

Predicciones sobre CoViD-19

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DEPARTAMENTO DE ESTATÍSTICA,
ANÁLISE MATEMÁTICA E OPTIMIZACIÓN



- Predicciones

- Predicciones Fallecidos

3 Panorama internacional

Datos

Aplicación Shiny disponible en

<http://modestya.usc.es:3838/covid19prediction/>

Último dato Confirmados CCAA: 10/02/2021

Fuente: https://cnecovid.isciii.es/covid19/resources/casos_tecnica_ccaa.csv

Predicciones:

▶ España

► Andalucía

► Aragón

► Asturias

▶ I. Balears

▶ Canarias

▶ Cantabria

► **Cataluña**

► **Castilla-La Mancha**

► **Castilla y León**

► C. Valenciana

▶ Extremadura

▶ País Vasco

► Galicia

▶ Madrid

► Murcia

▶ Navarra

► La Rioja

► Mod Lineal

▶ Mod NP

► **Mod Aditivo**

	$10^2 \sigma_R^2$			$10^2 \sigma_R^2 (rob.)$			r^2		
Horiz	FLM	NP	SAM	FLM	NP	SAM	FLM	NP	SAM
H1	0.008	0.007	0.008	0.006	0.005	0.006	0.684	0.747	0.695
H2	0.034	0.019	0.032	0.018	0.015	0.019	0.686	0.827	0.706
H3	0.05	0.034	0.047	0.038	0.031	0	0.773	0.852	0.785
H4	0.071	0.053	0.067	0.064	0.052	0.06	0.812	0.866	0.822
H5	0.114	0.092	0.108	0.093	0.083	0.091	0.814	0.856	0.823

Último dato fichero: 10/02/2021.

Tabla Ratio Incr. Confirmados: Mod. Lineal.

Last=10/02/2021

	Last	H1	H2	H3	H4	H5
España	0.0040	0.0030	0.0060	0.0090	0.0110	0.0130
Andalucía	0.0060	0.0050	0.0100	0.0140	0.0180	0.0220
Aragón	0.0030	0.0030	0.0050	0.0080	0.0100	0.0130
Asturias	0.0050	0.0030	0.0050	0.0070	0.0090	0.0100
Canarias	0.0040	0.0040	0.0080	0.0110	0.0150	0.0180
Cantabria	0.0030	0.0020	0.0040	0.0060	0.0080	0.0100
Castilla.y.León	0.0040	0.0030	0.0060	0.0080	0.0100	0.0120
Castilla.La.Mancha	0.0030	0.0020	0.0040	0.0050	0.0060	0.0070
Cataluña	0.0030	0.0030	0.0060	0.0080	0.0110	0.0130
Ceuta	0.0060	0.0050	0.0100	0.0150	0.0190	0.0230
Comunidad.Valenciana	0.0040	0.0030	0.0060	0.0070	0.0080	0.0080
Extremadura	0.0020	0.0020	0.0030	0.0040	0.0050	0.0060
Galicia	0.0050	0.0030	0.0050	0.0070	0.0090	0.0090
Islas.Baleares	0.0020	0.0020	0.0040	0.0050	0.0060	0.0070
La.Rioja	0.0030	0.0020	0.0030	0.0040	0.0040	0.0040
Madrid	0.0040	0.0030	0.0070	0.0100	0.0130	0.0160
Melilla	0.0040	0.0030	0.0060	0.0090	0.0120	0.0150
Murcia	0.0030	0.0020	0.0030	0.0040	0.0050	0.0060
Navarra	0.0020	0.0020	0.0040	0.0060	0.0070	0.0090
País.Vasco	0.0040	0.0030	0.0060	0.0090	0.0120	0.0140

Cuadro: Previsión Ratio Incr. Confirmados: Mod. lineal - Horizonte 1 – 5 días.

Tabla Ratio Incr. Confirmados: Mod. No Paramétrico.

Last=10/02/2021

	Last	H1	H2	H3	H4	H5
España	0.004	0.006	0.011	0.016	0.022	0.027
Andalucía	0.006	0.007	0.014	0.021	0.028	0.035
Aragón	0.003	0.005	0.009	0.013	0.018	0.022
Asturias	0.005	0.007	0.014	0.021	0.027	0.034
Canarias	0.004	0.005	0.010	0.015	0.020	0.026
Cantabria	0.003	0.004	0.009	0.013	0.017	0.021
Castilla.y.León	0.004	0.006	0.011	0.017	0.023	0.028
Castilla.La.Mancha	0.003	0.005	0.010	0.015	0.020	0.024
Cataluña	0.003	0.004	0.008	0.012	0.016	0.020
Ceuta	0.006	0.006	0.013	0.019	0.025	0.032
Comunidad.Valenciana	0.004	0.006	0.012	0.018	0.024	0.029
Extremadura	0.002	0.005	0.009	0.013	0.018	0.022
Galicia	0.005	0.006	0.013	0.019	0.026	0.032
Islas.Baleares	0.002	0.004	0.008	0.012	0.016	0.020
La.Rioja	0.003	0.005	0.010	0.014	0.019	0.023
Madrid	0.004	0.005	0.011	0.016	0.021	0.026
Melilla	0.004	0.006	0.012	0.017	0.023	0.028
Murcia	0.003	0.005	0.009	0.013	0.018	0.022
Navarra	0.002	0.004	0.007	0.011	0.014	0.018
País.Vasco	0.004	0.005	0.010	0.014	0.019	0.024

Cuadro: Previsión Ratio Incr. Confirmados: Mod. No Paramétrico - Horizonte 1
– 5 días.

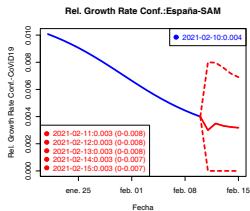
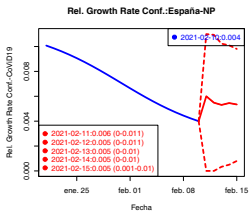
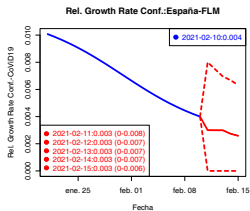
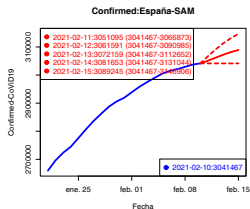
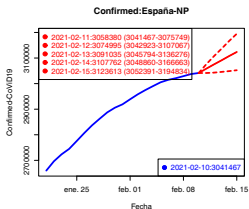
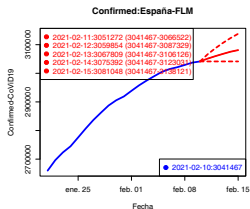
Tabla Ratio Incr. Confirmados: Mod. Aditivo.

Last=10/02/2021

	Last	H1	H2	H3	H4	H5
España	0.004	0.003	0.007	0.010	0.013	0.016
Andalucía	0.006	0.005	0.011	0.016	0.022	0.026
Aragón	0.003	0.002	0.006	0.008	0.010	0.013
Asturias	0.005	0.003	0.008	0.011	0.014	0.016
Canarias	0.004	0.004	0.007	0.011	0.014	0.018
Cantabria	0.003	0.002	0.004	0.006	0.008	0.010
Castilla y León	0.004	0.003	0.006	0.010	0.013	0.016
Castilla-La Mancha	0.003	0.002	0.005	0.008	0.010	0.011
Cataluña	0.003	0.002	0.005	0.008	0.010	0.012
Ceuta	0.006	0.005	0.012	0.016	0.020	0.024
Comunidad Valenciana	0.004	0.004	0.007	0.012	0.014	0.017
Extremadura	0.002	0.002	0.003	0.005	0.008	0.009
Galicia	0.005	0.004	0.008	0.012	0.014	0.016
Islas Baleares	0.002	0.002	0.004	0.006	0.007	0.008
La Rioja	0.003	0.002	0.004	0.006	0.008	0.010
Madrid	0.004	0.003	0.007	0.010	0.013	0.016
Melilla	0.004	0.003	0.007	0.010	0.013	0.016
Murcia	0.003	0.002	0.003	0.006	0.008	0.009
Navarra	0.002	0.001	0.004	0.006	0.007	0.008
País Vasco	0.004	0.003	0.007	0.010	0.013	0.015

Cuadro: Previsión Ratio Incr. Confirmados: Mod. Aditivo - Horizonte 1 – 5 días.

