

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: 07/04/2021

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	0.017	0.004	0.014	0.004	0.002	0.005	0.476	0.898	0.569
H4	0.053	0.028	0.048	0.041	0.023	0.041	0.814	0.91	0.832
H8	0.214	0.126	0.201	0.185	0.103	0.179	0.825	0.906	0.836
H12	0.625	0.391	0.588	0.679	0.358	0.623	0.798	0.885	0.81
H15	1.367	0.89	1.292	1.44	0.74	1.289	0.756	0.855	0.769

Tabla Previsión Confirmados: Mod. No Paramétrico.

Last=07/04/2021

	Last	IA14	IA7	H1	H4	H8	H12	H15
España	3335766	147	62	3342066	3359995	3387015	3416566	3443573
Andalucía	516149	157	75	517287	520485	525380	530645	535492
Aragón	112503	169	81	112698	113264	114110	115055	115922
Asturias	48168	127	45	48287	48608	49106	49622	50098
Canarias	48379	100	43	48568	49093	49843	50588	51274
Cantabria	26555	122	53	26615	26783	27041	27316	27569
Castilla.y.León	215454	160	76	215798	216806	218301	219990	221548
Castilla.La.Mancha	177505	114	41	177748	178465	179518	180726	181846
Cataluña	543725	146	35	544848	547931	552644	557623	562143
Ceuta	5378	409	186	5405	5482	5594	5711	5819
Comunidad.Valenciana	386758	28	11	387118	388200	389813	391742	393605
Extremadura	71849	114	53	71961	72289	72776	73326	73834
Galicia	117608	60	23	117777	118270	118996	119823	120585
Islas.Baleares	58089	52	22	58162	58379	58696	59064	59406
La.Rioja	28286	168	72	28334	28473	28681	28913	29127
Madrid	638588	265	121	640134	644403	650993	657954	664391
Melilla	8122	412	178	8153	8238	8364	8492	8613
Murcia	109215	58	23	109337	109700	110234	110862	111456
Navarra	55823	331	153	56015	56524	57311	58115	58884
País.Vasco	167612	248	115	168099	169410	171448	173556	175538

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

Tabla Previsión Confirmados: Mod. Aditivo.

Last=07/04/2021

	Last	IA14	IA7	H1	H4	H8	H12	H15
España	3335766	147	62	3340534	3354542	3374271	3393962	3413399
Andalucía	516149	157	75	517312	520635	525555	530649	535322
Aragón	112503	169	81	112699	113264	114145	115095	116059
Asturias	48168	127	45	48230	48374	48483	48550	48521
Canarias	48379	100	43	48516	48863	49316	49668	49922
Cantabria	26555	122	53	26608	26752	26949	27147	27333
Castilla.y.León	215454	160	76	215797	216760	218134	219705	221126
Castilla.La.Mancha	177505	114	41	177660	178127	178751	179481	180245
Cataluña	543725	146	35	544035	544805	544790	544490	544263
Ceuta	5378	409	186	5415	5490	5594	5717	5827
Comunidad.Valenciana	386758	28	11	386876	387485	388327	389848	391412
Extremadura	71849	114	53	71955	72230	72634	73080	73507
Galicia	117608	60	23	117717	118020	118429	118869	119349
Islas.Baleares	58089	52	22	58129	58266	58442	58663	58863
La.Rioja	28286	168	72	28329	28447	28594	28763	28916
Madrid	638588	265	121	639933	644123	650611	657125	663790
Melilla	8122	412	178	8149	8220	8320	8413	8496
Murcia	109215	58	23	109285	109528	109877	110357	110853
Navarra	55823	331	153	55998	56424	56936	57463	57829
País.Vasco	167612	248	115	168030	169123	170632	172043	173169

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

Tabla Ratio Incr. Confirmados: Mod. Lineal.

Last=07/04/2021

	Last	H1	H4	H8	H12	H15
España	0.0013	0.0021	0.0059	0.0120	0.0164	0.0214
Andalucía	0.0019	0.0027	0.0088	0.0184	0.0267	0.0352
Aragón	0.0014	0.0022	0.0066	0.0140	0.0198	0.0264
Asturias	0.0014	0.0020	0.0048	0.0085	0.0103	0.0121
Canarias	0.0028	0.0032	0.0107	0.0217	0.0311	0.0400
Cantabria	0.0017	0.0026	0.0077	0.0154	0.0218	0.0282
Castilla.y.León	0.0012	0.0021	0.0059	0.0120	0.0166	0.0216
Castilla.La.Mancha	0.0007	0.0015	0.0035	0.0067	0.0082	0.0106
Cataluña	0.0009	0.0015	0.0024	0.0034	0.0021	0.0016
Ceuta	0.0044	0.0060	0.0190	0.0380	0.0566	0.0730
Comunidad.Valenciana	0.0002	0.0009	0.0016	0.0034	0.0033	0.0047
Extremadura	0.0011	0.0019	0.0051	0.0103	0.0138	0.0180
Galicia	0.0008	0.0015	0.0035	0.0067	0.0081	0.0104
Islas.Baleares	0.0006	0.0013	0.0031	0.0061	0.0073	0.0094
La.Rioja	0.0012	0.0022	0.0057	0.0109	0.0147	0.0187
Madrid	0.0020	0.0028	0.0091	0.0195	0.0285	0.0382
Melilla	0.0030	0.0038	0.0126	0.0261	0.0384	0.0503
Murcia	0.0005	0.0012	0.0026	0.0054	0.0064	0.0086
Navarra	0.0025	0.0036	0.0109	0.0216	0.0311	0.0395
País.Vasco	0.0022	0.0029	0.0093	0.0191	0.0275	0.0356

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

Tabla Ratio Incr. Confirmados: Mod. No Paramétrico.

Last=07/04/2021

	Last	H1	H4	H8	H12	H15
España	0.0013	0.0019	0.0073	0.0154	0.0242	0.0323
Andalucía	0.0019	0.0022	0.0084	0.0179	0.0281	0.0375
Aragón	0.0014	0.0017	0.0068	0.0143	0.0227	0.0304
Asturias	0.0014	0.0025	0.0091	0.0195	0.0302	0.0401
Canarias	0.0028	0.0039	0.0148	0.0303	0.0457	0.0598
Cantabria	0.0017	0.0023	0.0086	0.0183	0.0286	0.0382
Castilla.y.León	0.0012	0.0016	0.0063	0.0132	0.0211	0.0283
Castilla.La.Mancha	0.0007	0.0014	0.0054	0.0113	0.0181	0.0245
Cataluña	0.0009	0.0021	0.0077	0.0164	0.0256	0.0339
Ceuta	0.0044	0.0050	0.0193	0.0402	0.0619	0.0819
Comunidad.Valenciana	0.0002	0.0009	0.0037	0.0079	0.0129	0.0177
Extremadura	0.0011	0.0016	0.0061	0.0129	0.0206	0.0276
Galicia	0.0008	0.0014	0.0056	0.0118	0.0188	0.0253
Islas.Baleares	0.0006	0.0013	0.0050	0.0105	0.0168	0.0227
La.Rioja	0.0012	0.0017	0.0066	0.0140	0.0222	0.0297
Madrid	0.0020	0.0024	0.0091	0.0194	0.0303	0.0404
Melilla	0.0030	0.0038	0.0142	0.0298	0.0455	0.0604
Murcia	0.0005	0.0011	0.0044	0.0093	0.0151	0.0205
Navarra	0.0025	0.0034	0.0126	0.0267	0.0411	0.0548
País.Vasco	0.0022	0.0029	0.0107	0.0229	0.0355	0.0473

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

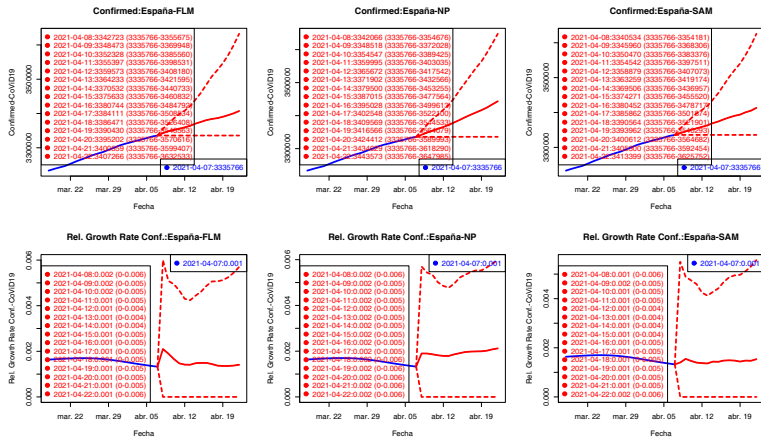
Tabla Ratio Incr. Confirmados: Mod. Aditivo.

