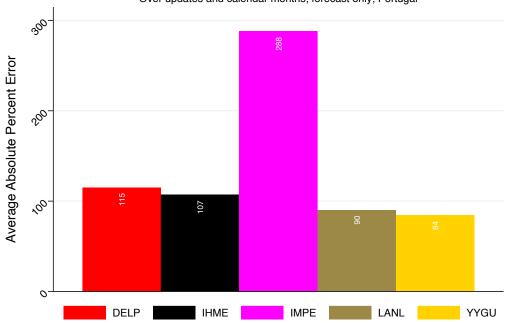
C19 daily deaths average of Absolute Error



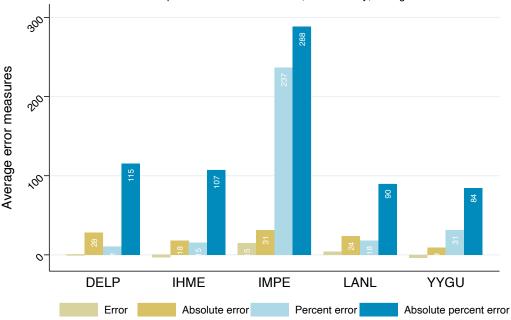
### C19 daily deaths average of Percent Error



#### C19 daily deaths average of Absolute Percent Error



## C19 daily deaths, models across average error measures



#### C19 daily deaths, average of error measures across models

