

Predicciones sobre CoViD-19

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DEPARTAMENTO DE ESTATÍSTICA,
ANÁLISE MATEMÁTICA E OPTIMIZACIÓN



- Predicciones

- Predicciones Fallecidos

3 Panorama internacional

Datos

Aplicación Shiny disponible en

<http://modestya.securized.net/covid19prediction/>

Último dato Confirmados CCAA: 08/02/2021

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

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	0.008	0	0	0	0	0	0.683	0.747	0.693
H2	0	0	0	0	0	0	0.685	0.827	0.706
H3	0.1	0	0	0	0	0	0.772	0.852	0.785
H4	0.1	0.1	0.1	0.1	0.1	0.1	0.812	0.866	0.822
H5	0.1	0.1	0.1	0.1	0.1	0.093	0.814	0.855	0.822

Último dato fichero: 08/02/2021. Los datos del último día pueden no estar actualizados

Tabla Previsión Confirmados: Mod. Lineal.

Last=08/02/2021

	Last	IA14	IA7	H1	H2	H3	H4	H5
España	3005523	498	160	3016375	3026429	3034802	3042272	3047307
Andalucía	445814	608	212	448395	450955	453104	454974	456337
Aragón	102127	458	157	102423	102702	102959	103207	103400
Asturias	40166	418	120	40290	40390	40503	40607	40656
Canarias	54249	119	45	54376	54476	54568	54646	54690
Cantabria	37348	210	62	37495	37639	37772	37902	38013
Castilla.y.León	23431	671	196	23485	23534	23577	23616	23640
Castilla.La.Mancha	161667	543	143	162084	162414	162654	162840	162878
Cataluña	198121	366	134	198776	199330	199821	200262	200524
Ceuta	534073	449	185	535720	537348	538691	539968	541016
Comunidad.Valenciana	4247	720	184	4271	4295	4317	4337	4354
Extremadura	352672	368	98	353884	354777	355430	355895	355896
Galicia	67552	400	102	67731	67880	67987	68069	68096
Islas.Baleares	104770	222	76	105081	105297	105500	105666	105689
La.Rioja	549930	554	145	552095	554257	555985	557579	558842
Madrid	6455	605	214	6481	6506	6526	6544	6557
Melilla	103447	583	189	103696	103877	104017	104127	104152
Murcia	50038	394	106	50160	50276	50379	50480	50562
Navarra	142493	332	113	142978	143460	143917	144361	144723
País.Vasco	26923	428	159	26985	27033	27069	27098	27101

Cuadro: Previsión Confirmados: Mod. Lineal - Horizonte 1 – 5 días.

Tabla Ratio Incr. Confirmados: Mod. Lineal.

Last=08/02/2021

	Last	H1	H2	H3	H4	H5
España	0.0040	0.0040	0.0070	0.0100	0.0120	0.0140
Andalucía	0.0070	0.0060	0.0120	0.0160	0.0210	0.0240
Aragón	0.0030	0.0030	0.0060	0.0080	0.0110	0.0120
Asturias	0.0060	0.0030	0.0060	0.0080	0.0110	0.0120
Islas Baleares	0.0030	0.0020	0.0040	0.0060	0.0070	0.0080
Canarias	0.0040	0.0040	0.0080	0.0110	0.0150	0.0180
Cantabria	0.0030	0.0020	0.0040	0.0060	0.0080	0.0090
Castilla.La.Mancha	0.0040	0.0030	0.0050	0.0060	0.0070	0.0070
Castilla.y.León	0.0050	0.0030	0.0060	0.0090	0.0110	0.0120
Cataluña	0.0030	0.0030	0.0060	0.0090	0.0110	0.0130
Ceuta	0.0060	0.0060	0.0110	0.0160	0.0210	0.0250
Comunidad.Valenciana	0.0050	0.0030	0.0060	0.0080	0.0090	0.0090
Extremadura	0.0030	0.0030	0.0050	0.0060	0.0080	0.0080
Galicia	0.0060	0.0030	0.0050	0.0070	0.0090	0.0090
Madrid	0.0040	0.0040	0.0080	0.0110	0.0140	0.0160
Melilla	0.0050	0.0040	0.0080	0.0110	0.0140	0.0160
Murcia	0.0030	0.0020	0.0040	0.0060	0.0070	0.0070
Navarra	0.0030	0.0020	0.0050	0.0070	0.0090	0.0100
País.Vasco	0.0040	0.0030	0.0070	0.0100	0.0130	0.0160
La.Rioja	0.0030	0.0020	0.0040	0.0050	0.0060	0.0070

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

Tabla Ratio Incr. Confirmados: Mod. No Paramétrico.