Last=07/04/2021

	Last	H1	H4	H8	H12	H15
España	0.0013	0.0014	0.0056	0.0115	0.0174	0.0233
Andalucía	0.0019	0.0023	0.0087	0.0182	0.0281	0.0371
Aragón	0.0014	0.0017	0.0068	0.0146	0.0230	0.0316
Asturias	0.0014	0.0013	0.0043	0.0065	0.0079	0.0073
Canarias	0.0028	0.0028	0.0100	0.0194	0.0266	0.0319
Cantabria	0.0017	0.0020	0.0074	0.0148	0.0223	0.0293
Castilla.y.León	0.0012	0.0016	0.0061	0.0124	0.0197	0.0263
Castilla.La.Mancha	0.0007	0.0009	0.0035	0.0070	0.0111	0.0154
Cataluña	0.0009	0.0006	0.0020	0.0020	0.0014	0.0010
Ceuta	0.0044	0.0069	0.0209	0.0402	0.0630	0.0836
Comunidad.Valenciana	0.0002	0.0003	0.0019	0.0041	0.0080	0.0120
Extremadura	0.0011	0.0015	0.0053	0.0109	0.0171	0.0231
Galicia	0.0008	0.0009	0.0035	0.0070	0.0107	0.0148
Islas.Baleares	0.0006	0.0007	0.0030	0.0061	0.0099	0.0133
La.Rioja	0.0012	0.0015	0.0057	0.0109	0.0169	0.0223
Madrid	0.0020	0.0021	0.0087	0.0188	0.0290	0.0395
Melilla	0.0030	0.0033	0.0120	0.0243	0.0358	0.0460
Murcia	0.0005	0.0006	0.0029	0.0061	0.0105	0.0150
Navarra	0.0025	0.0031	0.0108	0.0199	0.0294	0.0359
País.Vasco	0.0022	0.0025	0.0090	0.0180	0.0264	0.0332

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

Confirmados: España

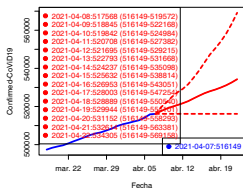


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

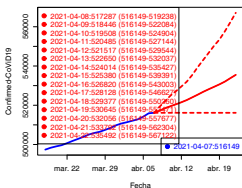
◀ Confirmados ▶ Fallecidos

Confirmados: Andalucía

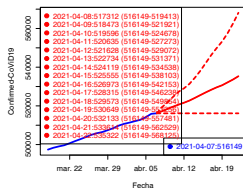
Confirmed:Andalucía-FLM



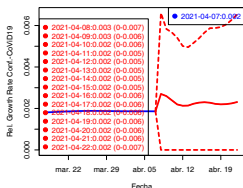
Confirmed:Andalucía-NP



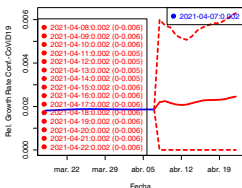
Confirmed:Andalucía-SAM



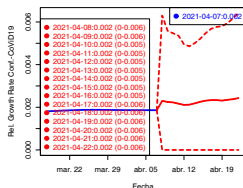
Rel. Growth Rate Conf.:Andalucía-FLM



Rel. Growth Rate Conf.:Andalucía-NP



Rel. Growth Rate Conf.:Andalucía-SAM

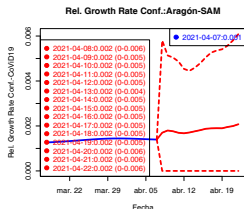
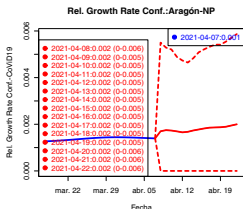
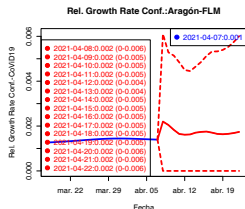
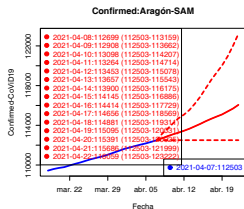
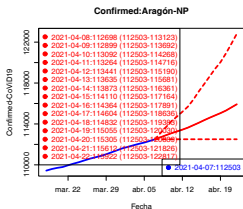
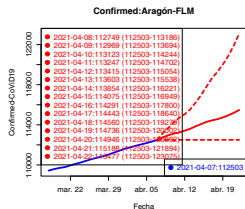


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

← Confirmados

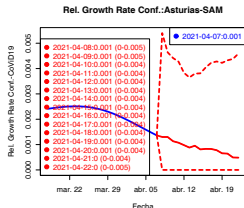
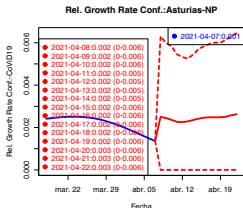
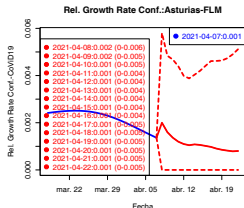
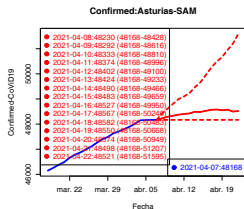
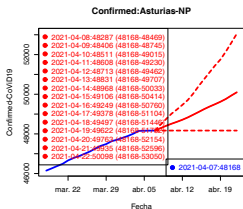
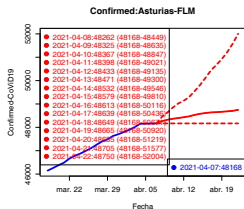
← Fallecidos

Confirmados: Aragón



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

Confirmados: Asturias

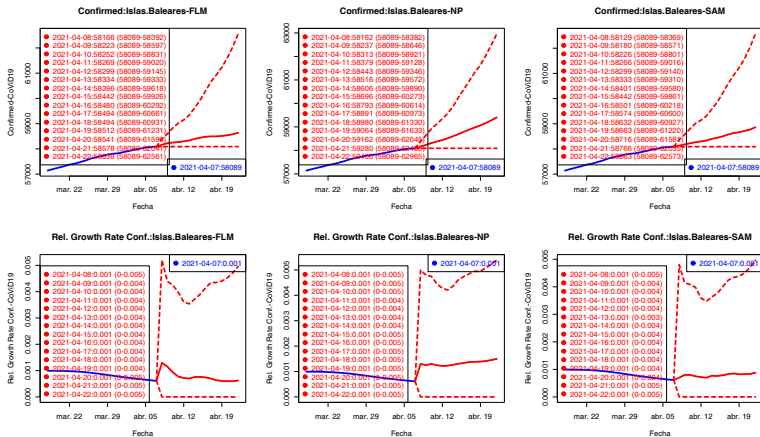


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

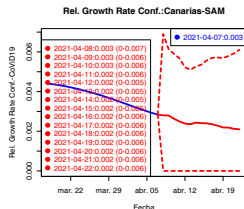
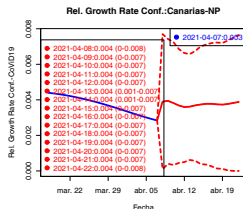
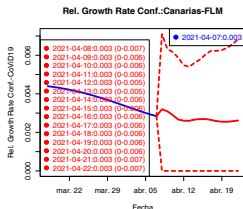
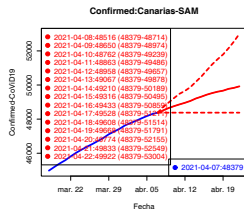
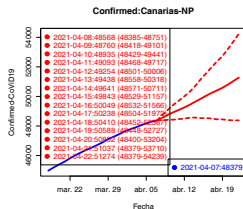
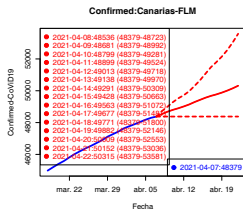
◀ Fallecidos