Confirmados: España

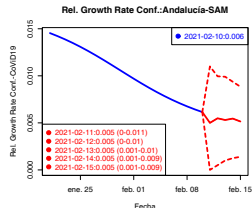
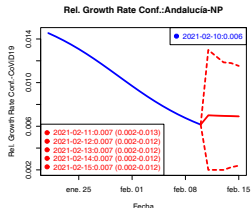
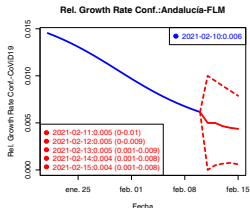
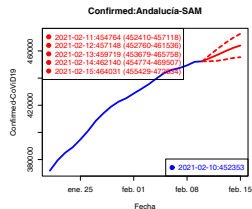
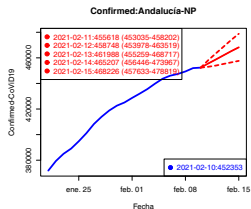
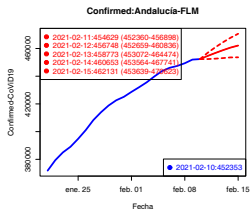


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Andalucía

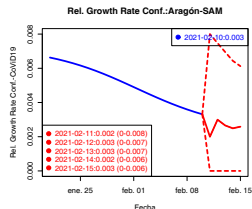
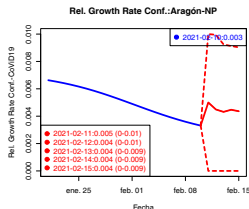
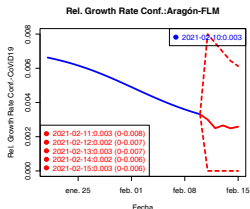
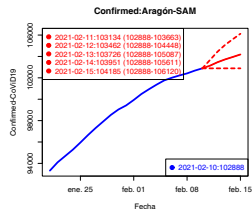
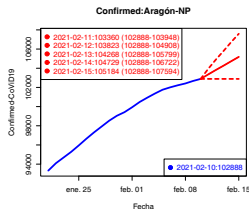
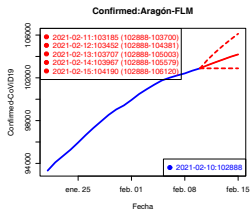


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Aragón

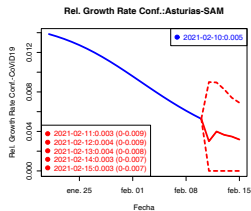
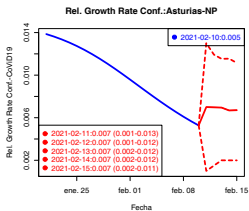
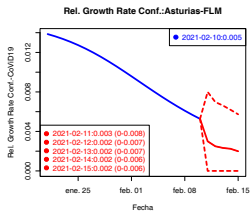
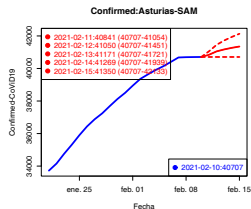
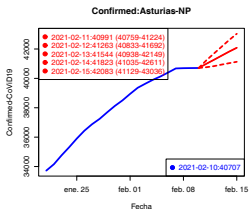
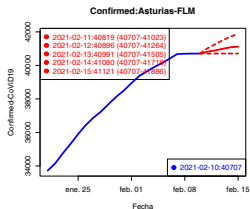


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Asturias

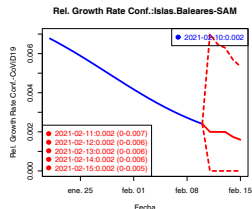
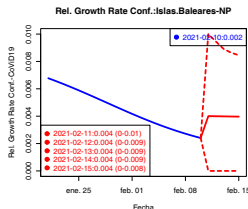
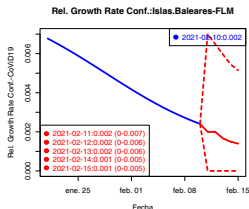
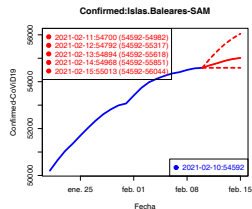
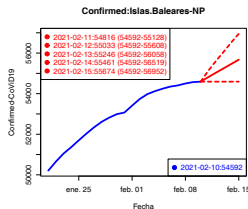
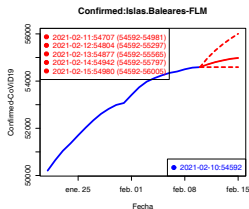


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Islas Baleares

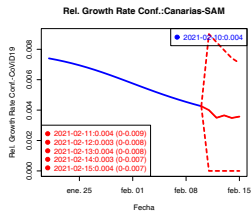
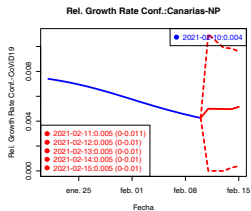
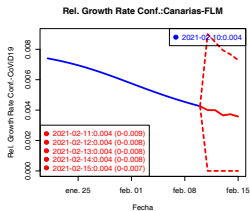
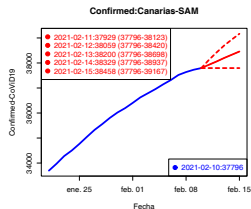
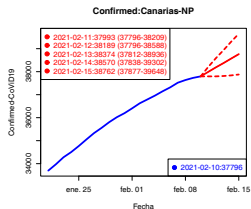
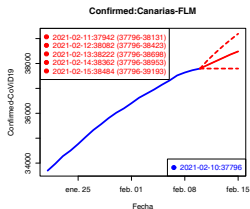


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Canarias



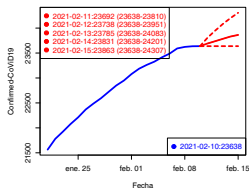
Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

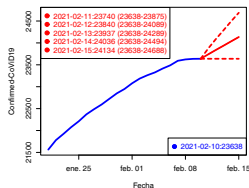
◀ Fallecidos

Confirmados: Cantabria

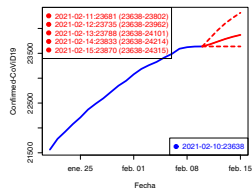
Confirmed:Cantabria-FLM



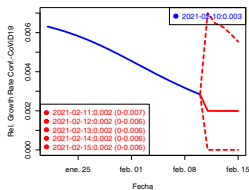
Confirmed:Cantabria-NP



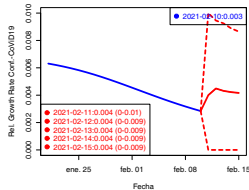
Confirmed:Cantabria-SAM



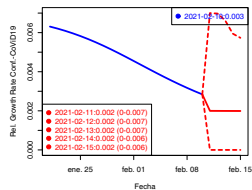
Rel. Growth Rate Conf.:Cantabria-FLM



Rel. Growth Rate Conf.:Cantabria-NP



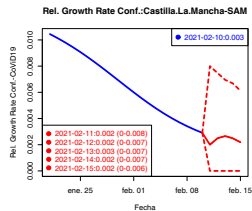
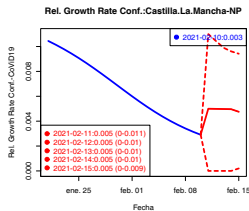
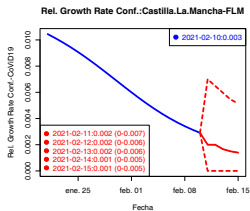
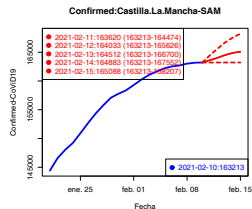
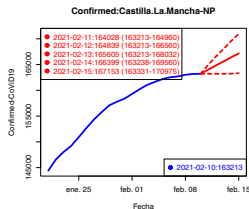
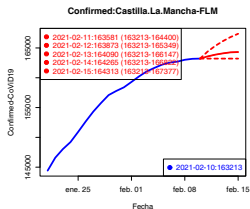
Rel. Growth Rate Conf.:Cantabria-SAM



Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

[← Confirmados](#)
[← Fallecidos](#)

Confirmados: Castilla-La Mancha

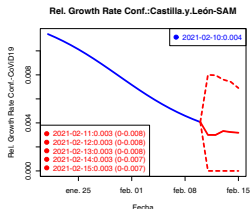
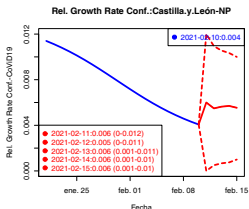
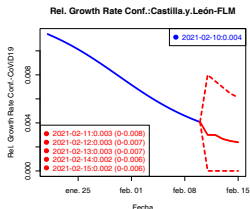
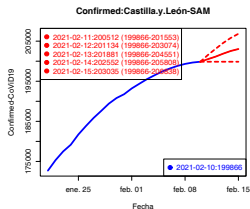
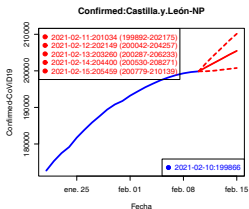
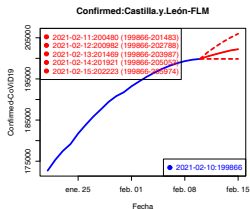


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Castilla y León

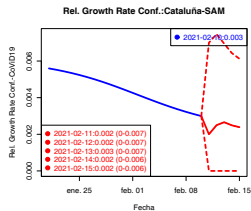
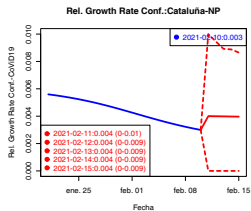
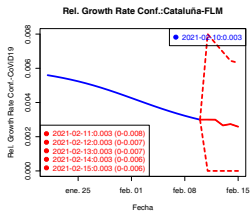
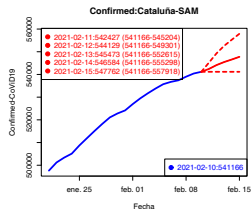
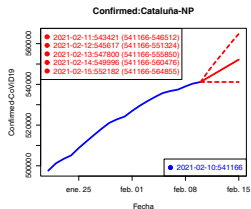
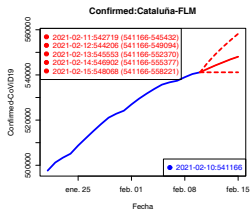


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Cataluña



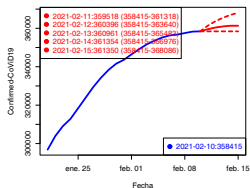
Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

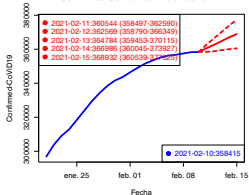
◀ Fallecidos

Confirmados: C. Valenciana

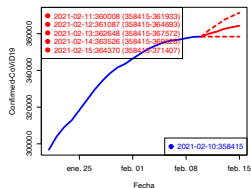
Confirmed:Comunidad.Valenciana-FLM



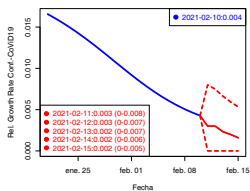
Confirmed:Comunidad.Valenciana-NP



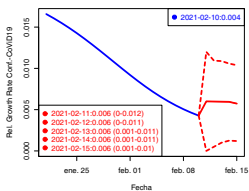
Confirmed:Comunidad.Valenciana-SAM



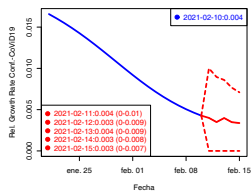
Rel. Growth Rate Conf.:Comunidad.Valenciana-FLM



Rel. Growth Rate Conf.:Comunidad.Valenciana-NP



Rel. Growth Rate Conf.:Comunidad.Valenciana-SAM

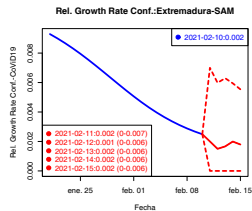
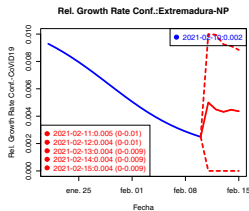
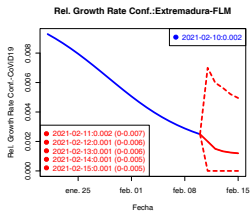
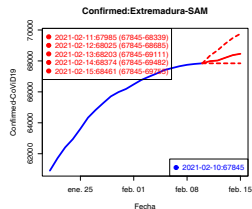
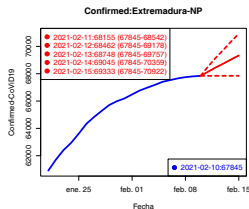
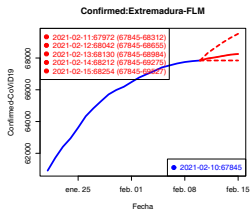


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

← Confirmados

← Fallecidos

Confirmados: Extremadura



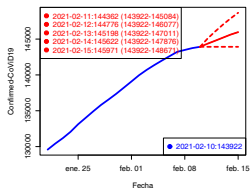
Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

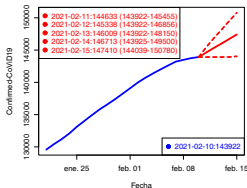
◀ Fallecidos

Confirmados: País Vasco

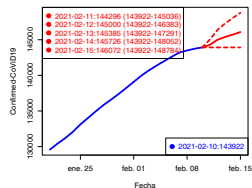
Confirmed:País.Vasco-FLM



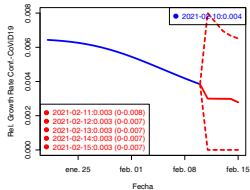
Confirmed:País.Vasco-NP



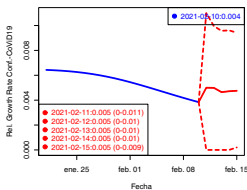
Confirmed:País.Vasco-SAM



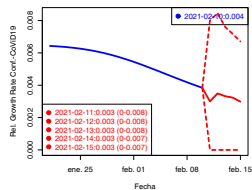
Rel. Growth Rate Conf.:País.Vasco-FLM



Rel. Growth Rate Conf.:País.Vasco-NP



Rel. Growth Rate Conf.:País.Vasco-SAM

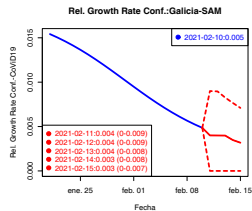
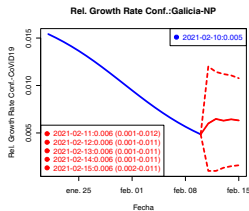
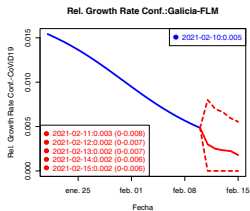
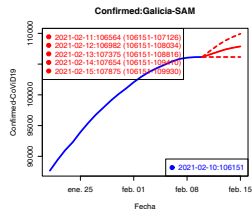
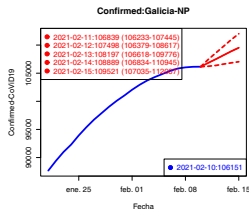
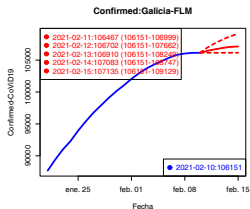


