

Predicciones sobre CoViD-19

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DEPARTAMENTO DE ESTATÍSTICA,
ANÁLISE MATEMÁTICA E OPTIMIZACIÓN



- Predicciones

- Predicciones Fallecidos

3 Panorama internacional

Datos

Aplicación Shiny:

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

Último dato fichero CCAA: 25/04/2021

Fuente: [https:](https://)

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//cnecovid.isciii.es/covid19/resources/casos_tecnica_ccaa.csv
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Predicciones: [▶ España](#) [▶ Andalucía](#) [▶ Aragón](#) [▶ Asturias](#) [▶ I. Baleares](#) [▶ 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	0.016	0.003	0.013	0.004	0.002	0.005	0.48	0.896	0.573
H4	0.05	0.027	0.045	0.041	0.022	0.039	0.817	0.91	0.834
H8	0.207	0.125	0.194	0.181	0.096	0.172	0.824	0.903	0.836
H12	0.608	0.385	0.571	0.655	0.342	0.592	0.797	0.882	0.809
H15	1.326	0.871	1.254	1.375	0.723	1.245	0.755	0.852	0.768

Tabla Ratio Incr. Confirmados: Mod. Lineal.

Last=25/04/2021

	Last	H1	H4	H8	H12	H15
España	0.0015	0.0022	0.0059	0.0109	0.0142	0.0175
Andalucía	0.0017	0.0023	0.0063	0.0114	0.0148	0.0180
Aragón	0.0015	0.0023	0.0062	0.0118	0.0159	0.0200
Asturias	0.0012	0.0017	0.0040	0.0067	0.0074	0.0082
Canarias	0.0022	0.0027	0.0074	0.0129	0.0167	0.0200
Cantabria	0.0027	0.0038	0.0111	0.0213	0.0304	0.0385
Castilla.y.León	0.0010	0.0016	0.0040	0.0075	0.0092	0.0114
Castilla.La.Mancha	0.0010	0.0017	0.0039	0.0068	0.0080	0.0096
Cataluña	0.0021	0.0029	0.0088	0.0168	0.0237	0.0294
Ceuta	0.0016	0.0015	0.0043	0.0073	0.0082	0.0091
Comunidad.Valenciana	0.0003	0.0010	0.0018	0.0040	0.0043	0.0060
Extremadura	0.0008	0.0016	0.0037	0.0070	0.0086	0.0108
Galicia	0.0011	0.0019	0.0050	0.0097	0.0129	0.0162
Islas.Baleares	0.0005	0.0011	0.0022	0.0044	0.0046	0.0060
La.Rioja	0.0014	0.0021	0.0054	0.0099	0.0128	0.0156
Madrid	0.0018	0.0025	0.0068	0.0123	0.0162	0.0196
Melilla	0.0021	0.0024	0.0078	0.0150	0.0207	0.0256
Murcia	0.0005	0.0012	0.0024	0.0048	0.0054	0.0070
Navarra	0.0021	0.0025	0.0077	0.0149	0.0205	0.0258
País.Vasco	0.0026	0.0031	0.0079	0.0128	0.0159	0.0171

Cuadro: Previsión Ratio Incr. Confirmados: Mod. lineal - Horiz. (días).

Tabla Ratio Incr. Confirmados: Mod. No Paramétrico.

Last=25/04/2021

	Last	H1	H4	H8	H12	H15
España	0.0015	0.0024	0.0089	0.0191	0.0295	0.0392
Andalucía	0.0017	0.0029	0.0105	0.0225	0.0344	0.0455
Aragón	0.0015	0.0022	0.0084	0.0181	0.0280	0.0373
Asturias	0.0012	0.0024	0.0089	0.0191	0.0294	0.0390
Canarias	0.0022	0.0036	0.0136	0.0282	0.0425	0.0557
Cantabria	0.0027	0.0038	0.0140	0.0295	0.0451	0.0601
Castilla.y.León	0.0010	0.0017	0.0064	0.0138	0.0217	0.0290
Castilla.La.Mancha	0.0010	0.0018	0.0069	0.0148	0.0232	0.0309
Cataluña	0.0021	0.0030	0.0111	0.0237	0.0365	0.0487
Ceuta	0.0016	0.0032	0.0120	0.0252	0.0375	0.0488
Comunidad.Valenciana	0.0003	0.0009	0.0037	0.0081	0.0131	0.0180
Extremadura	0.0008	0.0015	0.0059	0.0126	0.0199	0.0267
Galicia	0.0011	0.0017	0.0066	0.0142	0.0223	0.0299
Islas.Baleares	0.0005	0.0012	0.0046	0.0100	0.0159	0.0216
La.Rioja	0.0014	0.0021	0.0079	0.0171	0.0267	0.0356
Madrid	0.0018	0.0029	0.0107	0.0229	0.0351	0.0465
Melilla	0.0021	0.0033	0.0122	0.0258	0.0391	0.0514
Murcia	0.0005	0.0011	0.0043	0.0093	0.0150	0.0204
Navarra	0.0021	0.0033	0.0120	0.0255	0.0387	0.0512
País.Vasco	0.0026	0.0042	0.0160	0.0322	0.0485	0.0631

Cuadro: Previsión Ratio Incr. Confirmados: Mod. No Paramétrico - Horiz. (días).

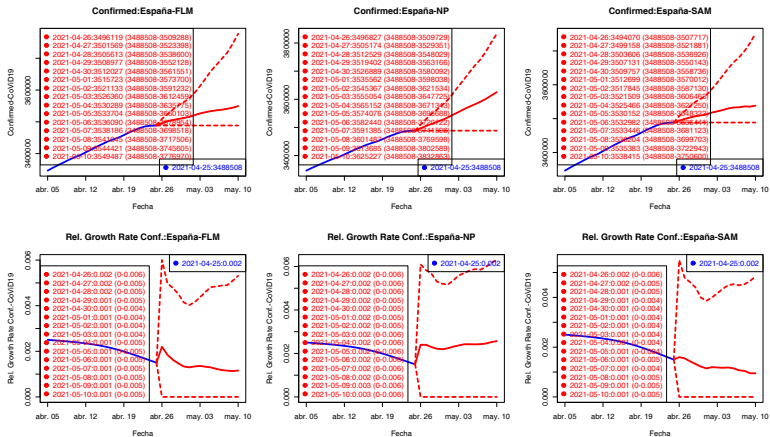
Tabla Ratio Incr. Confirmados: Mod. Aditivo.

Last=25/04/2021

	Last	H1	H4	H8	H12	H15
España	0.0015	0.0016	0.0053	0.0095	0.0129	0.0143
Andalucía	0.0017	0.0016	0.0056	0.0099	0.0129	0.0139
Aragón	0.0015	0.0016	0.0057	0.0106	0.0153	0.0183
Asturias	0.0012	0.0011	0.0034	0.0045	0.0048	0.0022
Canarias	0.0022	0.0022	0.0070	0.0112	0.0144	0.0149
Cantabria	0.0027	0.0036	0.0113	0.0205	0.0300	0.0371
Castilla.y.León	0.0010	0.0010	0.0036	0.0068	0.0098	0.0119
Castilla.La.Mancha	0.0010	0.0010	0.0034	0.0060	0.0082	0.0094
Cataluña	0.0021	0.0027	0.0085	0.0149	0.0211	0.0233
Ceuta	0.0016	0.0011	0.0040	0.0057	0.0067	0.0039
Comunidad.Valenciana	0.0003	0.0003	0.0017	0.0039	0.0076	0.0111
Extremadura	0.0008	0.0008	0.0032	0.0061	0.0092	0.0115
Galicia	0.0011	0.0014	0.0048	0.0090	0.0136	0.0168
Islas.Baleares	0.0005	0.0004	0.0019	0.0041	0.0068	0.0091
La.Rioja	0.0014	0.0017	0.0051	0.0087	0.0122	0.0135
Madrid	0.0018	0.0019	0.0063	0.0107	0.0142	0.0153
Melilla	0.0021	0.0020	0.0071	0.0130	0.0172	0.0178
Murcia	0.0005	0.0006	0.0023	0.0046	0.0080	0.0108
Navarra	0.0021	0.0019	0.0068	0.0126	0.0170	0.0186
País.Vasco	0.0026	0.0035	0.0088	0.0123	0.0156	0.0130

Cuadro: Previsión Ratio Incr. Confirmados: Mod. Aditivo - Horiz. (días).