Confirmados: Islas Baleares



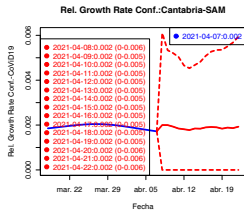
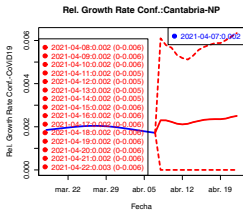
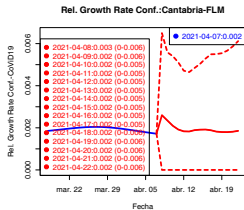
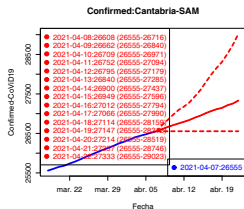
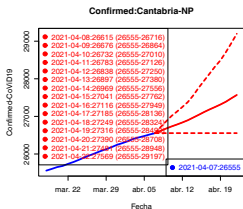
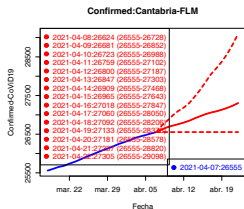
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

Confirmados: Canarias



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

Confirmados: Cantabria

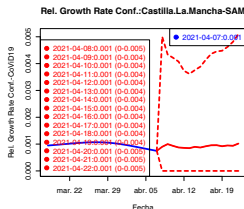
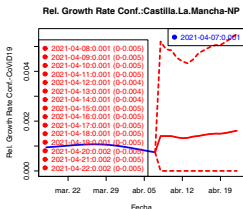
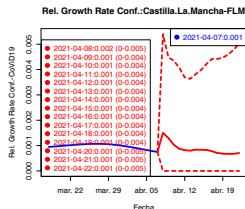
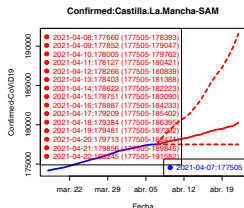
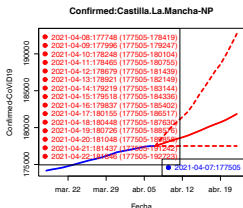
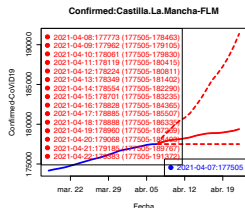


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Castilla-La Mancha



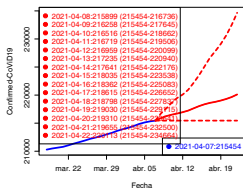
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

← Confirmados

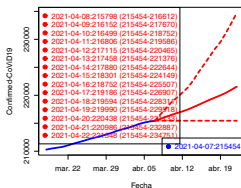
← Fallecidos

Confirmados: Castilla y León

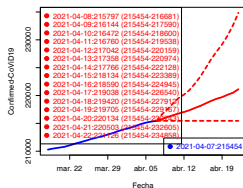
Confirmed:Castilla.yLeón-FLM



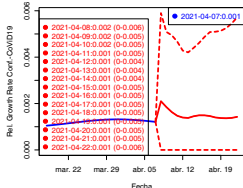
Confirmed:Castilla.yLeón-NP



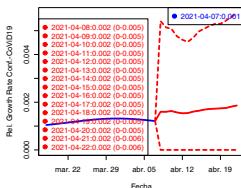
Confirmed:Castilla.yLeón-SAM



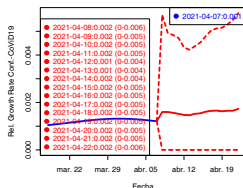
Rel. Growth Rate Conf.:Castilla.yLeón-FLM



Rel. Growth Rate Conf.:Castilla.yLeón-NP



Rel. Growth Rate Conf.:Castilla.yLeón-SAM

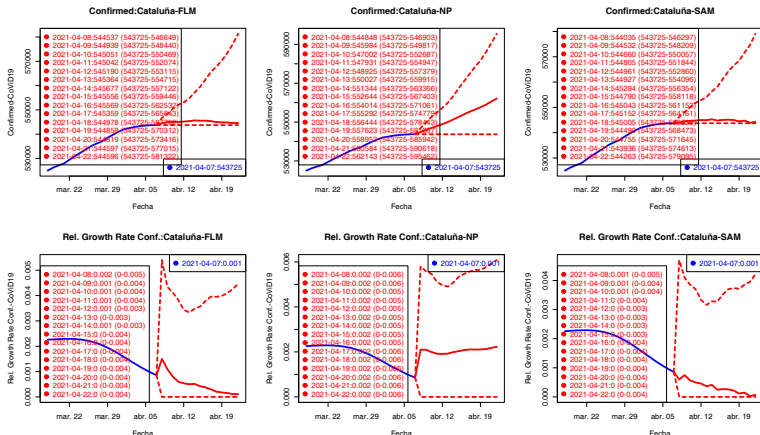


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

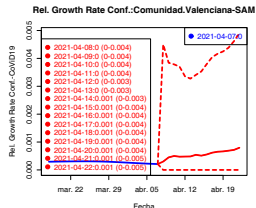
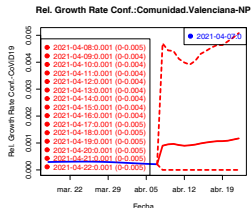
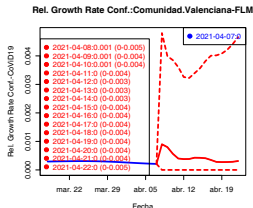
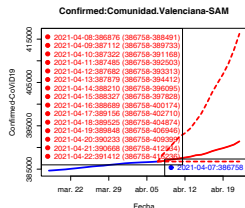
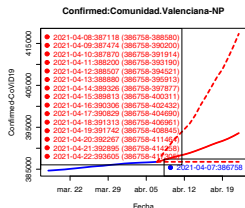
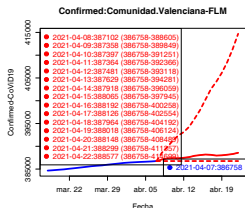
← Confirmados

← Fallecidos

Confirmados: Cataluña



Confirmados: C. Valenciana

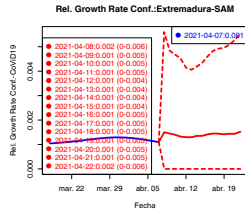
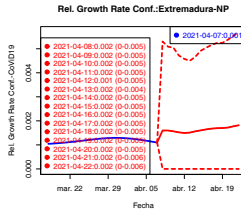
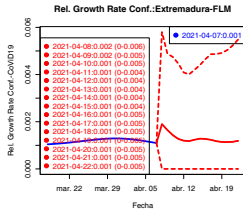
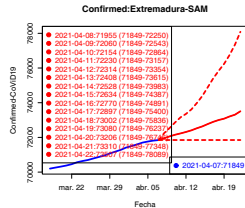
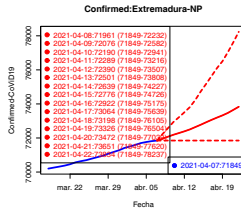
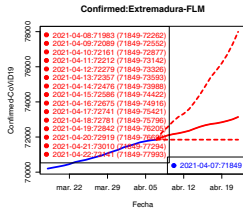


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

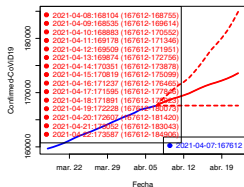
Confirmados: Extremadura



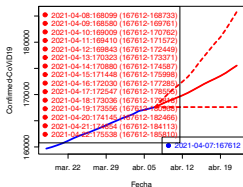
Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