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Galicia

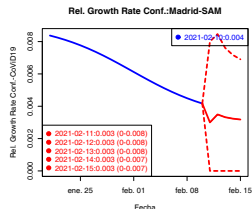
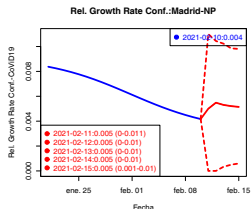
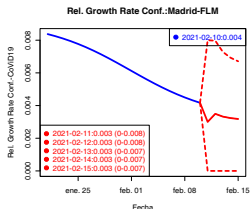
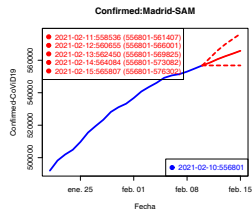
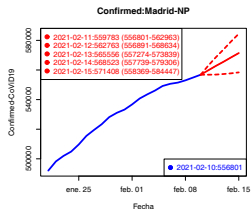
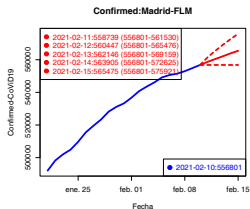


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Madrid

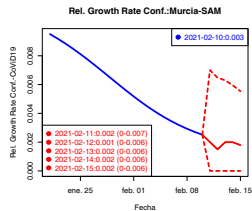
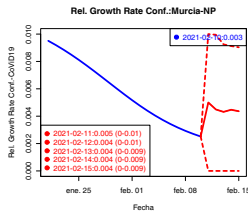
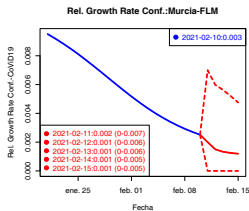
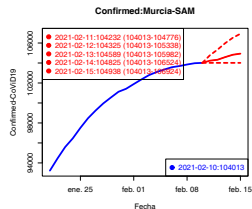
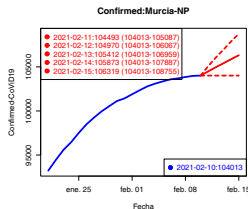
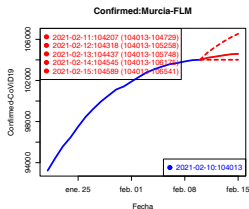


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Murcia



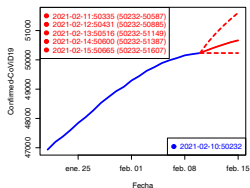
Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

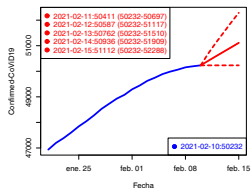
◀ Fallecidos

Confirmados: Navarra

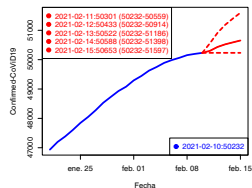
Confirmed:Navarra-FLM



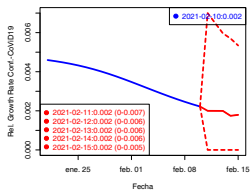
Confirmed:Navarra-NP



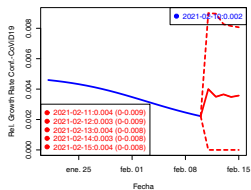
Confirmed:Navarra-SAM



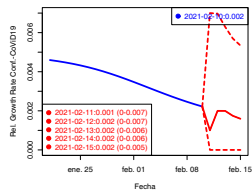
Rel. Growth Rate Conf.:Navarra-FLM



Rel. Growth Rate Conf.:Navarra-NP



Rel. Growth Rate Conf.:Navarra-SAM

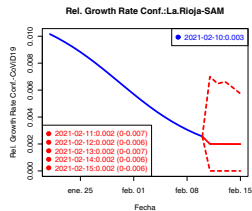
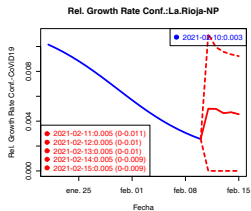
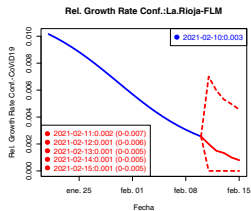
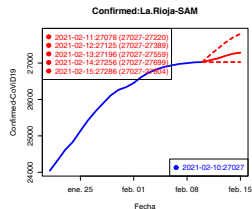
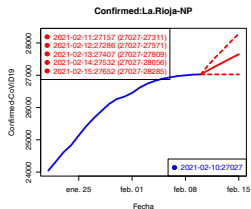
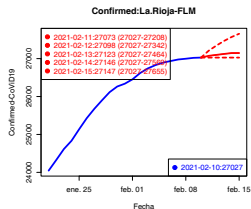


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: La Rioja



Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

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 - Predicciones
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- 3 Panorama internacional

Modelos para fallecidos por CoViD-19

Último dato: 10/02/2021 Fuente: https://cnecovid.isciii.es/covid19/resources/casos_hosp_uci_def_sexo_edad_provres.csv

Predicciones:

▶ España

▶ Andalucía

▶ Aragón

▶ Asturias

▶ I. Baleares

▶ Canarias

▶ Cantabria

▶ Castilla-La Mancha

▶ Castilla y León

▶ Cataluña

▶ C. Valenciana

▶ Extremadura

▶ País Vasco

▶ Galicia

▶ Madrid

▶ Murcia

▶ Navarra

▶ La Rioja

▶ Mod Lineal

▶ Mod NP

▶ Mod Aditivo

	$10^2 \sigma_R^2$			$10^2 \sigma_R^2(rob.)$			r^2		
Horiz	FLM	NP	SAM	FLM	NP	SAM	FLM	NP	SAM
H1	0.003	0.004	0.003	0.002	0.002	0.002	0.657	0.631	0.676
H2	0.011	0.012	0.01	0.006	0.007	0.005	0.708	0.674	0.723
H3	0.03	0.033	0.03	0.01	0.014	0.009	0.668	0.638	0.677
H4	0.034	0.04	0.033	0.015	0.022	0.012	0.763	0.725	0.77
H5	0.045	0.054	0.043	0.02	0.031	0.017	0.798	0.757	0.804

Tabla Previsión Fallecidos: Mod. Lineal.

Last=10/02/2021

	Last	H1	H2	H3	H4	H5
España	63840	64083	64304	64569	64758	64917
Andalucía	7204	7243	7278	7316	7347	7372
Aragón	3081	3094	3107	3122	3133	3143
Asturias	1631	1639	1646	1655	1661	1667
Canarias	544	546	547	549	550	551
Cantabria	482	483	485	486	487	488
Castilla.y.León	6029	6053	6076	6105	6125	6144
Castilla.La.Mancha	5323	5346	5367	5393	5409	5422
Cataluña	9613	9629	9643	9659	9668	9675
Ceuta	75	75	75	76	76	76
Comunidad.Valenciana	5711	5753	5790	5831	5863	5889
Extremadura	1601	1610	1618	1627	1634	1641
Galicia	2016	2034	2053	2076	2094	2112
Islas.Baleares	648	650	652	655	656	657
La.Rioja	694	697	700	705	708	711
Madrid	13213	13233	13247	13268	13281	13287
Melilla	61	62	63	64	65	66
Murcia	1282	1290	1298	1306	1313	1319
Navarra	1070	1073	1075	1078	1081	1083
País.Vasco	3562	3574	3585	3596	3604	3609

Cuadro: Previsión fallecidos: Mod. lineal - Horizonte 1 – 5 días.

Tabla Previsión Fallecidos: Mod. Aditivo.

Last=10/02/2021

	Last	H1	H2	H3	H4	H5
España	63840	64031	64145	64686	64834	64864
Andalucía	7204	7236	7271	7313	7333	7369
Aragón	3081	3092	3102	3124	3135	3143
Asturias	1631	1638	1644	1658	1663	1664
Canarias	544	546	546	549	551	551
Cantabria	482	483	484	487	488	488
Castilla.y.León	6029	6047	6063	6117	6132	6136
Castilla.La.Mancha	5323	5341	5355	5403	5413	5416
Cataluña	9613	9619	9621	9652	9657	9663
Ceuta	75	75	75	76	76	76
Comunidad.Valenciana	5711	5762	5805	5858	5892	5903
Extremadura	1601	1608	1616	1626	1631	1642
Galicia	2016	2033	2054	2079	2091	2109
Islas.Baleares	648	650	651	657	658	658
La.Rioja	694	696	698	705	707	709
Madrid	13213	13213	13213	13271	13279	13264
Melilla	61	62	63	64	65	66
Murcia	1282	1292	1299	1313	1324	1327
Navarra	1070	1072	1074	1078	1081	1083
País.Vasco	3562	3571	3579	3601	3608	3608

Cuadro: Previsión fallecidos: Mod. Aditivo - Horizonte 1 – 5 días.