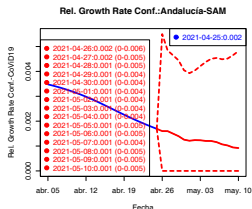
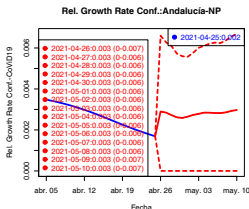
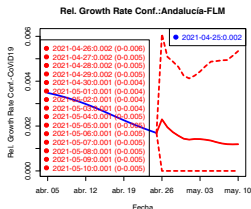
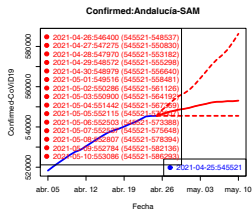
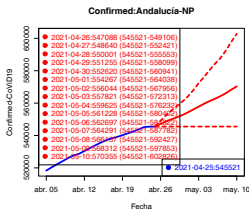
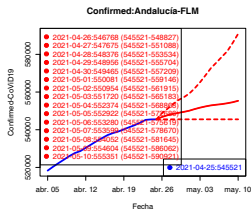
Confirmados: España



Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados ▶ Fallecidos

Confirmados: Andalucía

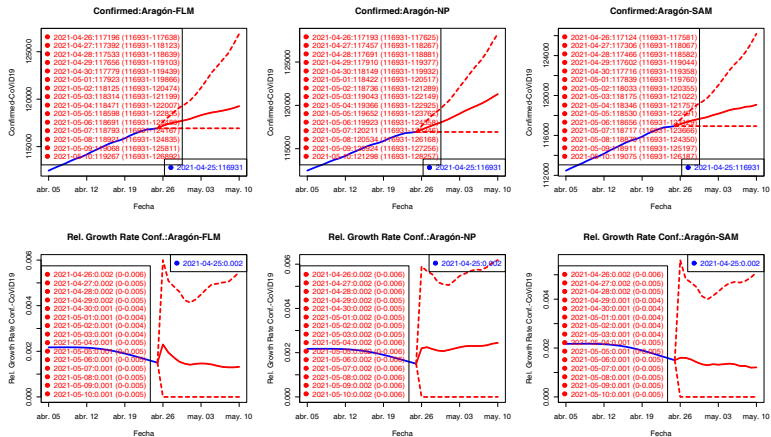


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

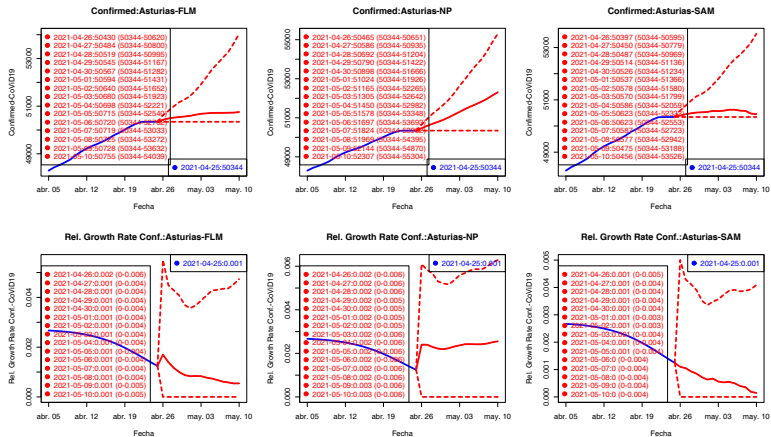
◀ Confirmados

◀ Fallecidos

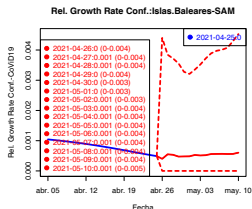
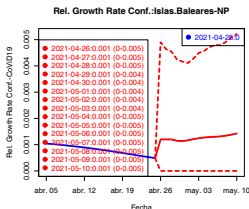
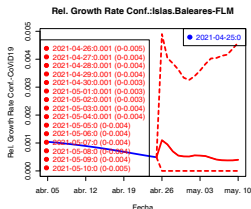
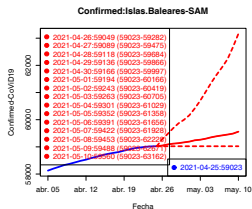
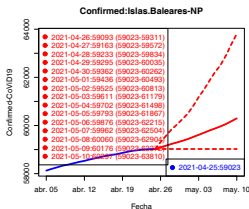
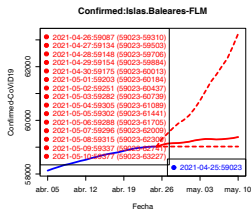
Confirmados: Aragón



Confirmados: Asturias



Confirmados: Islas Baleares

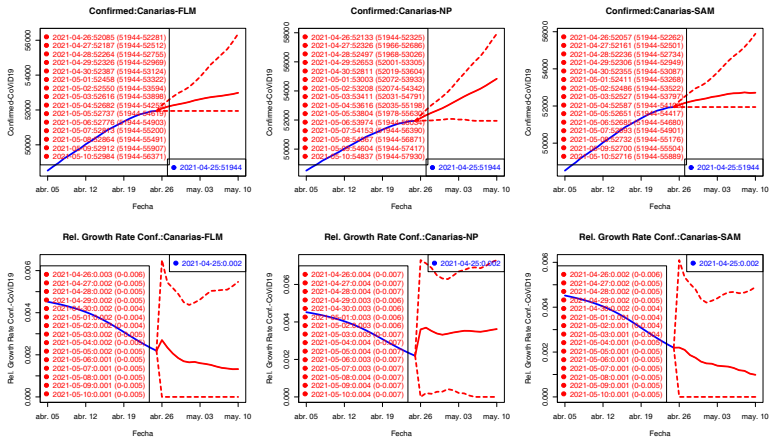


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

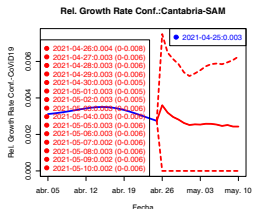
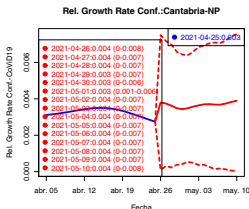
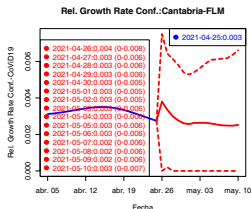
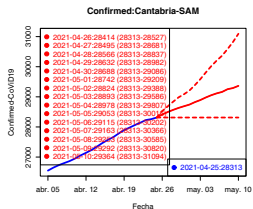
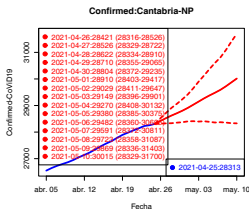
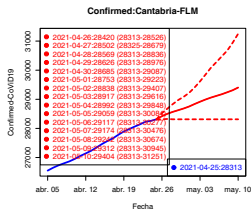
◀ Fallecidos

Confirmados: Canarias



Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

Confirmados: Cantabria



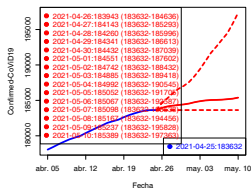
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