Last=08/02/2021

	Last	H1	H2	H3	H4	H5
España	0.004	0.006	0.012	0.018	0.024	0.030
Andalucía	0.007	0.008	0.015	0.023	0.030	0.038
Aragón	0.003	0.005	0.010	0.014	0.019	0.024
Asturias	0.006	0.008	0.015	0.023	0.030	0.037
Islas.Baleares	0.003	0.005	0.009	0.013	0.018	0.022
Canarias	0.004	0.005	0.011	0.016	0.021	0.027
Cantabria	0.003	0.005	0.009	0.013	0.018	0.022
Castilla.La.Mancha	0.004	0.006	0.011	0.017	0.022	0.027
Castilla.y.León	0.005	0.006	0.013	0.019	0.025	0.031
Cataluña	0.003	0.004	0.009	0.013	0.017	0.022
Ceuta	0.006	0.007	0.013	0.020	0.026	0.033
Comunidad.Valenciana	0.005	0.006	0.012	0.021	0.027	0.033
Extremadura	0.003	0.005	0.010	0.015	0.020	0.025
Galicia	0.006	0.007	0.013	0.021	0.028	0.035
Madrid	0.004	0.006	0.011	0.017	0.023	0.028
Melilla	0.005	0.006	0.012	0.018	0.024	0.030
Murcia	0.003	0.005	0.010	0.015	0.020	0.025
Navarra	0.003	0.004	0.008	0.011	0.015	0.019
País.Vasco	0.004	0.005	0.010	0.015	0.020	0.025
La.Rioja	0.003	0.006	0.011	0.016	0.022	0.026

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

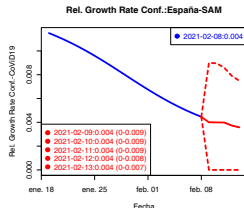
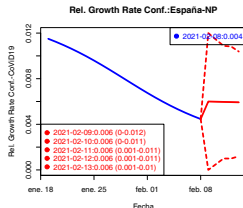
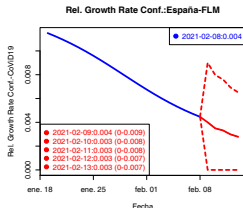
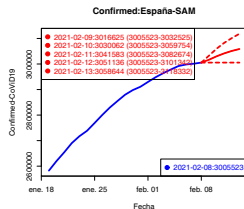
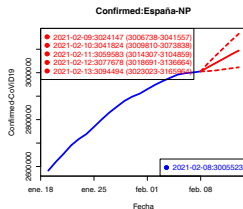
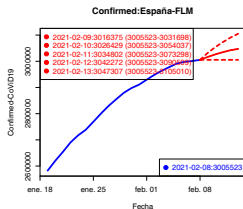
Tabla Ratio Incr. Confirmados: Mod. Aditivo.

Last=08/02/2021

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

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

Confirmados: España



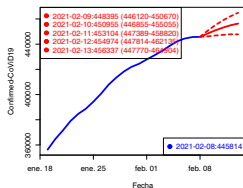
Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