Tabla Ratio Incr. Fallecidos: Mod. Lineal.

Last=10/02/2021

	Last	H1	H2	H3	H4	H5
España	0.004	0.004	0.007	0.011	0.014	0.017
Andalucía	0.006	0.005	0.010	0.016	0.020	0.023
Aragón	0.004	0.004	0.008	0.013	0.017	0.020
Asturias	0.005	0.005	0.009	0.015	0.018	0.022
Canarias	0.004	0.003	0.006	0.009	0.011	0.013
Cantabria	0.003	0.003	0.005	0.008	0.011	0.012
Castilla.y.León	0.004	0.004	0.008	0.013	0.016	0.019
Castilla.La.Mancha	0.005	0.004	0.008	0.013	0.016	0.019
Cataluña	0.001	0.002	0.003	0.005	0.006	0.006
Ceuta	0.003	0.001	0.002	0.007	0.010	0.012
Comunidad.Valenciana	0.010	0.007	0.014	0.021	0.027	0.031
Extremadura	0.007	0.006	0.011	0.016	0.021	0.025
Galicia	0.011	0.009	0.018	0.030	0.038	0.047
Islas.Baleares	0.004	0.003	0.006	0.010	0.012	0.013
La.Rioja	0.005	0.005	0.009	0.015	0.020	0.024
Madrid	0.002	0.002	0.003	0.004	0.005	0.006
Melilla	0.016	0.014	0.029	0.047	0.063	0.083
Murcia	0.010	0.006	0.012	0.019	0.025	0.029
Navarra	0.003	0.003	0.005	0.008	0.010	0.012
País.Vasco	0.003	0.003	0.007	0.010	0.012	0.013

Cuadro: Previsión Ratio Incr. Fallecidos: Mod. lineal - Horizonte 1 – 5 días.

Tabla Ratio Incr. Fallecidos: Mod. No Paramétrico.

Last=10/02/2021

	Last	H1	H2	H3	H4	H5
España	0.004	0.005	0.011	0.016	0.021	0.026
Andalucía	0.006	0.008	0.015	0.023	0.030	0.038
Aragón	0.004	0.004	0.009	0.014	0.018	0.023
Asturias	0.005	0.005	0.010	0.016	0.020	0.025
Canarias	0.004	0.005	0.009	0.015	0.019	0.024
Cantabria	0.003	0.004	0.008	0.013	0.017	0.021
Castilla.y.León	0.004	0.005	0.009	0.014	0.019	0.024
Castilla.La.Mancha	0.005	0.006	0.011	0.017	0.022	0.028
Cataluña	0.001	0.003	0.005	0.008	0.010	0.013
Ceuta	0.003	0.005	0.010	0.016	0.021	0.026
Comunidad.Valenciana	0.010	0.012	0.024	0.036	0.047	0.058
Extremadura	0.007	0.008	0.017	0.025	0.033	0.041
Galicia	0.011	0.010	0.020	0.031	0.041	0.051
Islas.Baleares	0.004	0.005	0.010	0.016	0.021	0.026
La.Rioja	0.005	0.005	0.010	0.016	0.021	0.026
Madrid	0.002	0.003	0.006	0.010	0.013	0.016
Melilla	0.016	0.009	0.019	0.029	0.039	0.049
Murcia	0.010	0.013	0.026	0.038	0.049	0.061
Navarra	0.003	0.003	0.007	0.010	0.014	0.017
País.Vasco	0.003	0.004	0.008	0.013	0.017	0.021

Cuadro: Previsión Ratio Incr. Fallecidos: Mod. No Paramétrico - Horizonte 1 – 5 días.

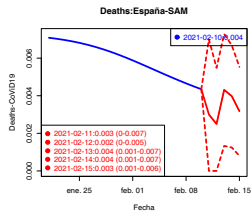
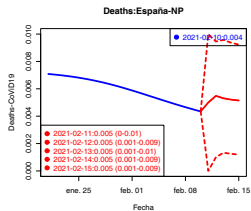
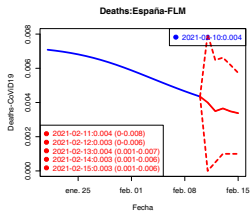
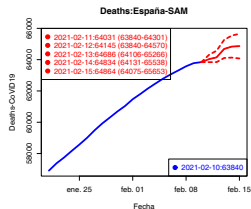
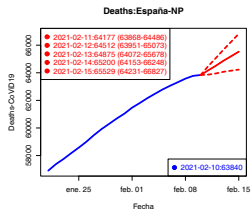
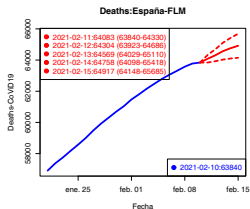
Tabla Ratio Incr. Fallecidos: Mod. Aditivo.

Last=10/02/2021

	Last	H1	H2	H3	H4	H5
España	0.004	0.003	0.005	0.013	0.016	0.016
Andalucía	0.006	0.004	0.009	0.015	0.018	0.023
Aragón	0.004	0.003	0.007	0.014	0.017	0.020
Asturias	0.005	0.004	0.008	0.017	0.019	0.020
Canarias	0.004	0.003	0.004	0.010	0.012	0.013
Cantabria	0.003	0.002	0.004	0.010	0.012	0.012
Castilla.y.León	0.004	0.003	0.006	0.015	0.017	0.018
Castilla.La.Mancha	0.005	0.003	0.006	0.015	0.017	0.017
Cataluña	0.001	0.001	0.001	0.004	0.005	0.005
Ceuta	0.003	0.003	0.004	0.013	0.014	0.017
Comunidad.Valenciana	0.010	0.009	0.017	0.026	0.032	0.034
Extremadura	0.007	0.004	0.010	0.015	0.019	0.025
Galicia	0.011	0.008	0.019	0.031	0.037	0.046
Islas.Baleares	0.004	0.003	0.005	0.013	0.015	0.015
La.Rioja	0.005	0.003	0.006	0.016	0.019	0.021
Madrid	0.002	0.000	0.000	0.004	0.005	0.004
Melilla	0.016	0.012	0.025	0.046	0.061	0.079
Murcia	0.010	0.008	0.013	0.024	0.032	0.035
Navarra	0.003	0.002	0.003	0.008	0.010	0.012
País.Vasco	0.003	0.003	0.005	0.011	0.013	0.013

Cuadro: Previsión Ratio Incr. Fallecidos: Mod. Aditivo - Horizonte 1 – 5 días.

Fallecidos: España

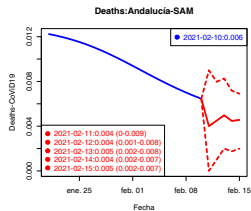
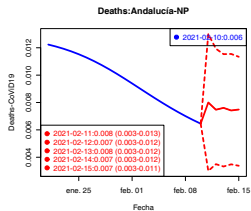
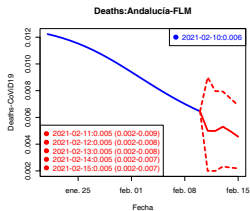
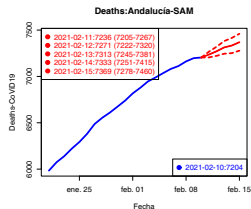
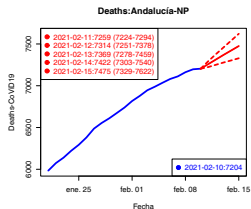
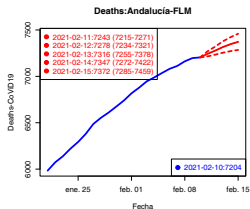