Confirmados: País Vasco

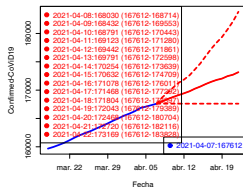
Confirmed:País.Vasco-FLM



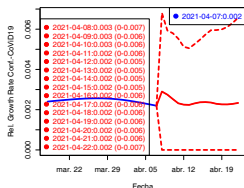
Confirmed:País.Vasco-NP



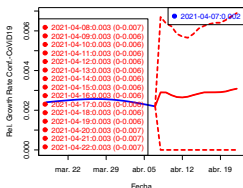
Confirmed:País.Vasco-SAM



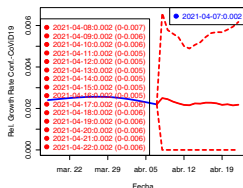
Rel. Growth Rate Conf.:País.Vasco-FLM



Rel. Growth Rate Conf.:País.Vasco-NP



Rel. Growth Rate Conf.:País.Vasco-SAM

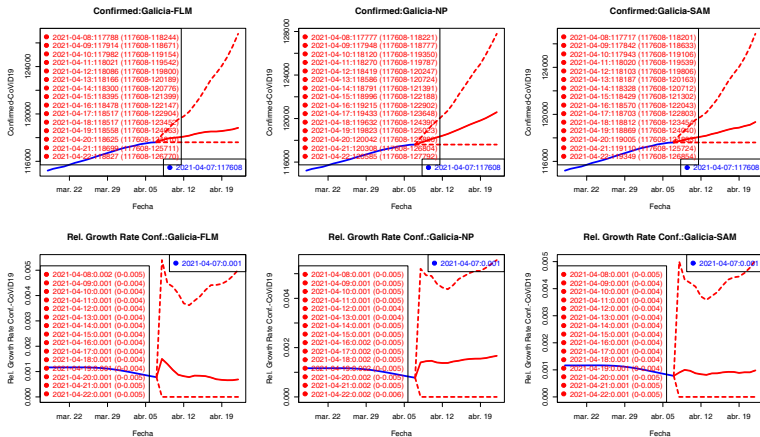


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

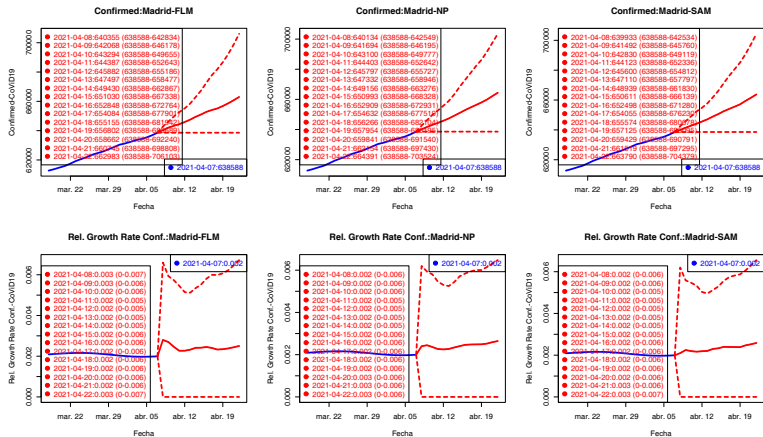
← Confirmados

← Fallecidos

Confirmados: Galicia



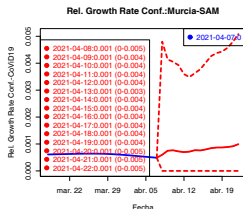
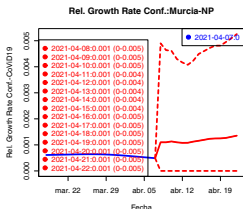
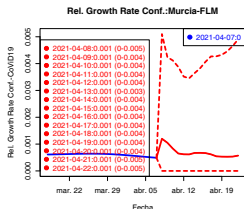
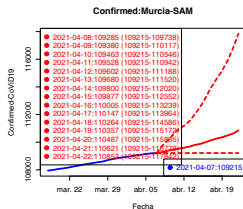
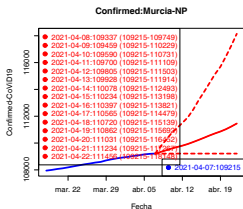
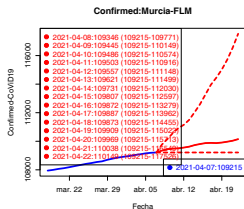
Confirmados: Madrid



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

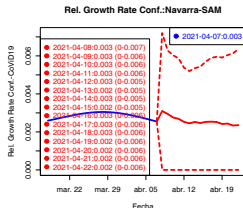
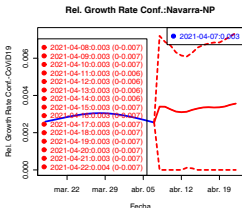
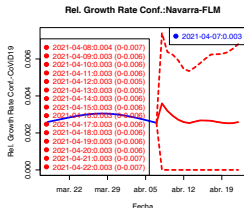
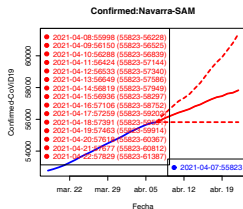
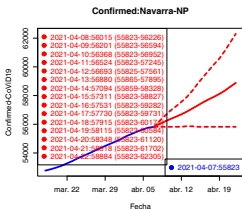
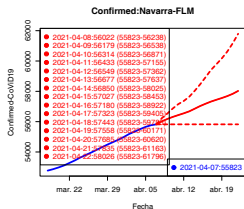
◀ Confirmados ▶ Fallecidos

Confirmados: Murcia



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

Confirmados: Navarra

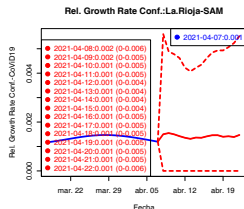
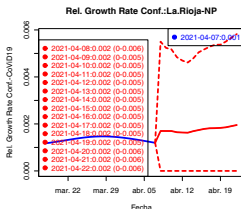
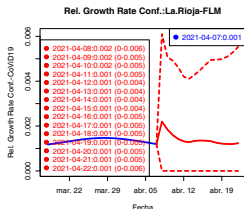
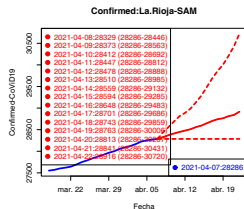
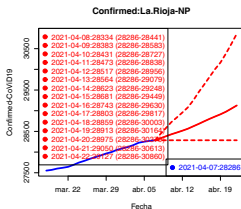
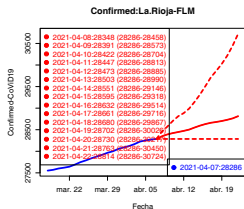


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ 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: 07/04/2021 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	0.005	0.005	0.001	0.001	0.001	0.555	0.618	0.559
H4	0.02	0.019	0.018	0.009	0.009	0.008	0.816	0.831	0.828
H8	0.068	0.072	0.063	0.037	0.041	0.032	0.856	0.853	0.867
H12	0.145	0.155	0.128	0.1	0.104	0.083	0.863	0.858	0.878
H15	0.226	0.251	0.191	0.175	0.215	0.132	0.873	0.863	0.892

Tabla Previsión Fallecidos: Mod. Lineal.

Last=07/04/2021

	Last	H1	H4	H8	H12	H15
España	75751	75802	75849	75961	75932	75869
Andalucía	9247	9256	9268	9289	9297	9298
Aragón	3348	3352	3359	3372	3379	3384
Asturias	1917	1920	1925	1935	1939	1942
Canarias	679	680	684	688	690	692
Cantabria	546	547	547	549	550	551
Castilla.y.León	6618	6623	6629	6643	6645	6645
Castilla.La.Mancha	5745	5747	5746	5748	5745	5745
Cataluña	13344	13344	13344	13344	13344	13344
Ceuta	99	100	101	103	105	106
Comunidad.Valenciana	7134	7136	7134	7134	7134	7134
Extremadura	1742	1743	1742	1742	1742	1742
Galicia	2345	2348	2353	2364	2368	2371
Islas.Baleares	779	779	779	779	779	779
La.Rioja	750	751	752	756	757	759
Madrid	14723	14737	14757	14797	14816	14826
Melilla	84	85	86	89	91	93
Murcia	1572	1573	1573	1574	1572	1572
Navarra	1125	1126	1127	1129	1130	1130
País.Vasco	3954	3956	3958	3962	3961	3959

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

Tabla Previsión Fallecidos: Mod. No Paramétrico.