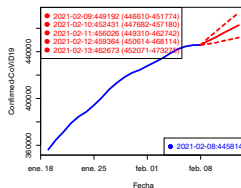
◀ Fallecidos

Confirmados: Andalucía

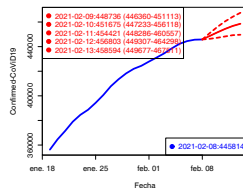
Confirmed:Andalucía-FLM



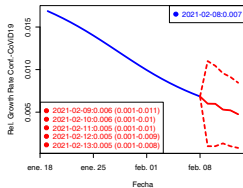
Confirmed:Andalucía-NP



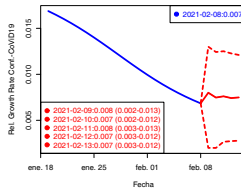
Confirmed:Andalucía-SAM



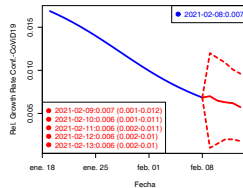
Rel. Growth Rate Conf.:Andalucía-FLM



Rel. Growth Rate Conf.:Andalucía-NP



Rel. Growth Rate Conf.:Andalucía-SAM

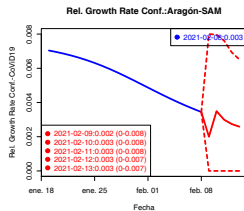
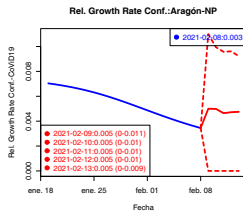
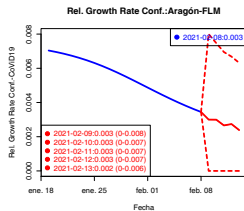
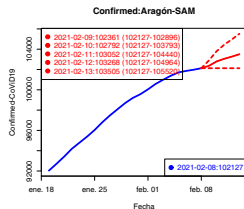
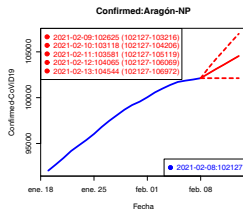
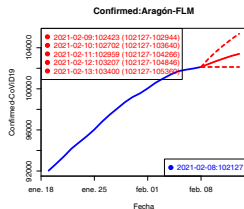


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Aragón

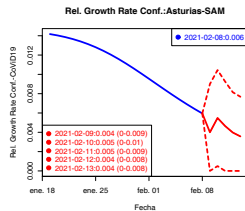
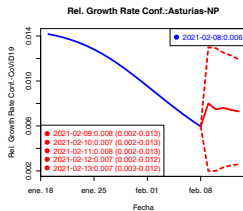
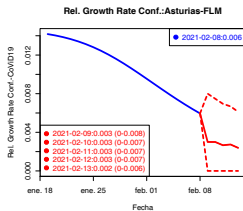
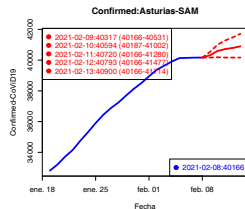
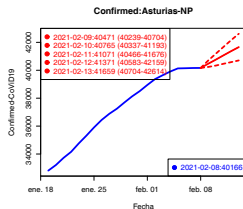
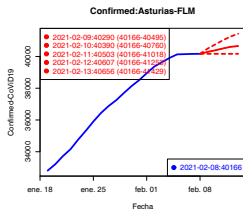


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Asturias

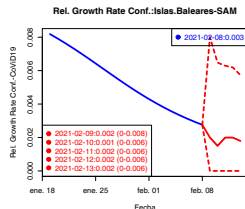
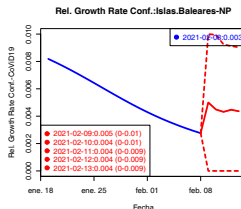
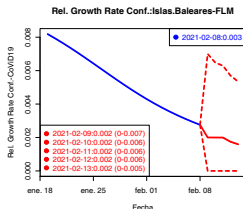
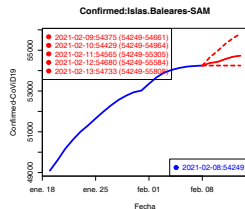
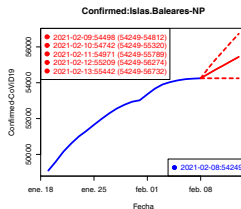
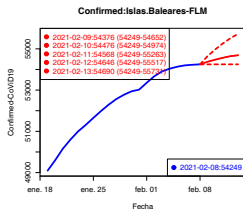


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Islas Baleares



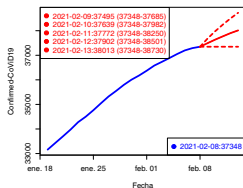
Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