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Andalucía

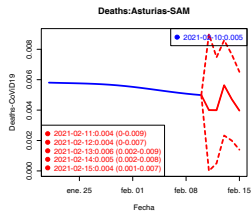
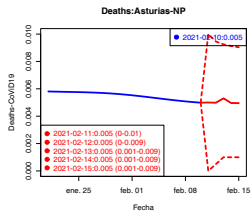
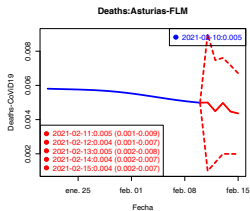
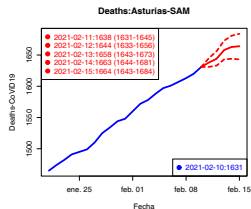
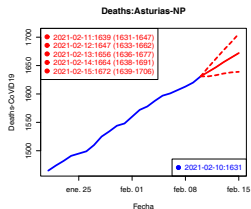
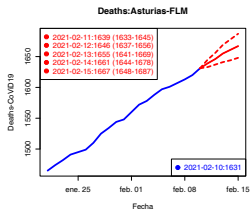


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

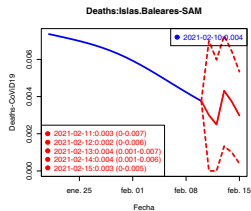
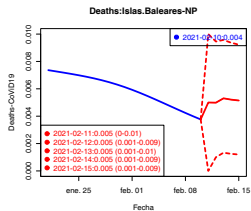
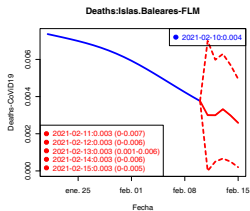
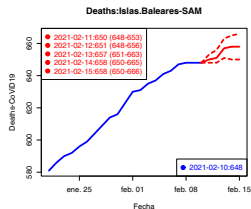
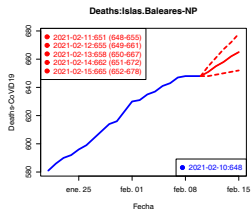
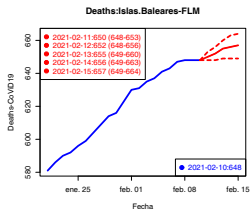
◀ Fallecidos

Fallecidos: Asturias



Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

Fallecidos: Islas Baleares

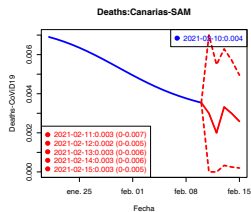
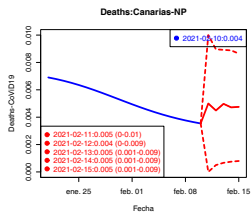
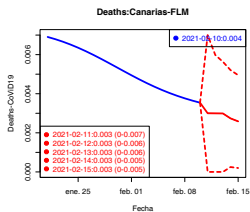
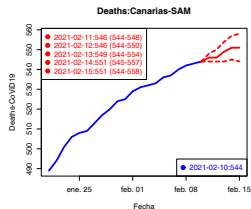
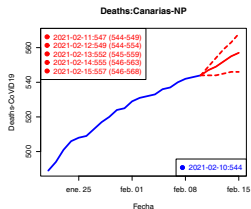
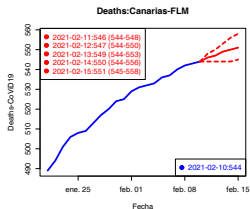


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Canarias

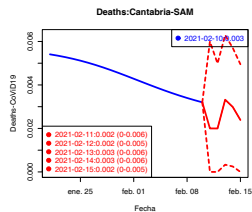
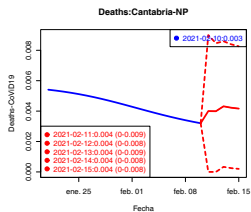
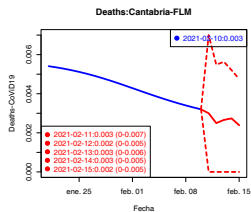
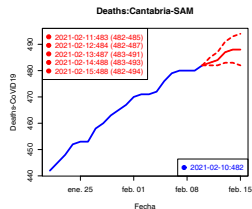
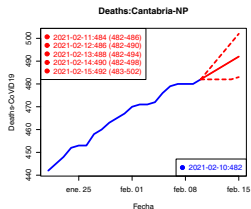
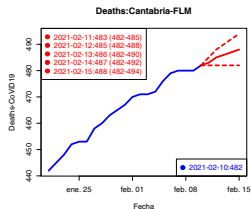


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Cantabria

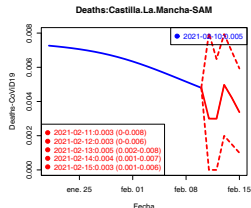
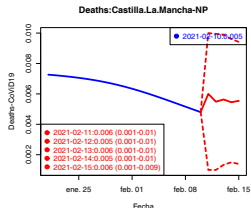
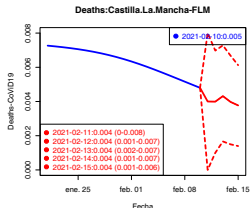
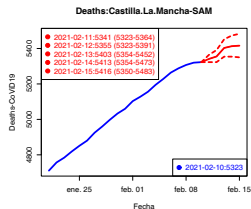
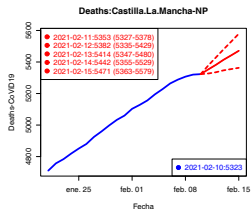
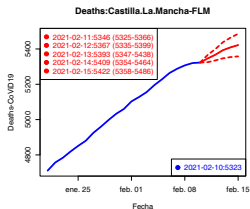


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Castilla-La Mancha

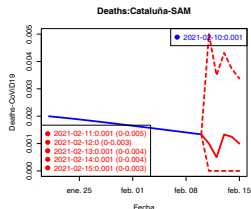
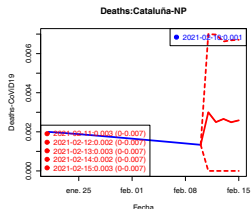
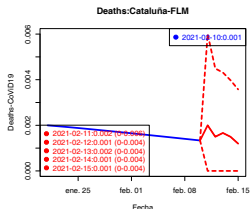
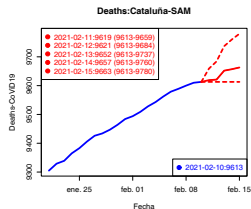
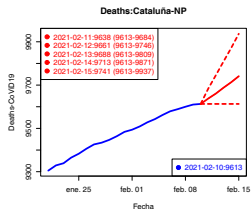
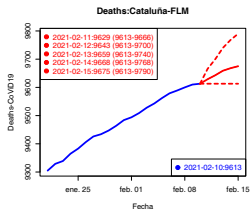


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Cataluña

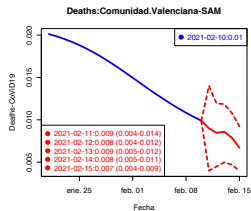
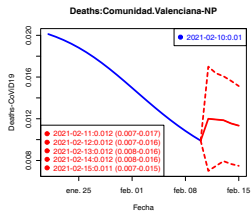
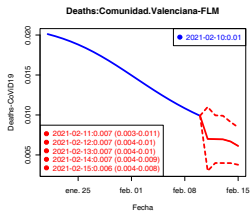
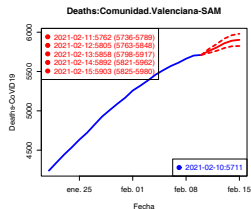
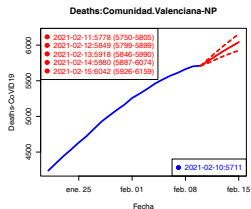
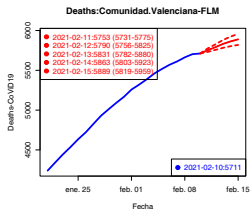