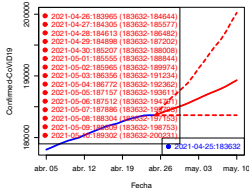
◀ Fallecidos

Confirmados: Castilla-La Mancha

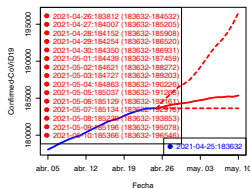
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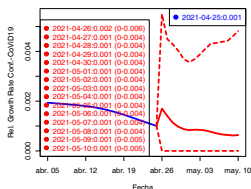
Confirmed:Castilla.La.Mancha-NP



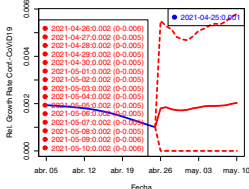
Confirmed:Castilla.La.Mancha-SAM



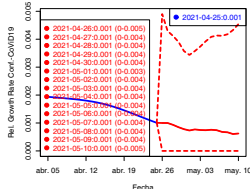
Rel. Growth Rate Conf.:Castilla.La.Mancha-FLM



Rel. Growth Rate Conf.:Castilla.La.Mancha-NP



Rel. Growth Rate Conf.:Castilla.La.Mancha-SAM



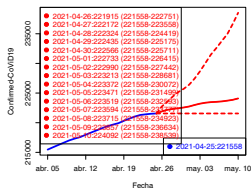
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

← Confirmados

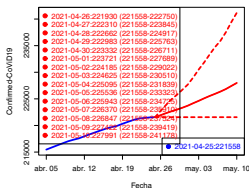
← Fallecidos

Confirmados: Castilla y León

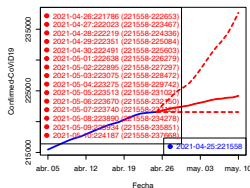
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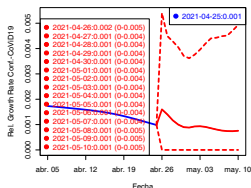
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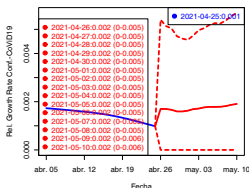
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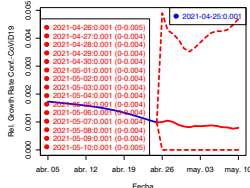
Rel. Growth Rate Conf.:Castilla.y.León-FLM



Rel. Growth Rate Conf.:Castilla.y.León-NP



Rel. Growth Rate Conf.:Castilla.y.León-SAM

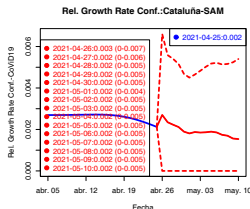
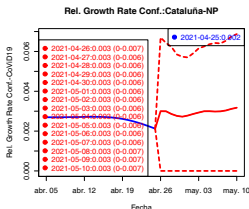
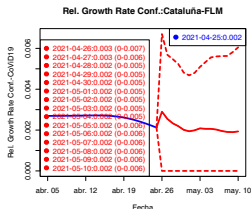
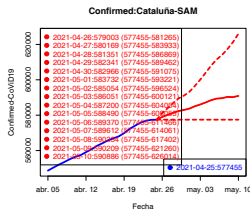
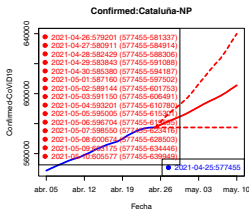
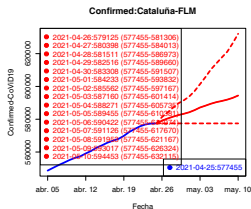


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

← Confirmados

← Fallecidos

Confirmados: Cataluña



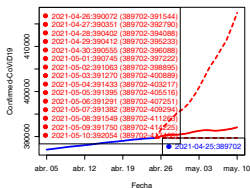
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

← Confirmados

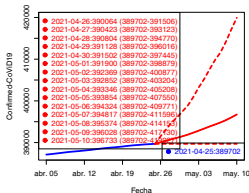
← Fallecidos

Confirmados: C. Valenciana

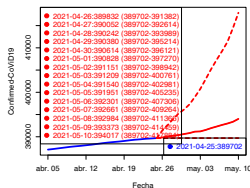
Confirmed: Comunidad.Valenciana-FLM



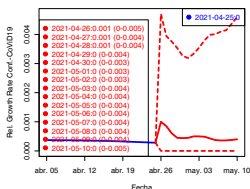
Confirmed: Comunidad.Valenciana-NP



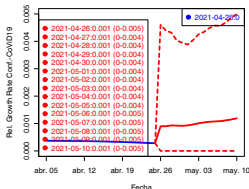
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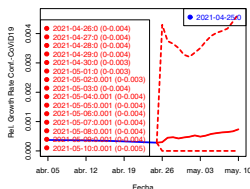
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Rel. Growth Rate Conf.: Comunidad.Valenciana-NP



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

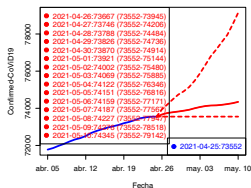


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

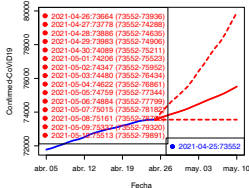
◀ Confirmados ▶ Fallecidos

Confirmados: Extremadura

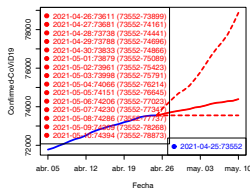
Confirmed:Extremadura-FLM



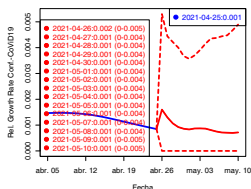
Confirmed:Extremadura-NP



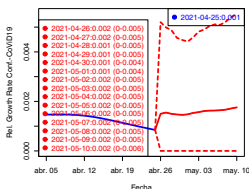
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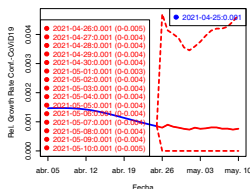
Rel. Growth Rate Conf.:Extremadura-FLM



Rel. Growth Rate Conf.:Extremadura-NP



Rel. Growth Rate Conf.:Extremadura-SAM



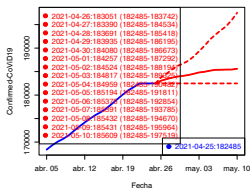
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

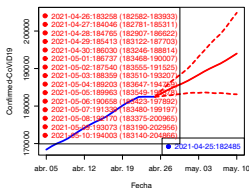
◀ Fallecidos

Confirmados: País Vasco

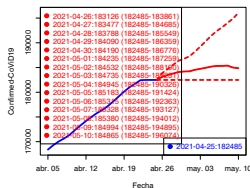
Confirmed:País.Vasco-FLM



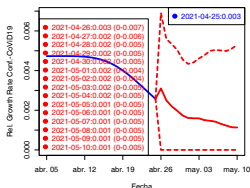
Confirmed:País.Vasco-NP



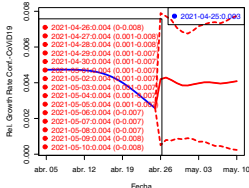
Confirmed:País.Vasco-SAM



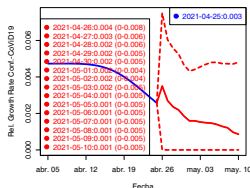
Rel. Growth Rate Conf.:País.Vasco-FLM



Rel. Growth Rate Conf.:País.Vasco-NP



Rel. Growth Rate Conf.:País.Vasco-SAM

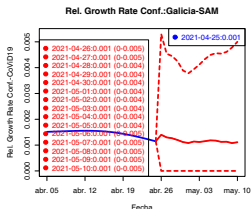
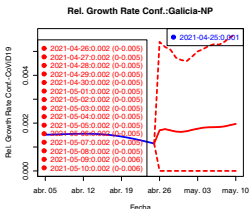
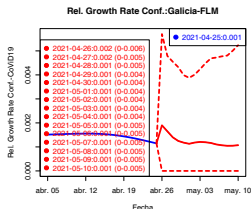
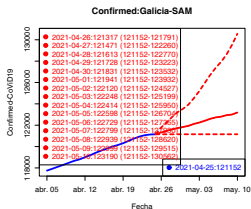
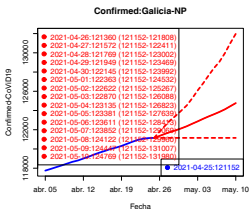
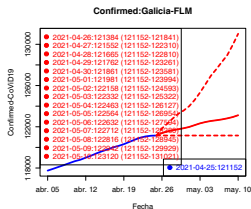