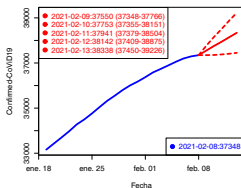
◀ Fallecidos

Confirmados: Canarias

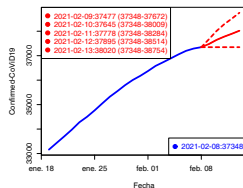
Confirmed:Canarias-FLM



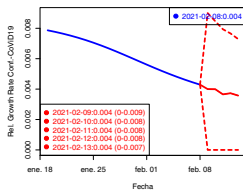
Confirmed:Canarias-NP



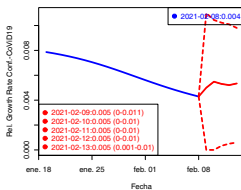
Confirmed:Canarias-SAM



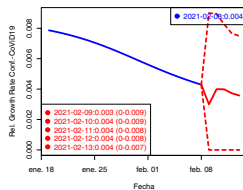
Rel. Growth Rate Conf.:Canarias-FLM



Rel. Growth Rate Conf.:Canarias-NP



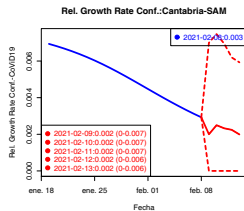
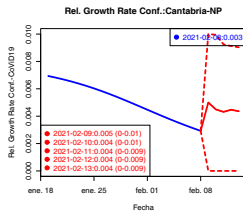
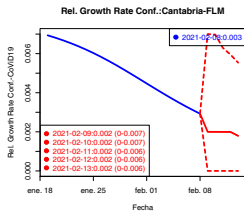
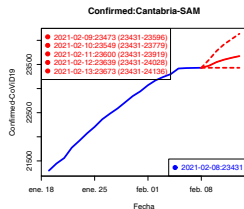
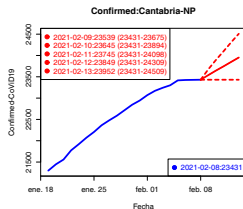
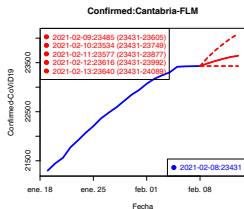
Rel. Growth Rate Conf.:Canarias-SAM



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

[← Confirmados](#)
[← Fallecidos](#)

Confirmados: Cantabria

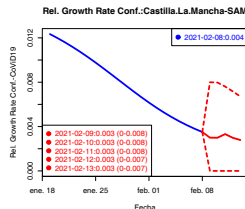
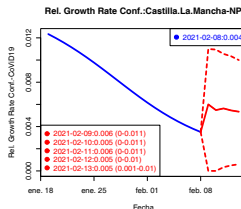
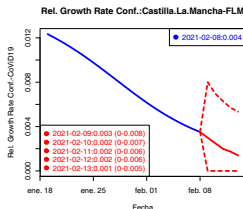
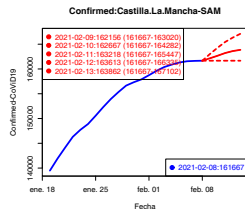
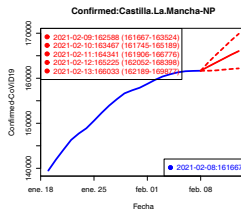
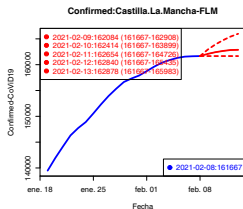


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Castilla-La Mancha



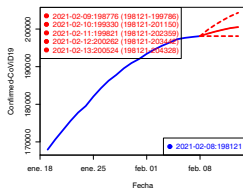
Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

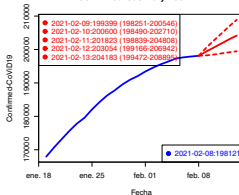
◀ Fallecidos

Confirmados: Castilla y León

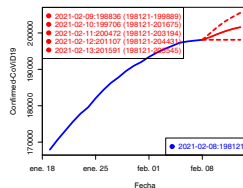
Confirmed:Castilla.y.León-FLM



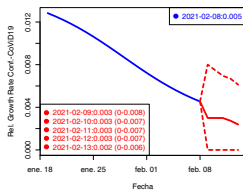
Confirmed:Castilla.y.León-NP



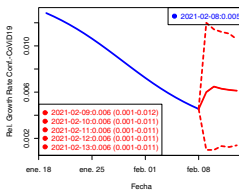
Confirmed:Castilla.y.León-SAM



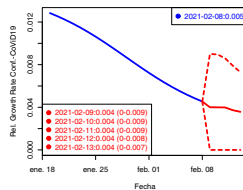
Rel. Growth Rate Conf.:Castilla.y.León-FLM