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: C. Valenciana

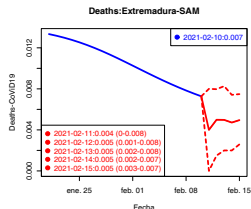
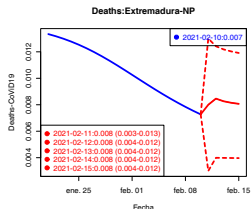
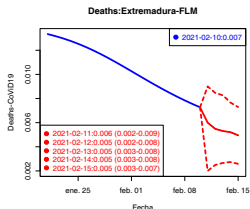
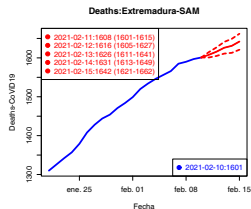
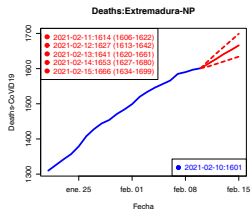
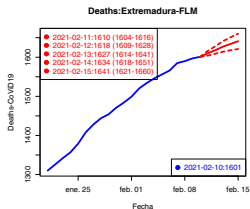


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Extremadura

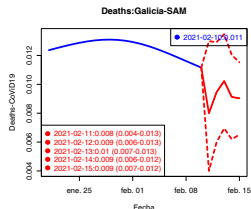
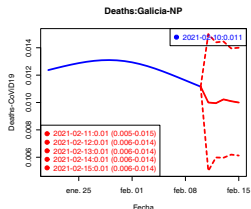
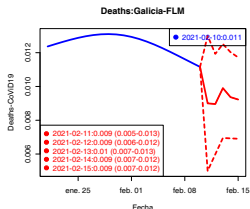
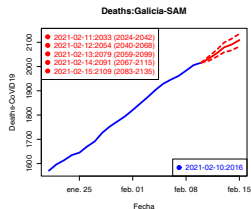
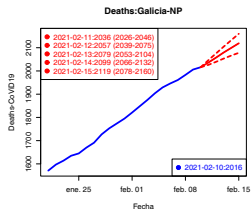
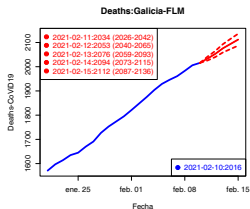


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Galicia

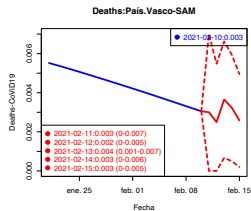
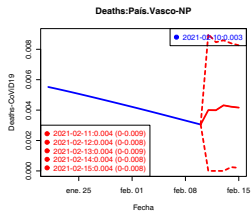
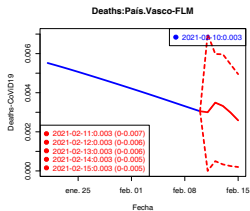
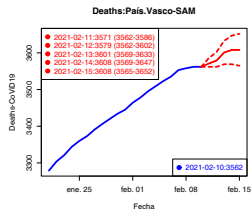
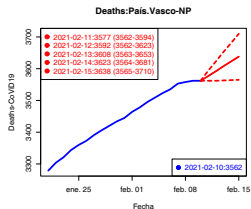
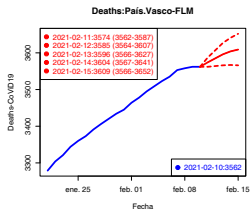


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: País Vasco

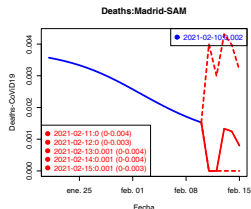
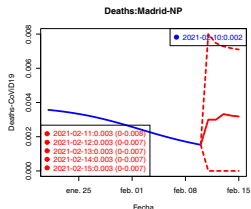
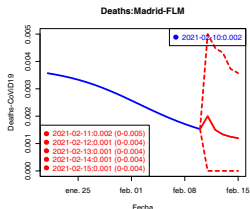
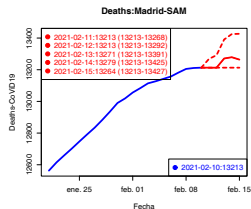
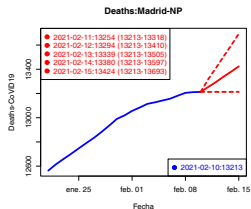
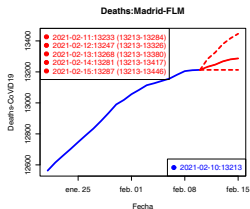


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

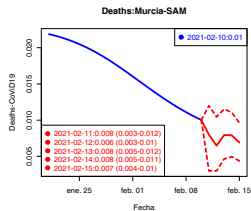
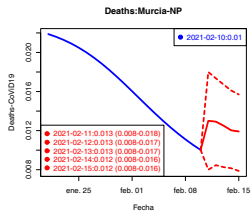
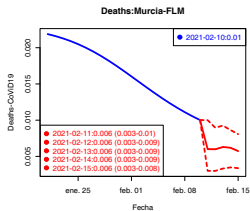
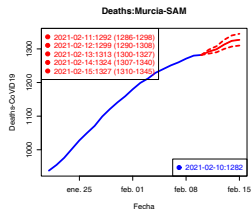
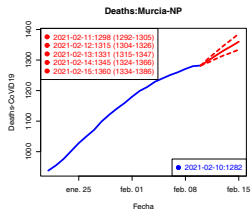
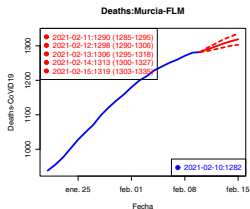
◀ Fallecidos

Fallecidos: Madrid



Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

Fallecidos: Murcia

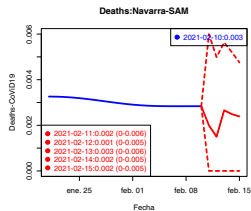
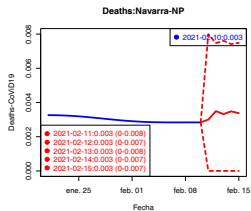
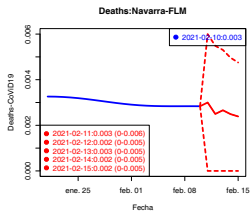
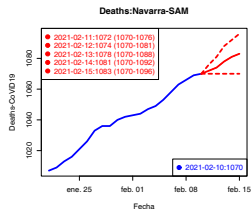
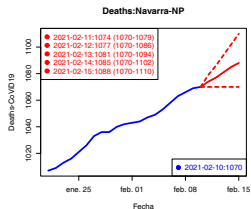
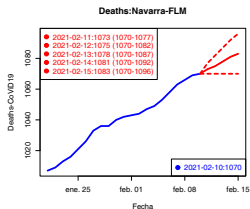


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Navarra

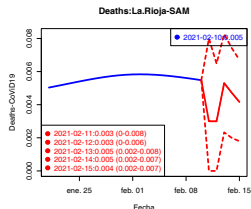
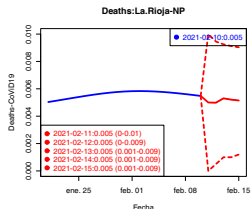
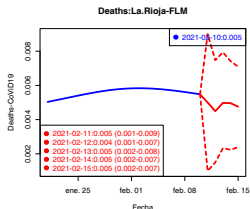
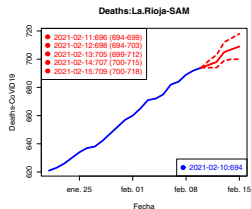
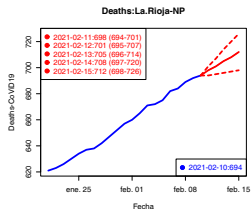
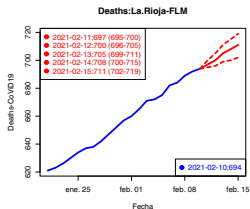