Last=07/04/2021

	Last	H1	H4	H8	H12	H15
España	75751	75833	76127	76557	76976	77373
Andalucía	9247	9260	9301	9363	9424	9483
Aragón	3348	3352	3366	3388	3409	3429
Asturias	1917	1920	1929	1942	1955	1968
Canarias	679	681	687	696	704	712
Cantabria	546	547	549	552	555	558
Castilla.y.León	6618	6626	6652	6691	6729	6765
Castilla.La.Mancha	5745	5751	5771	5801	5830	5856
Cataluña	13344	13356	13402	13467	13529	13587
Ceuta	99	100	101	103	105	106
Comunidad.Valenciana	7134	7140	7165	7199	7232	7263
Extremadura	1742	1744	1749	1758	1766	1773
Galicia	2345	2348	2358	2374	2389	2404
Islas.Baleares	779	780	782	786	789	792
La.Rioja	750	751	754	758	763	767
Madrid	14723	14740	14800	14889	14976	15059
Melilla	84	84	85	87	89	90
Murcia	1572	1574	1580	1589	1598	1607
Navarra	1125	1126	1130	1136	1142	1148
País.Vasco	3954	3958	3971	3991	4010	4027

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

Tabla Previsión Fallecidos: Mod. Aditivo.

Last=07/04/2021

	Last	H1	H4	H8	H12	H15
España	75751	75779	75922	76095	76246	76374
Andalucía	9247	9254	9281	9322	9347	9381
Aragón	3348	3351	3361	3373	3389	3399
Asturias	1917	1919	1925	1935	1944	1950
Canarias	679	680	684	690	695	698
Cantabria	546	546	548	550	552	553
Castilla.y.León	6618	6622	6641	6661	6685	6708
Castilla.La.Mancha	5745	5746	5757	5767	5779	5790
Cataluña	13344	13344	13344	13344	13344	13344
Ceuta	99	100	101	103	105	107
Comunidad.Valenciana	7134	7134	7144	7149	7160	7169
Extremadura	1742	1742	1745	1745	1748	1749
Galicia	2345	2347	2356	2367	2380	2389
Islas.Baleares	779	779	779	779	779	779
La.Rioja	750	751	753	756	760	763
Madrid	14723	14733	14759	14810	14836	14863
Melilla	84	85	86	88	89	91
Murcia	1572	1573	1577	1583	1587	1591
Navarra	1125	1125	1128	1129	1131	1132
País.Vasco	3954	3954	3958	3957	3960	3958

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

Tabla Ratio Incr. Fallecidos: Mod. Lineal.

Last=07/04/2021

	Last	H1	H4	H8	H12	H15
España	0.0006	0.0007	0.0013	0.0028	0.0024	0.0016
Andalucía	0.0008	0.0009	0.0022	0.0046	0.0054	0.0056
Aragón	0.0010	0.0013	0.0034	0.0071	0.0094	0.0107
Asturias	0.0013	0.0014	0.0040	0.0093	0.0113	0.0132
Canarias	0.0024	0.0021	0.0068	0.0128	0.0167	0.0185
Cantabria	0.0008	0.0010	0.0025	0.0062	0.0075	0.0090
Castilla.y.León	0.0007	0.0008	0.0017	0.0038	0.0041	0.0040
Castilla.La.Mancha	0.0003	0.0004	0.0002	0.0006	0.0000	0.0000
Cataluña	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
Ceuta	0.0049	0.0053	0.0186	0.0380	0.0562	0.0706
Comunidad.Valenciana	0.0002	0.0003	0.0000	0.0000	0.0000	0.0000
Extremadura	0.0002	0.0003	0.0000	0.0000	0.0000	0.0000
Galicia	0.0012	0.0014	0.0035	0.0079	0.0099	0.0112
Islas.Baleares	0.0001	0.0003	0.0000	0.0000	0.0000	0.0000
La.Rioja	0.0009	0.0011	0.0030	0.0075	0.0093	0.0115
Madrid	0.0007	0.0010	0.0023	0.0050	0.0063	0.0070
Melilla	0.0059	0.0071	0.0235	0.0531	0.0793	0.1012
Murcia	0.0006	0.0007	0.0009	0.0013	0.0003	0.0000
Navarra	0.0005	0.0006	0.0016	0.0040	0.0043	0.0048
País.Vasco	0.0003	0.0004	0.0009	0.0021	0.0017	0.0014

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

Tabla Ratio Incr. Fallecidos: Mod. No Paramétrico.

Last=07 /04 /2021

	Last	H1	H4	H8	H12	H15
España	0.0006	0.0011	0.0050	0.0106	0.0162	0.0214
Andalucía	0.0008	0.0014	0.0058	0.0125	0.0191	0.0255
Aragón	0.0010	0.0013	0.0055	0.0119	0.0182	0.0242
Asturias	0.0013	0.0015	0.0060	0.0131	0.0200	0.0267
Canarias	0.0024	0.0034	0.0116	0.0252	0.0373	0.0489
Cantabria	0.0008	0.0011	0.0050	0.0108	0.0165	0.0219
Castilla.y.León	0.0007	0.0011	0.0051	0.0110	0.0167	0.0222
Castilla.La.Mancha	0.0003	0.0010	0.0046	0.0097	0.0147	0.0194
Cataluña	0.0001	0.0009	0.0043	0.0092	0.0138	0.0182
Ceuta	0.0049	0.0050	0.0178	0.0388	0.0571	0.0733
Comunidad.Valenciana	0.0002	0.0009	0.0043	0.0091	0.0137	0.0180
Extremadura	0.0002	0.0009	0.0043	0.0091	0.0136	0.0179
Galicia	0.0012	0.0013	0.0057	0.0124	0.0189	0.0252
Islas.Baleares	0.0001	0.0008	0.0041	0.0087	0.0130	0.0171
La.Rioja	0.0009	0.0011	0.0051	0.0110	0.0168	0.0223
Madrid	0.0007	0.0012	0.0052	0.0113	0.0172	0.0228
Melilla	0.0059	0.0048	0.0168	0.0382	0.0585	0.0761
Murcia	0.0006	0.0011	0.0051	0.0110	0.0168	0.0223
Navarra	0.0005	0.0010	0.0047	0.0101	0.0153	0.0202
País.Vasco	0.0003	0.0009	0.0044	0.0093	0.0141	0.0185

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

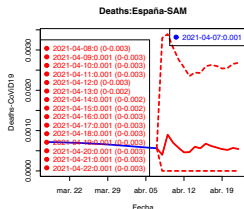
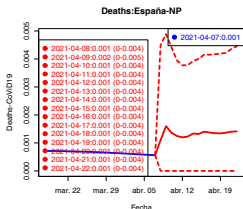
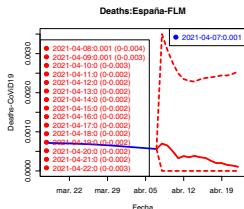
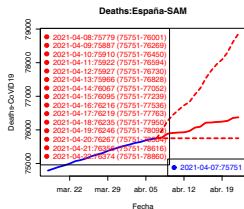
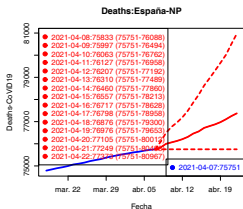
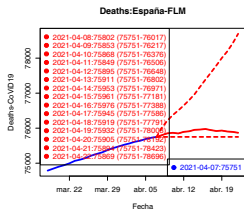
Tabla Ratio Incr. Fallecidos: Mod. Aditivo.