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



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

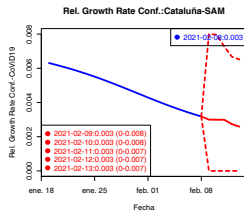
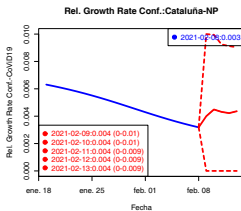
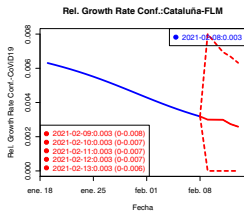
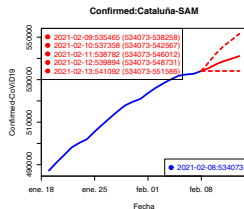
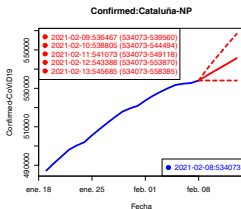
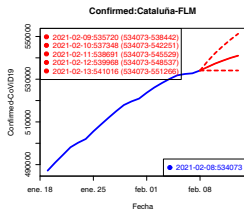


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Cataluña

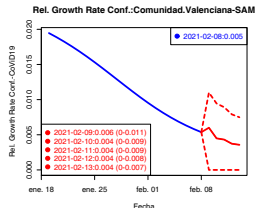
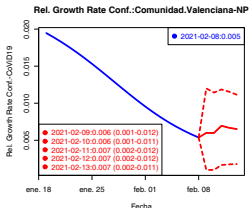
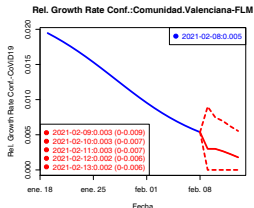
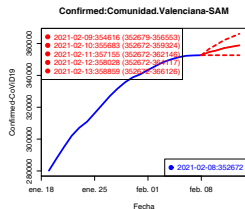
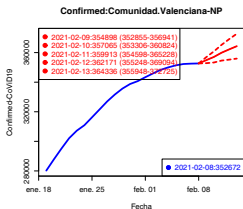
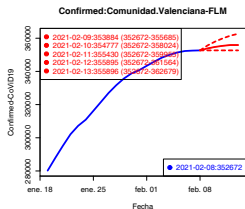


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: C. Valenciana

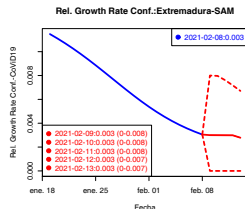
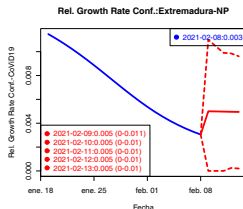
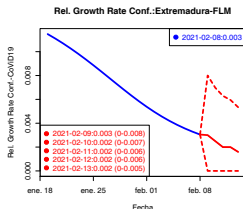
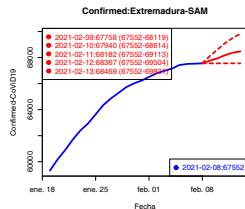
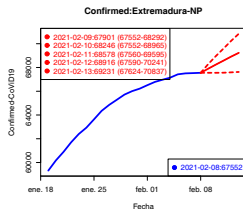
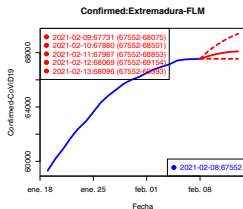


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Extremadura



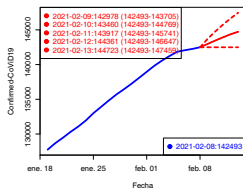
Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