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: La Rioja



Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

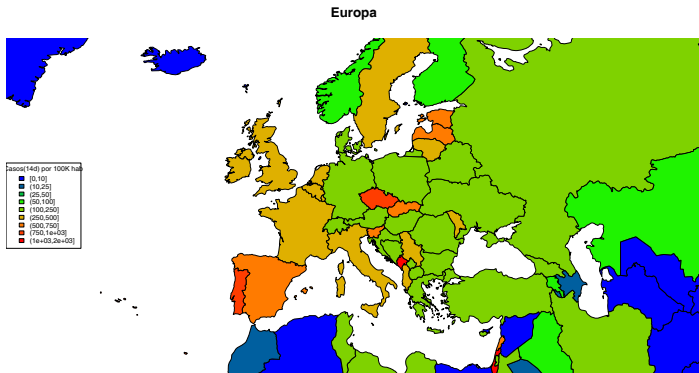
◀ Confirmados

◀ Fallecidos

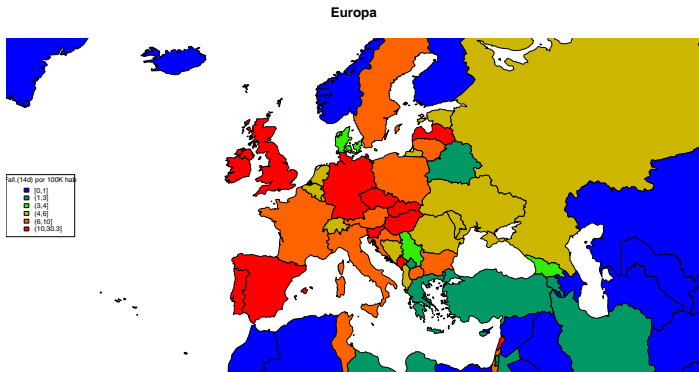
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Europa: Incidencia Acumulada (14d) por 100K hab.

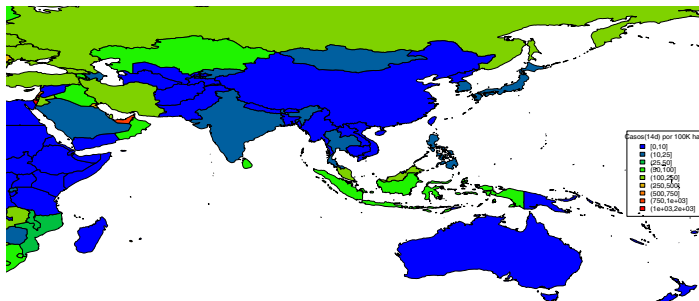


Europa: Fallecidos (14d) por 100K hab.



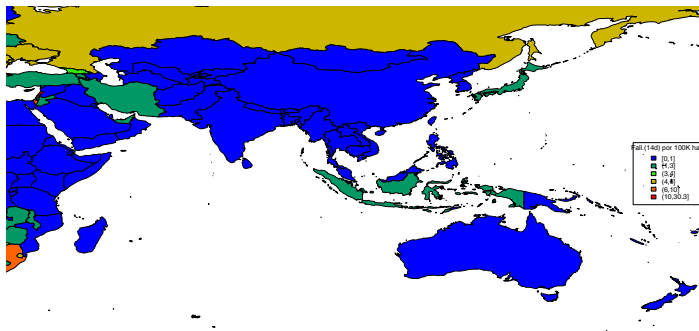
Asia y Oceanía: Incidencia acumulada (14d) por 100K hab.

Asia y Oceanía



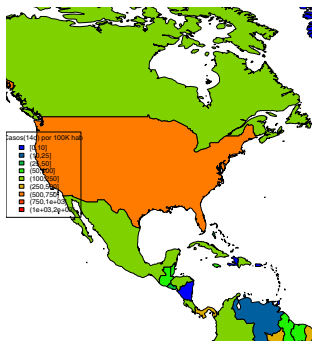
Asia y Oceanía: Fallecidos (14d) por 100K hab.

Asia y Oceanía

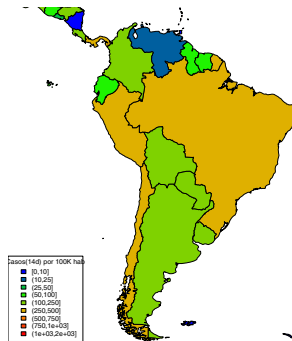


América: Incidencia acumulada (14d) por 100K hab.

América del Norte

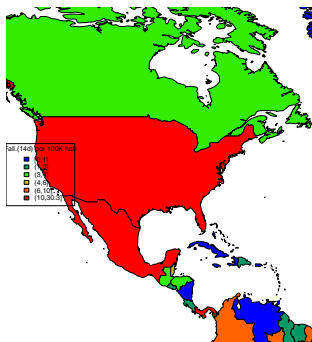


América del sur

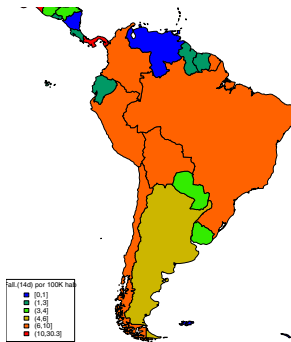


América: Fallecidos (14d) por 100K hab.

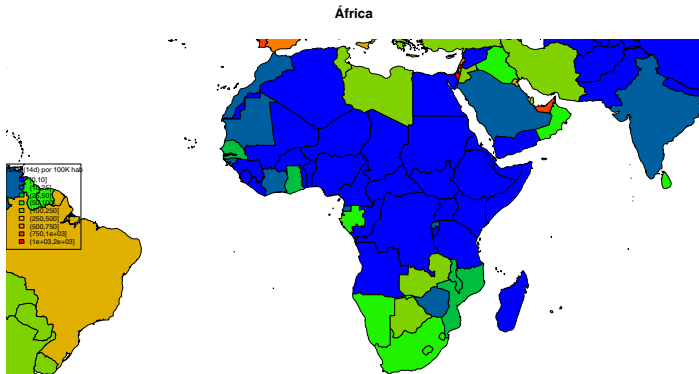
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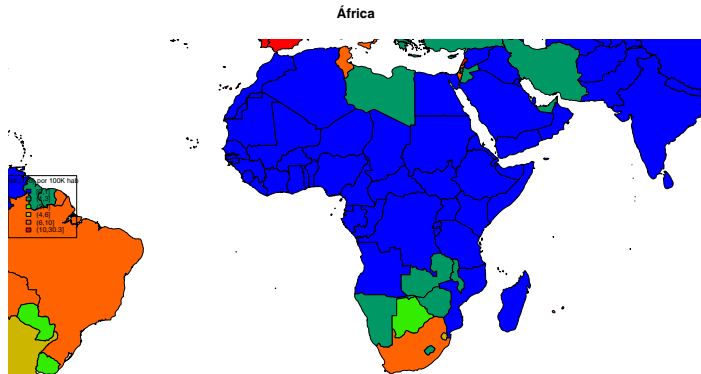
América del sur



África: Incidencia acumulada (14d) por 100K hab.



África: Fallecidos (14d) por 100K hab.



Breve descripción del Modelo de predicción

Objetivo: Predecir ratio de incremento de casos confirmados a 1–5 días: $r^{(k)}(t) = \frac{x_{t+k} - x_t}{x_t + 1}$

Información usada: Pasado de esta variable suavizada (retardo 1) durante los últimos 21 días: $R^{(1)} = \{r^{(1)}(-21), \dots, r^{(1)}(0)\}$.

Datos para alimentar el modelo: https://github.com/CSSEGISandData/COVID-19/tree/master/csse_covid_19_data/csse_covid_19_time_series/. Algunas series de tiempo (como el Diamond Princess) son filtrados por inconsistencia, presunta falta de veracidad o por valores anormalmente bajos. En la predicción final se reconstruye el número de casos esperado.

Se construyen tres modelos funcionales de la regresión general: $r^{(k)}(0) = f(R^{(1)}) + \epsilon$ donde la diferencia radica en la forma de la función f

- Lineal: $f(R^{(1)}) = \int_{-21}^0 R^{(1)}(t)\beta(t)dt$
- NP: f es una estimación no paramétrica tipo núcleo.
- SAM: f es una combinación aditiva de funciones suaves de las componentes principales funcionales.

Para el objetivo de predecir el ratio de incremento de fallecidos, se usa además del pasado de la propia variable, el ratio de incremento pasado de casos confirmados.