Last=07/04/2021

	Last	H1	H4	H8	H12	H15
España	0.0006	0.0004	0.0023	0.0045	0.0065	0.0082
Andalucía	0.0008	0.0008	0.0037	0.0081	0.0108	0.0145
Aragón	0.0010	0.0009	0.0040	0.0075	0.0122	0.0153
Asturias	0.0013	0.0011	0.0044	0.0095	0.0141	0.0174
Canarias	0.0024	0.0021	0.0081	0.0167	0.0231	0.0282
Cantabria	0.0008	0.0007	0.0032	0.0069	0.0102	0.0132
Castilla.y.León	0.0007	0.0005	0.0034	0.0064	0.0101	0.0136
Castilla.La.Mancha	0.0003	0.0001	0.0021	0.0038	0.0059	0.0079
Cataluña	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
Ceuta	0.0049	0.0053	0.0205	0.0390	0.0602	0.0761
Comunidad.Valenciana	0.0002	0.0000	0.0013	0.0021	0.0037	0.0049
Extremadura	0.0002	0.0000	0.0017	0.0017	0.0035	0.0042
Galicia	0.0012	0.0010	0.0045	0.0094	0.0148	0.0189
Islas.Baleares	0.0001	0.0000	0.0002	0.0000	0.0000	0.0000
La.Rioja	0.0009	0.0008	0.0039	0.0079	0.0130	0.0174
Madrid	0.0007	0.0007	0.0024	0.0059	0.0077	0.0095
Melilla	0.0059	0.0064	0.0186	0.0429	0.0639	0.0791
Murcia	0.0006	0.0004	0.0032	0.0068	0.0094	0.0121
Navarra	0.0005	0.0004	0.0023	0.0039	0.0055	0.0066
País.Vasco	0.0003	0.0001	0.0011	0.0007	0.0016	0.0010

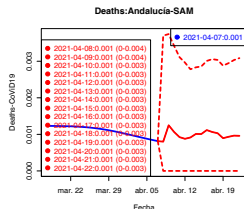
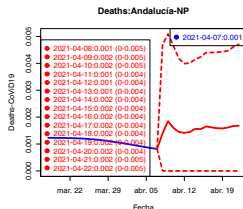
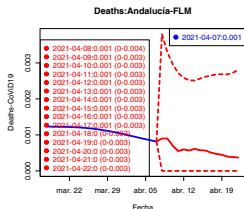
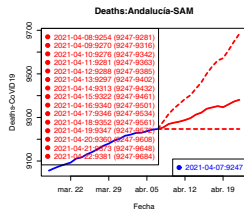
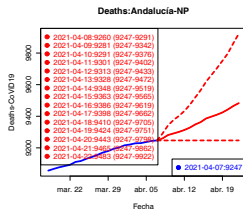
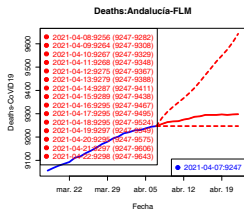
Cuadro: Previsión Ratio Incr. Fallecidos: Mod. Aditivo - Horizonte 1 – 5 días.

Fallecidos: España



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

Fallecidos: Andalucía

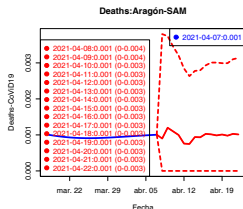
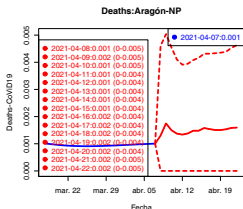
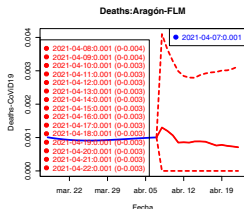
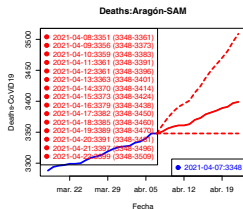
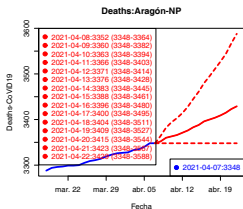
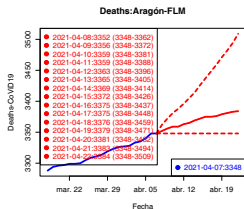


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

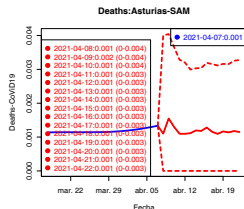
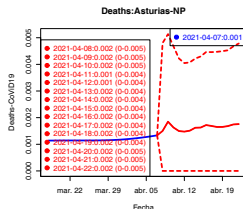
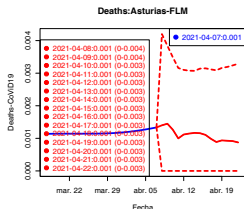
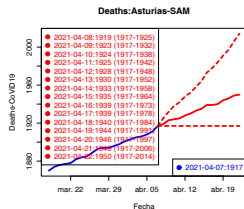
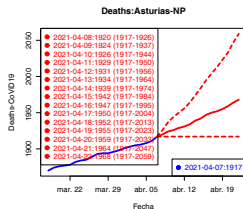
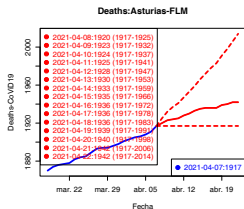
◀ Fallecidos

Fallecidos: Aragón



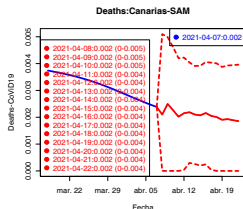
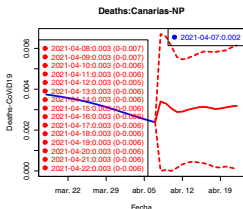
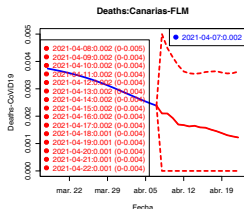
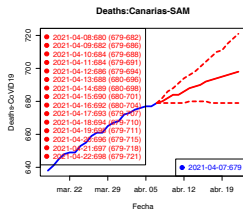
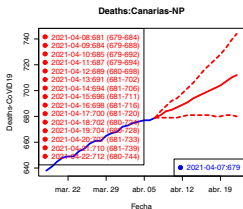
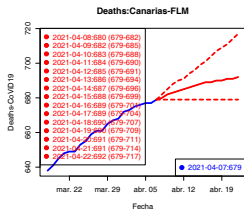
Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: Asturias



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

Fallecidos: Canarias

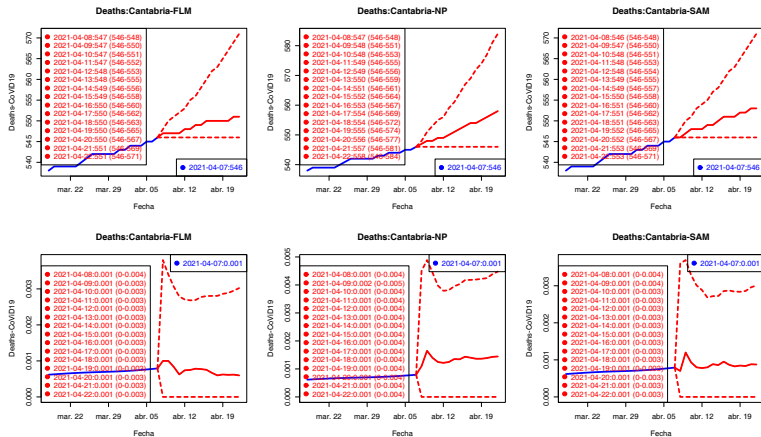


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Cantabria

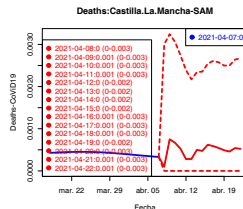
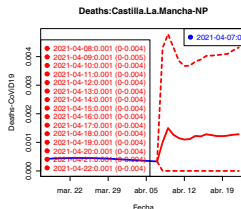
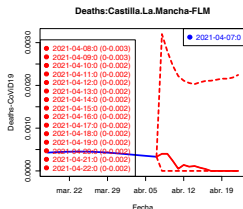
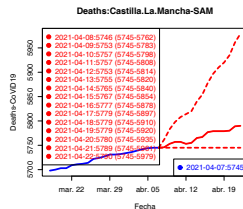
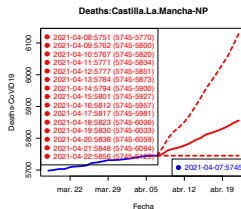
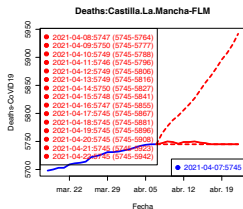