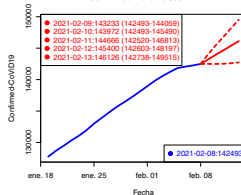
◀ Fallecidos

Confirmados: País Vasco

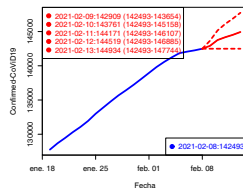
Confirmed:País.Vasco-FLM



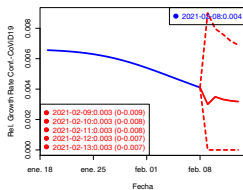
Confirmed:País.Vasco-NP



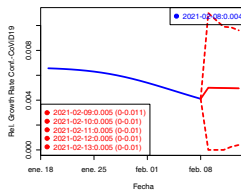
Confirmed:País.Vasco-SAM



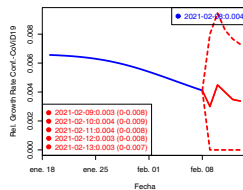
Rel. Growth Rate Conf.:País.Vasco-FLM



Rel. Growth Rate Conf.:País.Vasco-NP



Rel. Growth Rate Conf.:País.Vasco-SAM



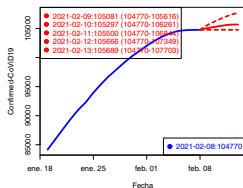
Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

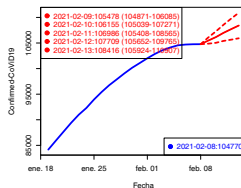
◀ Fallecidos

Confirmados: Galicia

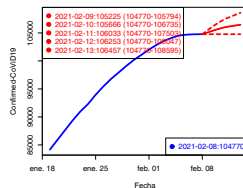
Confirmed:Galicia-FLM



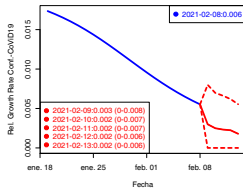
Confirmed:Galicia-NP



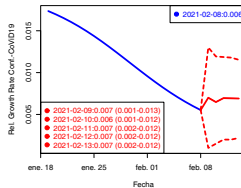
Confirmed:Galicia-SAM



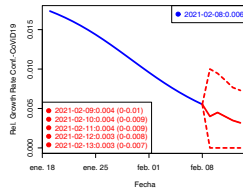
Rel. Growth Rate Conf.:Galicia-FLM



Rel. Growth Rate Conf.:Galicia-NP



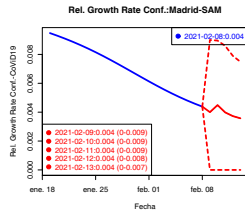
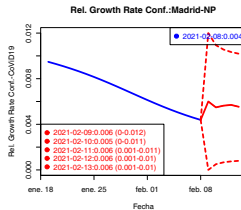
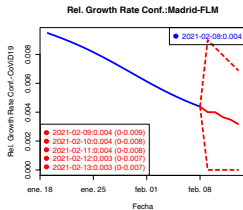
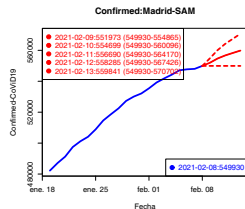
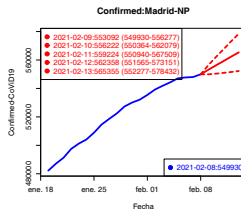
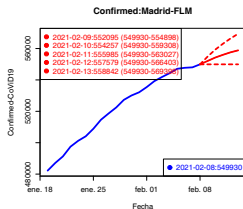
Rel. Growth Rate Conf.:Galicia-SAM



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

[← Confirmados](#)
[← Fallecidos](#)