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

← Confirmados

← Fallecidos

Confirmados: Galicia

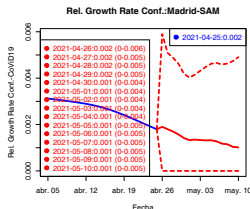
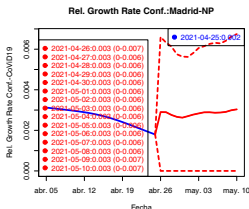
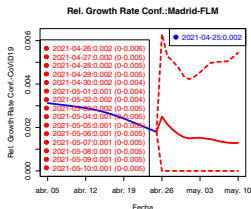
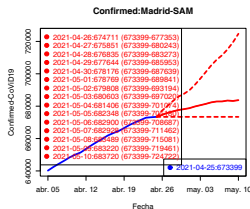
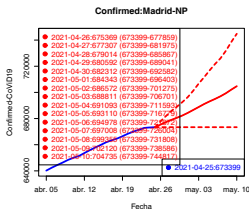
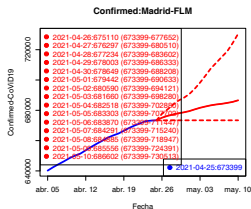


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

← Confirmados

← Fallecidos

Confirmados: Madrid

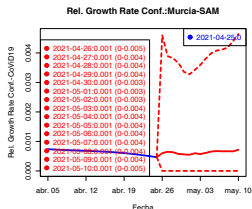
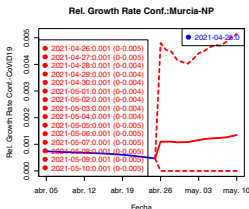
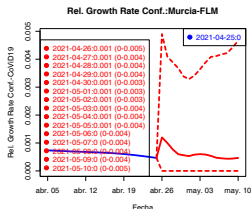
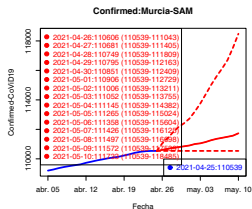
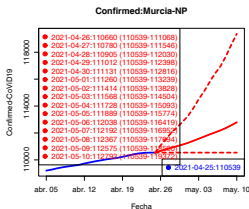
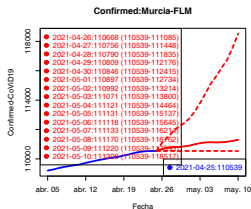


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Murcia

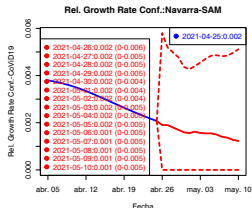
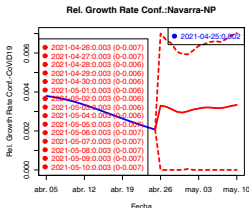
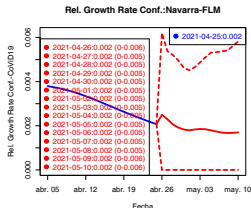
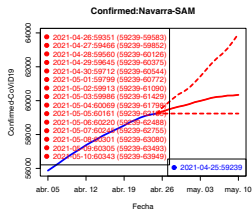
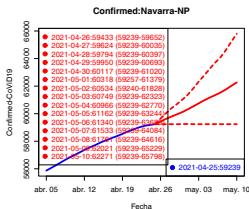
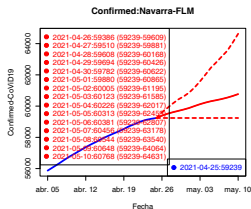


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

← Confirmados

← Fallecidos

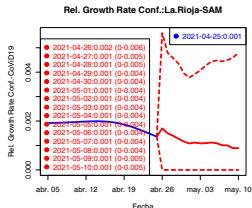
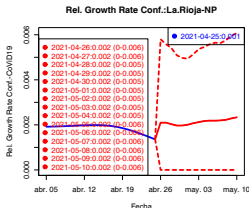
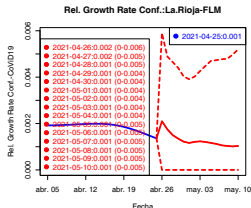
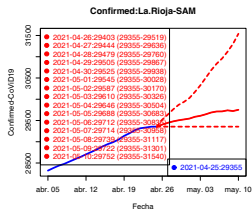
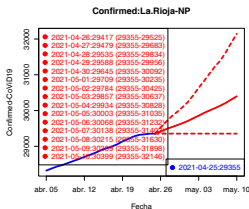
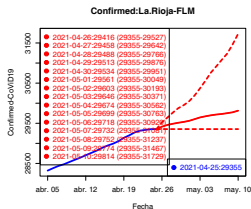
Confirmados: Navarra



Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados ▶ Fallecidos

Confirmados: La Rioja



Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

← Confirmados

← Fallecidos

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- 1 Casos Confirmados
 - Predicciones
- 2 Fallecidos
 - Predicciones Fallecidos
- 3 Panorama internacional

Modelos para fallecidos por CoViD-19

Último dato: 25/04/2021 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	0.005	0.004	0.005	0.001	0.001	0.001	0.559	0.621	0.564
H4	0.019	0.018	0.018	0.009	0.009	0.008	0.818	0.831	0.829
H8	0.064	0.068	0.059	0.035	0.04	0.031	0.858	0.853	0.868
H12	0.137	0.148	0.121	0.092	0.099	0.077	0.864	0.857	0.879
H15	0.214	0.239	0.18	0.166	0.204	0.125	0.873	0.862	0.893

Tabla Previsión Fallecidos: Mod. Lineal.

Last=25/04/2021

	Last	H1	H4	H8	H12	H15
España	77343	77382	77413	77451	77349	77343
Andalucía	9483	9490	9499	9512	9506	9488
Aragón	3405	3407	3410	3413	3410	3405
Asturias	1942	1943	1945	1947	1946	1942
Canarias	713	714	717	721	723	723
Cantabria	554	554	554	555	554	554
Castilla.y.León	6687	6691	6694	6698	6692	6687
Castilla.La.Mancha	5813	5815	5813	5813	5813	5813
Cataluña	13812	13816	13818	13817	13812	13812
Ceuta	103	103	104	105	106	106
Comunidad.Valenciana	7220	7221	7220	7220	7220	7220
Extremadura	1769	1770	1771	1776	1775	1774
Galicia	2366	2367	2368	2370	2368	2366
Islas.Baleares	814	814	814	814	814	814
La.Rioja	757	757	757	757	757	757
Madrid	14950	14959	14969	14977	14960	14950
Melilla	89	89	90	90	91	91
Murcia	1586	1587	1586	1586	1586	1586
Navarra	1151	1153	1156	1163	1167	1171
País.Vasco	4129	4130	4131	4129	4129	4129

Cuadro: Previsión fallecidos: Mod. lineal - Horiz. (días).

Tabla Previsión Fallecidos: Mod. No Paramétrico.