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

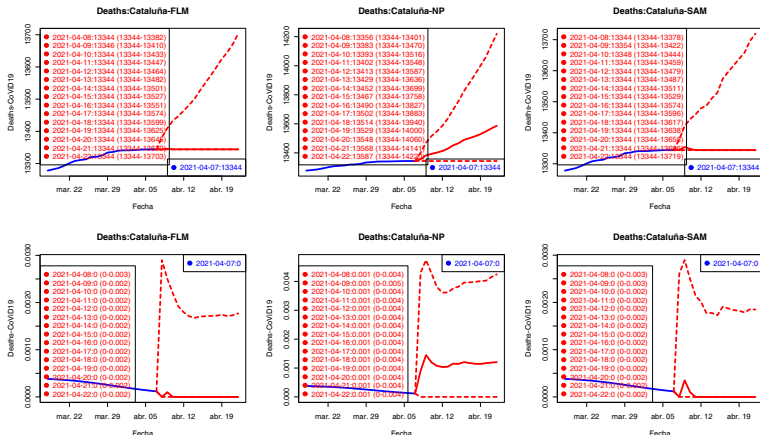
◀ Fallecidos

Fallecidos: Castilla-La Mancha



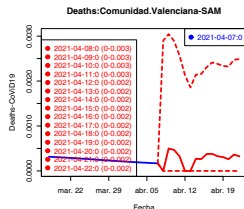
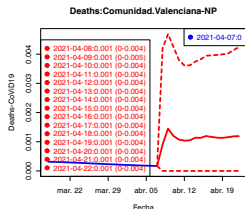
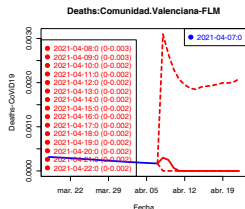
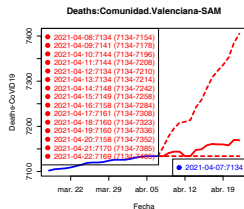
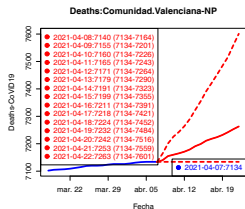
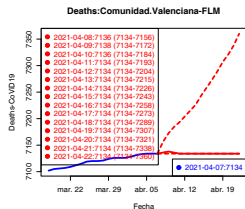
Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

Fallecidos: Cataluña



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

Fallecidos: C. Valenciana

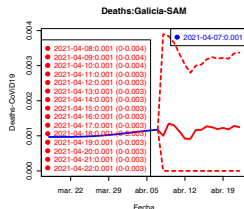
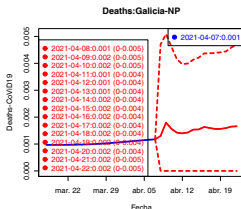
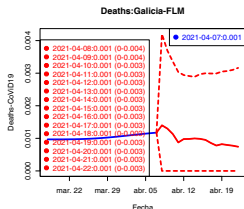
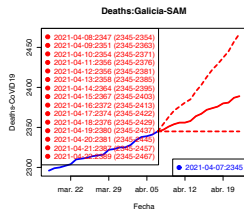
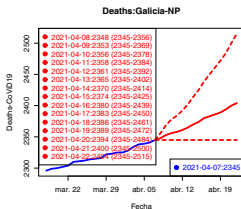
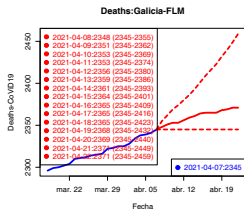


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Galicia

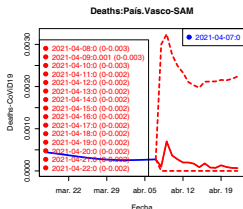
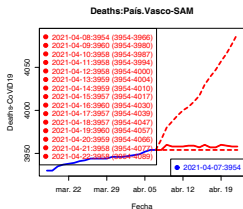


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

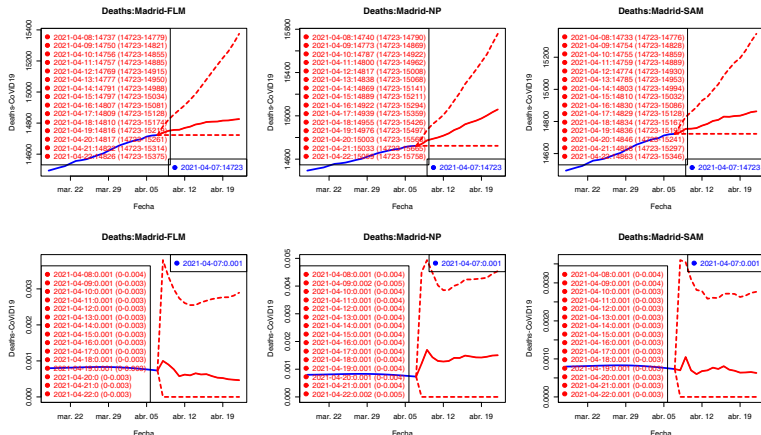
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Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados ▶ Fallecidos

Fallecidos: Madrid

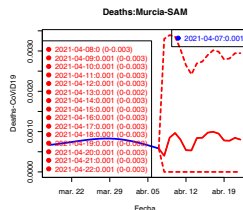
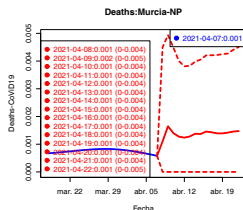
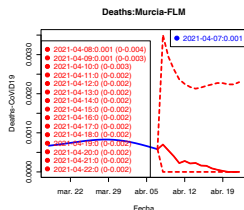
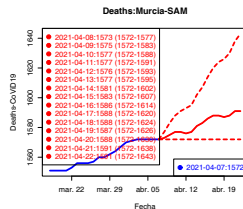
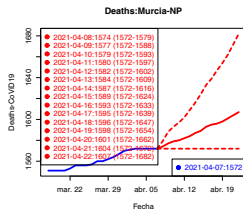
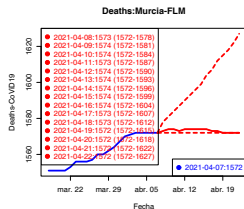


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Murcia

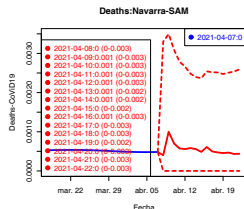
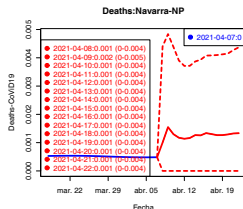
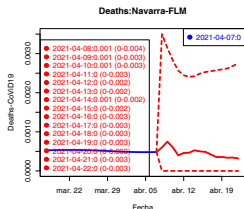
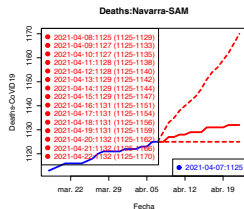
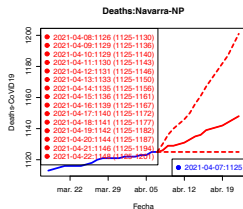
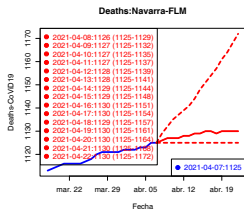