Last=25/04/2021

	Last	H1	H4	H8	H12	H15
España	77343	77430	77729	78181	78616	79029
Andalucía	9483	9496	9537	9601	9662	9722
Aragón	3405	3409	3423	3445	3466	3486
Asturias	1942	1944	1952	1964	1975	1986
Canarias	713	715	720	728	735	742
Cantabria	554	555	557	560	564	567
Castilla.y.León	6687	6694	6718	6755	6790	6824
Castilla.La.Mancha	5813	5819	5841	5873	5904	5934
Cataluña	13812	13826	13875	13947	14016	14082
Ceuta	103	103	104	105	106	108
Comunidad.Valenciana	7220	7226	7249	7283	7314	7344
Extremadura	1769	1771	1778	1788	1798	1808
Galicia	2366	2368	2377	2390	2402	2414
Islas.Baleares	814	815	817	821	825	828
La.Rioja	757	758	761	765	769	772
Madrid	14950	14969	15030	15124	15215	15302
Melilla	89	89	90	92	93	94
Murcia	1586	1587	1593	1601	1608	1615
Navarra	1151	1153	1158	1166	1174	1182
País.Vasco	4129	4135	4154	4182	4210	4238

Cuadro: Previsión fallecidos: Mod. No Paramétrico - Horiz. (días).

Tabla Ratio Incr. Fallecidos: Mod. Lineal.

Last=25/04/2021

	Last	H1	H4	H8	H12	H15
España	0.0005	0.0005	0.0009	0.0014	0.0001	0.0000
Andalucía	0.0008	0.0008	0.0017	0.0030	0.0024	0.0005
Aragón	0.0006	0.0006	0.0014	0.0022	0.0015	0.0000
Asturias	0.0007	0.0007	0.0018	0.0028	0.0021	0.0002
Canarias	0.0020	0.0018	0.0053	0.0113	0.0135	0.0146
Cantabria	0.0005	0.0004	0.0009	0.0013	0.0000	0.0000
Castilla.y.León	0.0005	0.0006	0.0010	0.0017	0.0008	0.0000
Castilla.La.Mancha	0.0004	0.0003	0.0000	0.0000	0.0000	0.0000
Cataluña	0.0002	0.0003	0.0004	0.0004	0.0000	0.0000
Ceuta	0.0029	0.0032	0.0098	0.0189	0.0273	0.0300
Comunidad.Valenciana	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000
Extremadura	0.0007	0.0007	0.0014	0.0037	0.0032	0.0027
Galicia	0.0004	0.0005	0.0010	0.0016	0.0009	0.0000
Islas.Baleares	0.0002	0.0003	0.0000	0.0004	0.0000	0.0000
La.Rioja	0.0003	0.0004	0.0004	0.0000	0.0000	0.0000
Madrid	0.0006	0.0006	0.0012	0.0018	0.0006	0.0000
Melilla	0.0026	0.0020	0.0073	0.0139	0.0171	0.0210
Murcia	0.0002	0.0003	0.0000	0.0000	0.0000	0.0000
Navarra	0.0014	0.0014	0.0045	0.0107	0.0135	0.0171
País.Vasco	0.0006	0.0002	0.0005	0.0000	0.0000	0.0000

Cuadro: Previsión Ratio Incr. Fallecidos: Mod. lineal - Horiz. (días).

	Last	H1	H4	H8	H12	H15
España	0.0005	0.0011	0.0050	0.0108	0.0165	0.0218
Andalucía	0.0008	0.0014	0.0057	0.0124	0.0189	0.0252
Aragón	0.0006	0.0013	0.0054	0.0118	0.0180	0.0239
Asturias	0.0007	0.0012	0.0051	0.0111	0.0169	0.0225
Canarias	0.0020	0.0026	0.0092	0.0205	0.0309	0.0412
Cantabria	0.0005	0.0012	0.0054	0.0116	0.0177	0.0235
Castilla.y.León	0.0005	0.0010	0.0047	0.0102	0.0155	0.0204
Castilla.La.Mancha	0.0004	0.0011	0.0048	0.0104	0.0157	0.0208
Cataluña	0.0002	0.0010	0.0045	0.0098	0.0148	0.0195
Ceuta	0.0029	0.0028	0.0099	0.0222	0.0335	0.0450
Comunidad.Valenciana	0.0001	0.0008	0.0040	0.0087	0.0130	0.0171
Extremadura	0.0007	0.0011	0.0050	0.0108	0.0165	0.0219
Galicia	0.0004	0.0010	0.0047	0.0102	0.0154	0.0203
Islas.Baleares	0.0002	0.0009	0.0041	0.0088	0.0133	0.0175
La.Rioja	0.0003	0.0010	0.0047	0.0101	0.0153	0.0202
Madrid	0.0006	0.0012	0.0053	0.0116	0.0177	0.0236
Melilla	0.0026	0.0037	0.0130	0.0279	0.0412	0.0531
Murcia	0.0002	0.0009	0.0043	0.0094	0.0141	0.0186
Navarra	0.0014	0.0015	0.0060	0.0132	0.0202	0.0269
País.Vasco	0.0006	0.0014	0.0059	0.0129	0.0197	0.0263

Cuadro: Previsión Ratio Incr. Fallecidos: Mod. No Paramétrico - Horiz. (días).

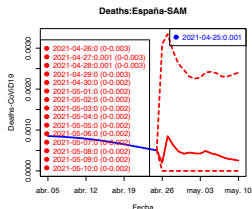
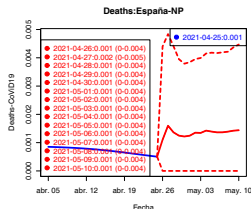
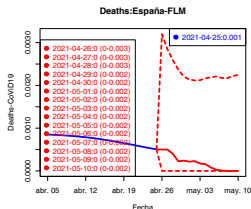
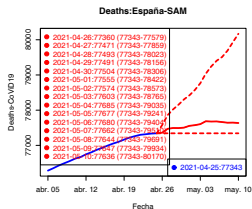
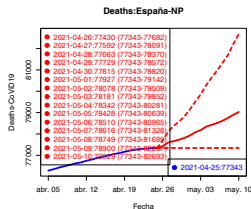
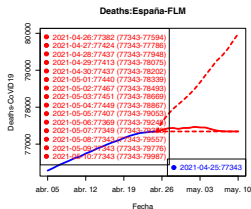
Tabla Ratio Incr. Fallecidos: Mod. Aditivo.

Last=25/04/2021

	Last	H1	H4	H8	H12	H15
España	0.0005	0.0002	0.0019	0.0034	0.0041	0.0038
Andalucía	0.0008	0.0005	0.0021	0.0050	0.0049	0.0039
Aragón	0.0006	0.0004	0.0025	0.0045	0.0063	0.0073
Asturias	0.0007	0.0003	0.0020	0.0020	0.0036	0.0017
Canarias	0.0020	0.0018	0.0067	0.0164	0.0204	0.0237
Cantabria	0.0005	0.0003	0.0030	0.0054	0.0061	0.0071
Castilla.y.León	0.0005	0.0002	0.0018	0.0031	0.0046	0.0045
Castilla.La.Mancha	0.0004	0.0001	0.0015	0.0036	0.0039	0.0042
Cataluña	0.0002	0.0000	0.0017	0.0013	0.0018	0.0006
Ceuta	0.0029	0.0022	0.0040	0.0103	0.0148	0.0094
Comunidad.Valenciana	0.0001	0.0000	0.0007	0.0011	0.0021	0.0025
Extremadura	0.0007	0.0005	0.0026	0.0073	0.0095	0.0124
Galicia	0.0004	0.0002	0.0018	0.0020	0.0041	0.0043
Islas.Baleares	0.0002	0.0000	0.0009	0.0021	0.0030	0.0032
La.Rioja	0.0003	0.0001	0.0021	0.0028	0.0039	0.0034
Madrid	0.0006	0.0003	0.0022	0.0040	0.0044	0.0035
Melilla	0.0026	0.0014	0.0071	0.0147	0.0218	0.0291
Murcia	0.0002	0.0000	0.0015	0.0034	0.0047	0.0058
Navarra	0.0014	0.0011	0.0036	0.0079	0.0113	0.0127
País.Vasco	0.0006	0.0000	0.0027	0.0035	0.0025	0.0000

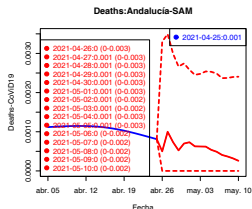
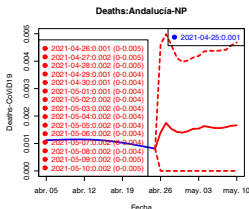
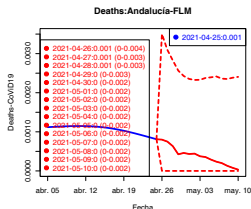
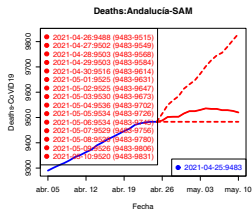
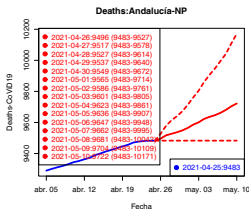
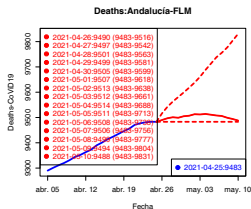
Cuadro: Previsión Ratio Incr. Fallecidos: Mod. Aditivo - Horizonte 1 – 5 días.

Fallecidos: España



Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: Andalucía

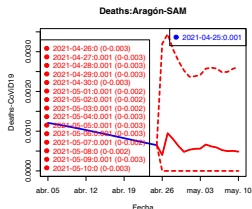
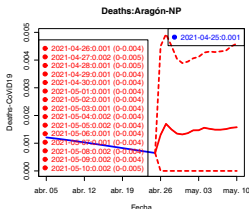
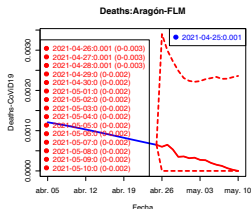
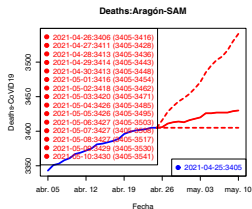
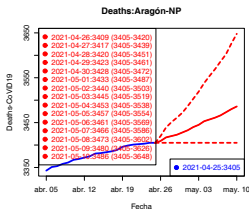
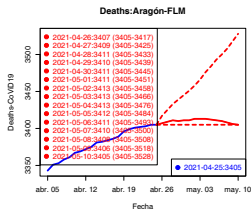


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Aragón

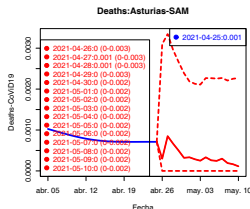
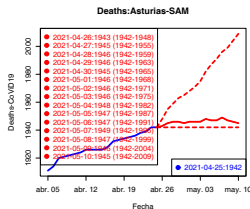


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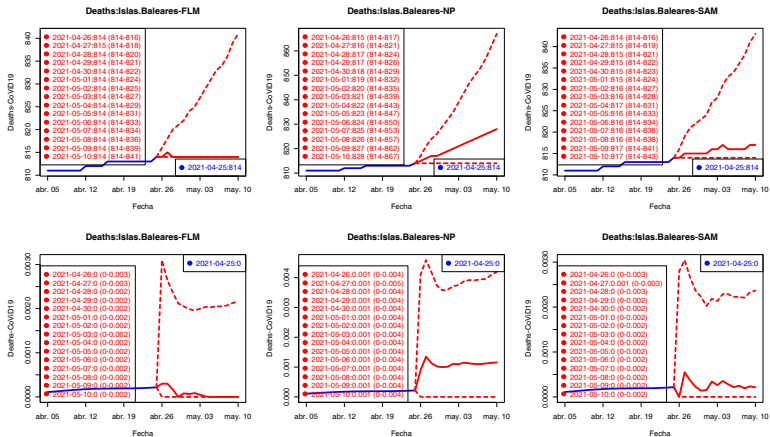
◀ Confirmados

◀ Fallecidos

Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.



Fallecidos: Islas Baleares

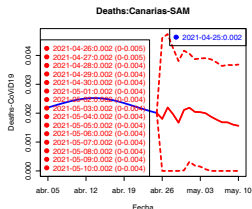
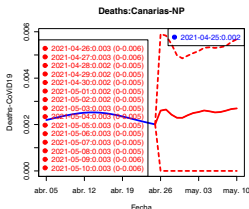
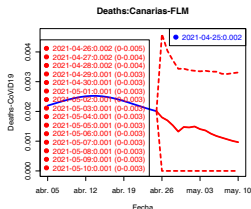
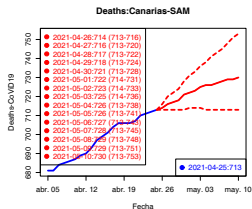
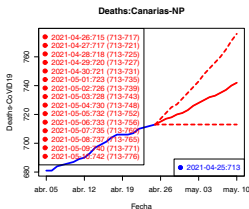
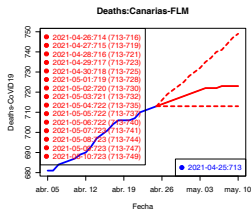


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

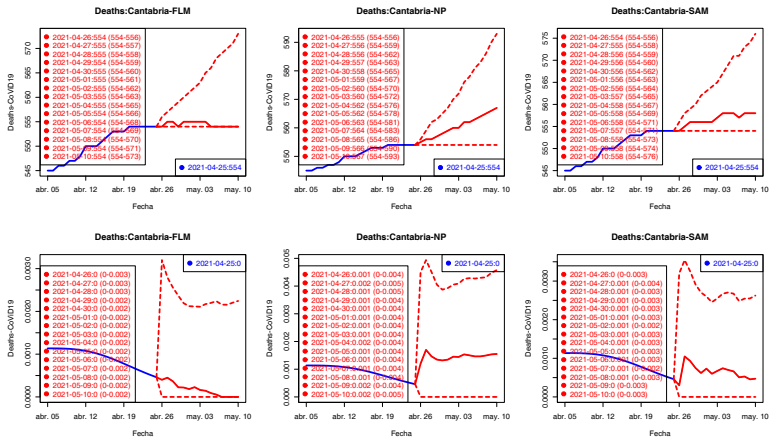
◀ Fallecidos

Fallecidos: Canarias



Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: Cantabria

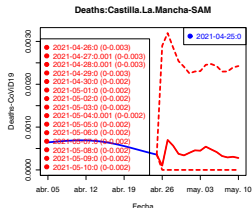
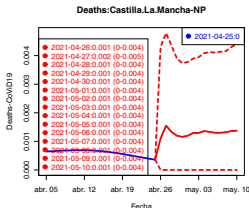
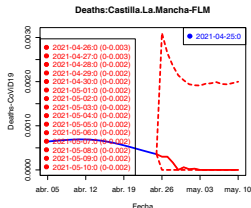
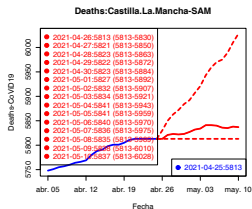
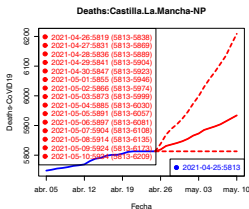
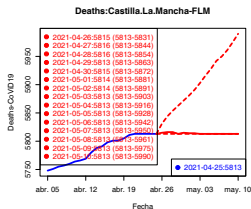


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

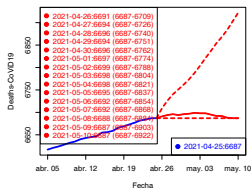
Fallecidos: Castilla-La Mancha



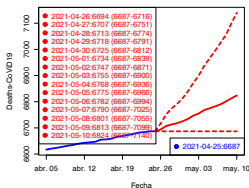
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Fallecidos: Castilla y León