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Navarra

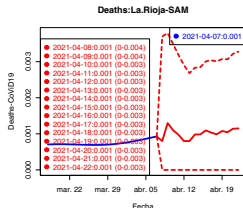
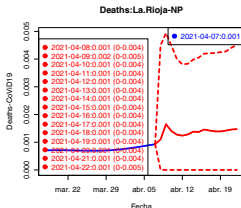
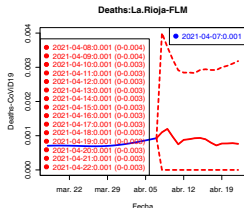
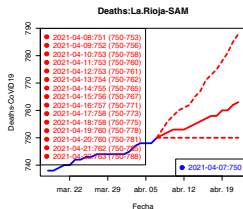
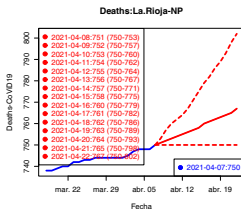
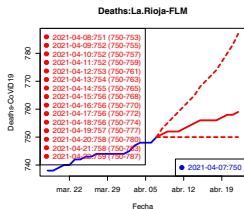


Los valores del Ratio de incremento de H2-H15 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: La Rioja

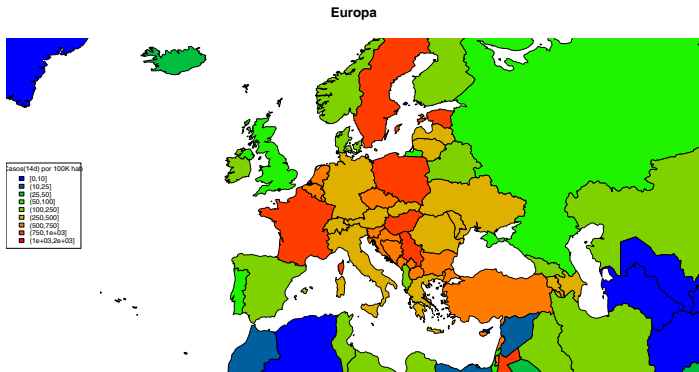


Los valores del Ratio de incremento de H2–H15 están rescalados a H1 para su comparación gráfica.

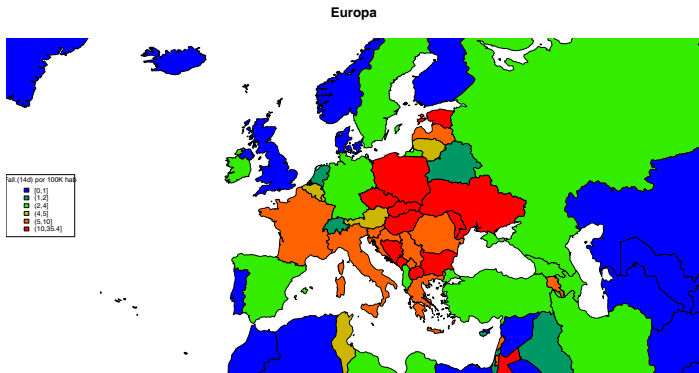
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- 3 Panorama internacional

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

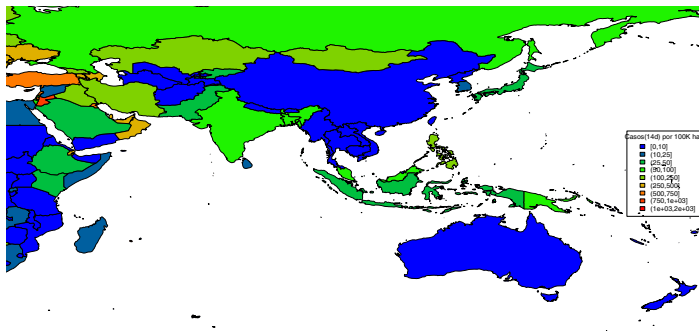


Europa: Fallecidos (14d) por 100K hab.



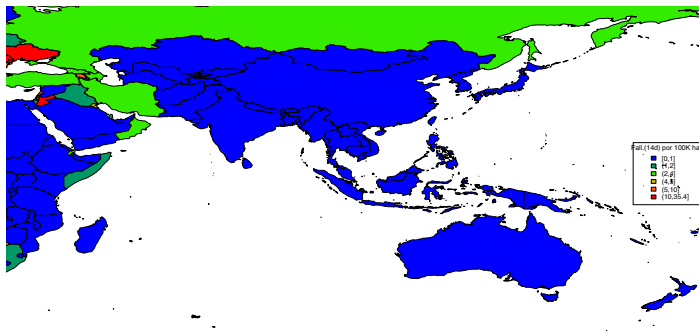
Asia y Oceanía: Incidencia acumulada (14d) por 100K hab.

Asia y Oceanía



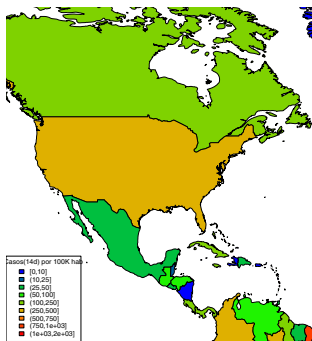
Asia y Oceanía: Fallecidos (14d) por 100K hab.

Asia y Oceanía

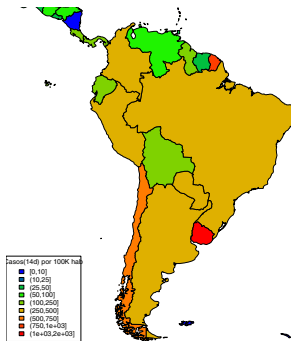


América: Incidencia acumulada (14d) por 100K hab.

América del Norte

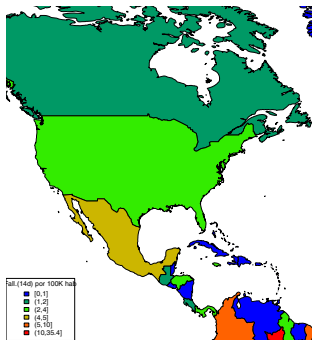


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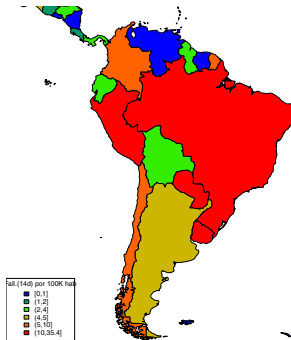


América: Fallecidos (14d) por 100K hab.

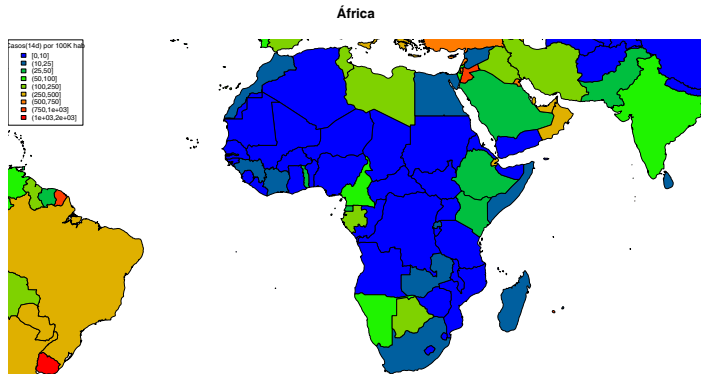
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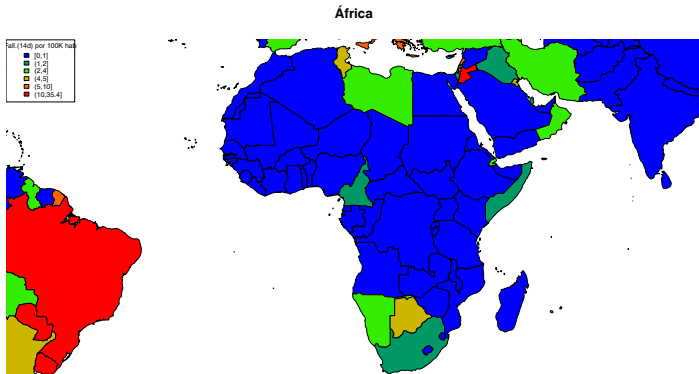
América del sur



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.