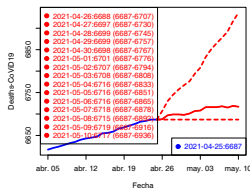
Deaths:Castilla y León-FLM



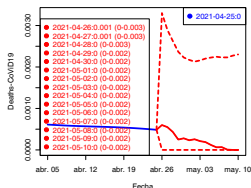
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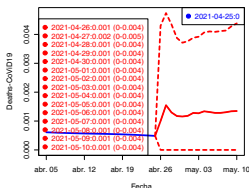
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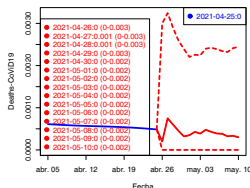
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Deaths:Castilla y León-NP



Deaths:Castilla y León-SAM

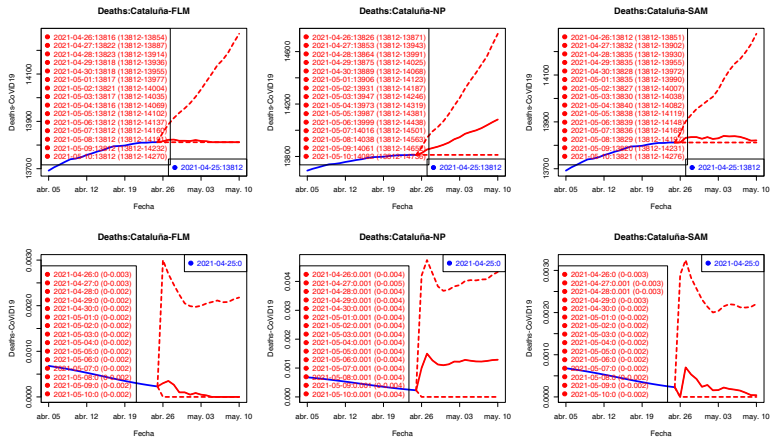


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Cataluña



Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

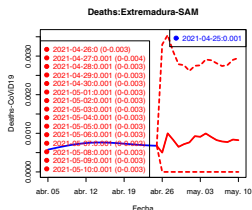
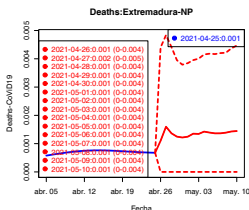
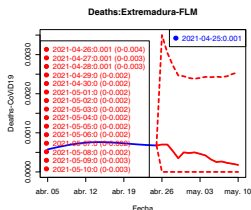
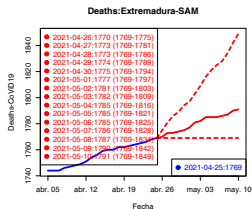
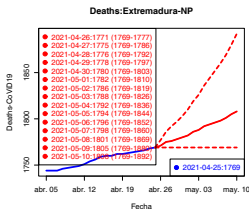
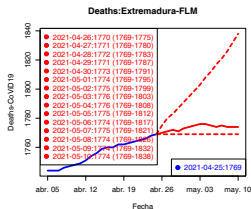
◀ Confirmados

◀ Fallecidos



Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

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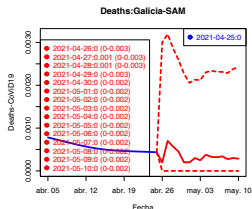
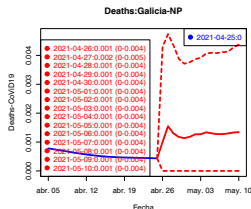
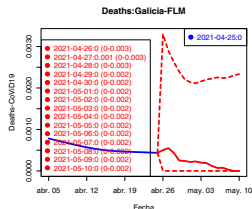
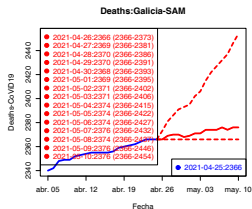
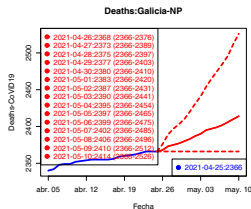
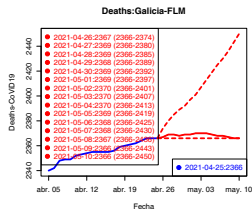


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

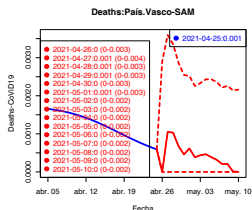
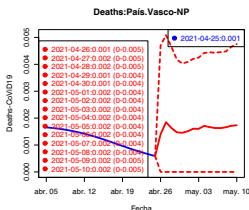
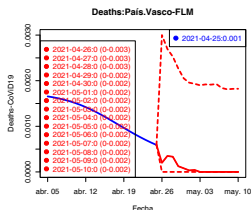
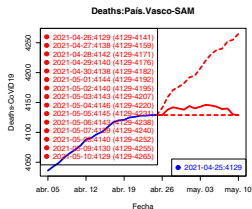
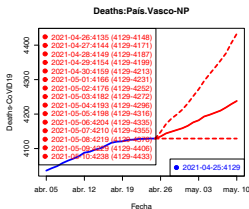
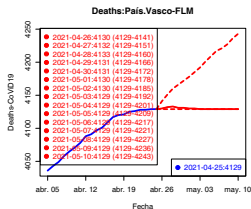
◀ Fallecidos

Fallecidos: Galicia

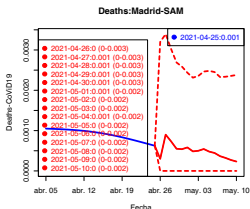
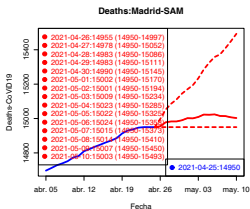


Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: País Vasco

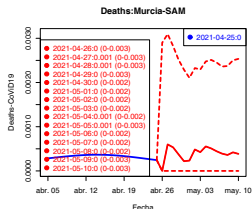
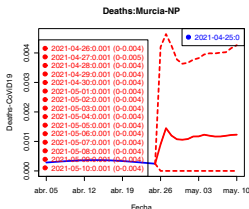
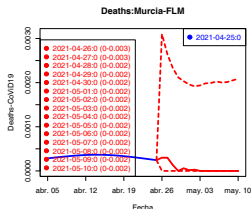
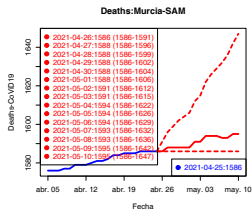
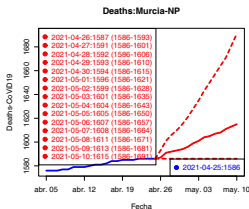
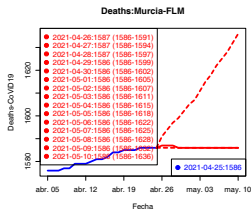


Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.



◀ Confirmados ◀ Fallecidos

Fallecidos: Murcia

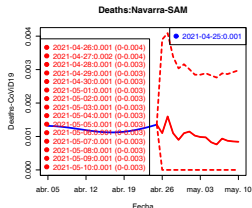
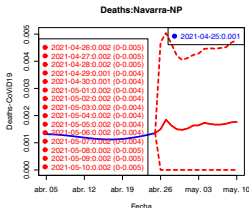
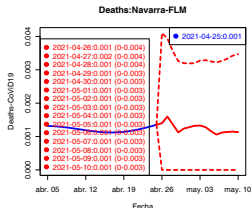
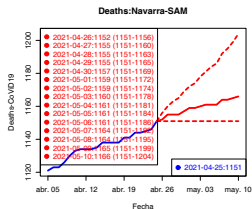
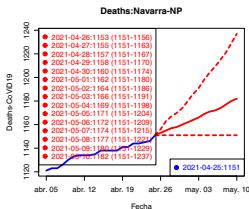
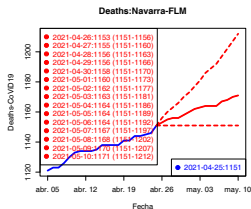


Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

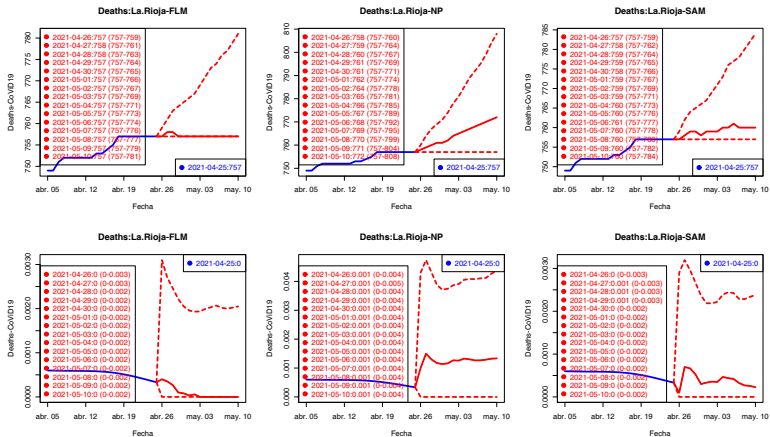
◀ Fallecidos

Fallecidos: Navarra



Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: La Rioja



Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

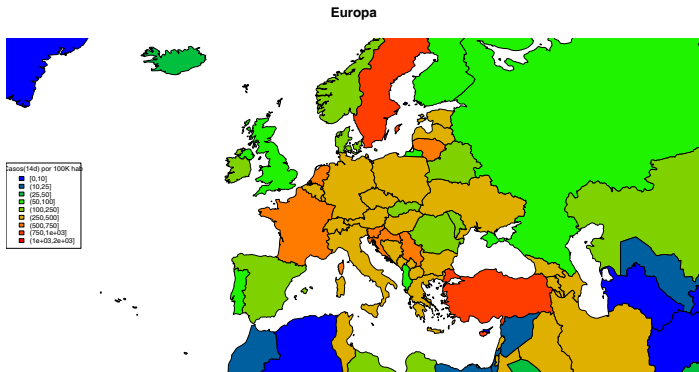
◀ Confirmados

◀ Fallecidos

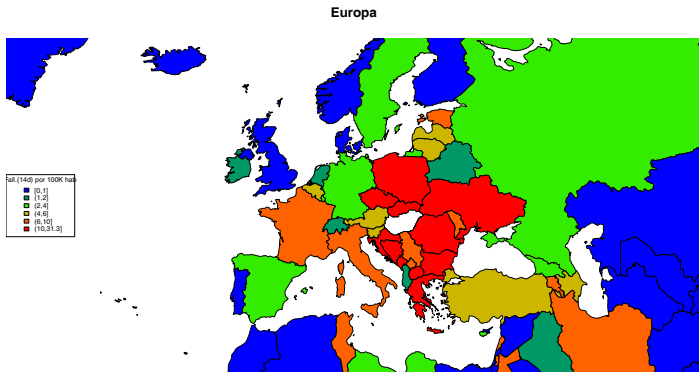
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- 3 Panorama internacional

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

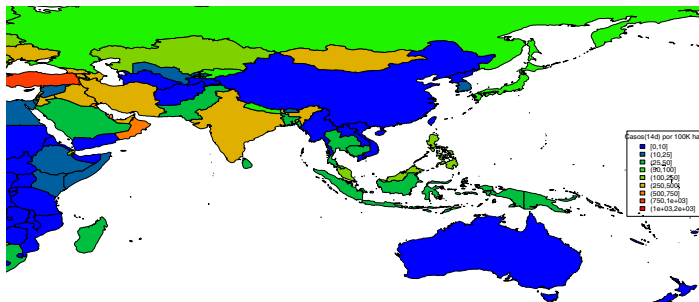


Europa: Fallecidos (14d) por 100K hab.



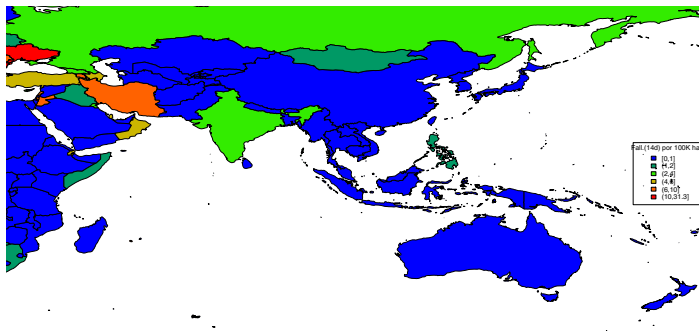
Asia y Oceanía: Incidencia acumulada (14d) por 100K hab.

Asia y Oceanía



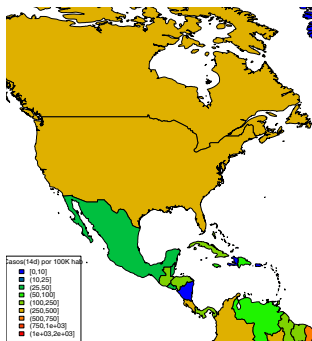
Asia y Oceanía: Fallecidos (14d) por 100K hab.

Asia y Oceanía

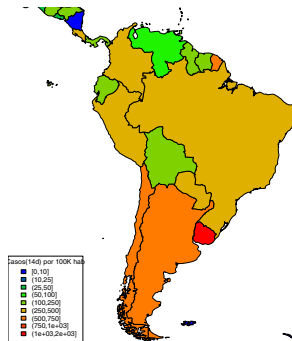


América: Incidencia acumulada (14d) por 100K hab.

América del Norte

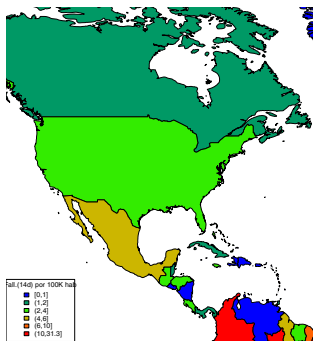


América del sur

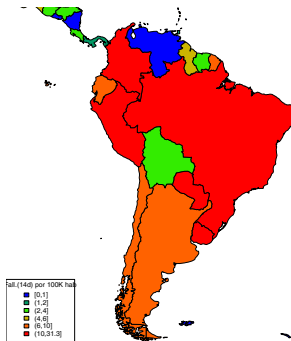


América: Fallecidos (14d) por 100K hab.

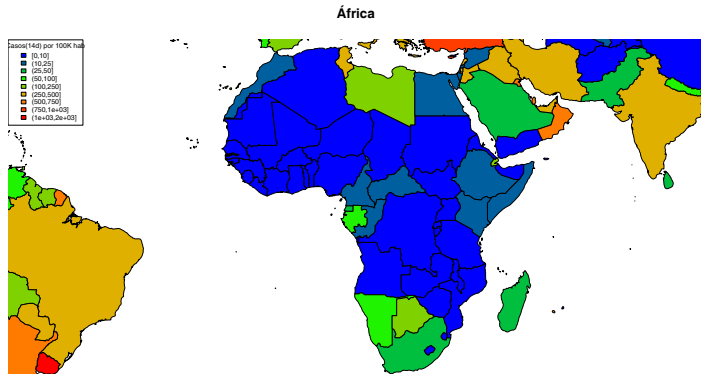
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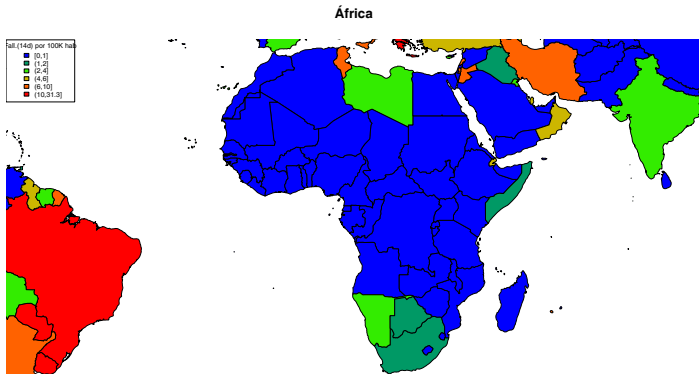
América del sur



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.