Confirmados: Madrid

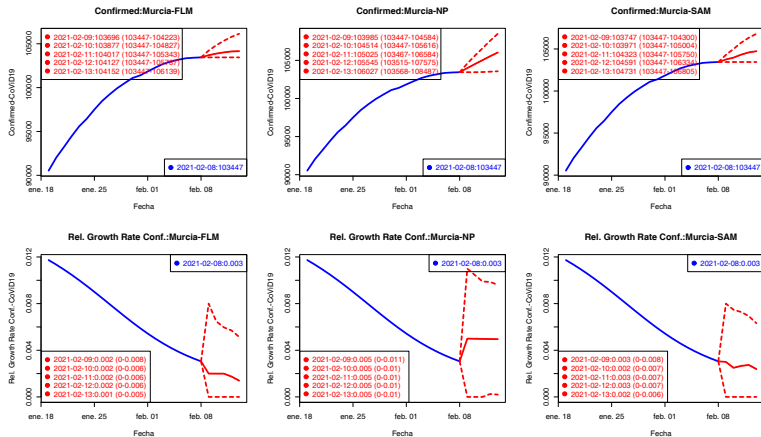


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Murcia

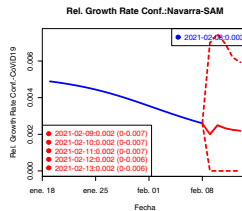
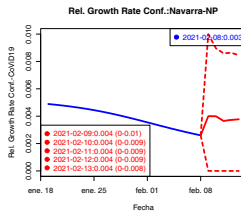
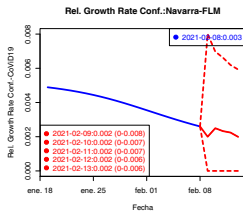
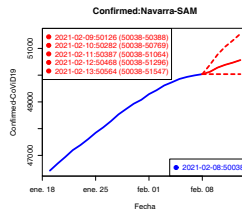
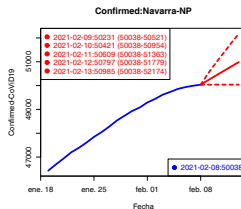
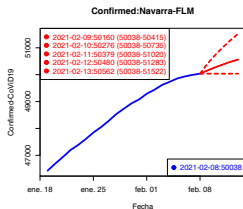


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: Navarra

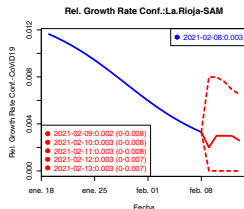
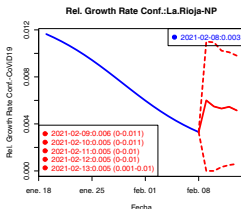
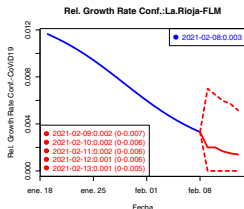
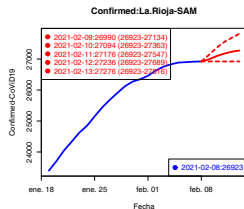
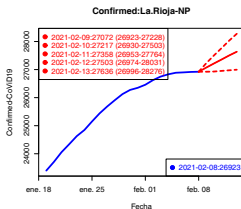
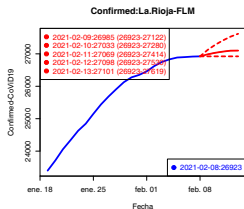


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Confirmados: La Rioja



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

◀ Confirmados

◀ Fallecidos

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Modelos para fallecidos por CoViD-19

Último dato: **08/02/2021** Fuente: https://cnecovid.isciii.es/covid19/resources/casos_hosp_uci_def_sexo_edad_provres.csv

Predicciones:

▶ España

▶ Andalucía

▶ Aragón

▶ Asturias

▶ I. Baleares

▶ Canarias

▶ Cantabria

▶ Castilla-La Mancha

▶ Castilla y León

▶ Cataluña

▶ C. Valenciana

▶ Extremadura

▶ País Vasco

▶ Galicia

▶ Madrid

▶ Murcia

▶ Navarra

▶ La Rioja

▶ Mod Lineal

▶ Mod NP

▶ Mod Aditivo

	$10^2 \sigma_R^2$			$10^2 \sigma_R^2(rob.)$			r^2		
Horiz	FLM	NP	SAM	FLM	NP	SAM	FLM	NP	SAM
H1	0	0.004	0	0	0	0	0.656	0.632	0.675
H2	0	0	0	0	0	0	0.708	0.674	0.722
H3	0	0.034	0.03	0	0.014	0	0.667	0.637	0.676
H4	0.035	0.041	0	0	0	0	0.762	0.725	0.768
H5	0	0.1	0	0	0	0	0.797	0.756	0.803

Tabla Previsión Fallecidos: Mod. Lineal.

Last=08/02/2021

	Last	H1	H2	H3	H4	H5
España	62687	62946	63181	63467	63662	63826
Andalucía	6986	7026	7061	7103	7135	7161
Aragón	3056	3069	3083	3098	3109	3120
Asturias	1613	1621	1629	1638	1645	1651
Islas. Baleares	637	639	641	644	645	646
Canarias	540	542	543	545	546	548
Cantabria	480	482	483	485	486	487
Castilla. La. Mancha	5175	5199	5221	5248	5265	5280
Castilla. y. León	5867	5889	5909	5936	5953	5967
Cataluña	9494	9511	9524	9539	9546	9551
Ceuta	75	75	76	76	76	77
Comunidad. Valenciana	5531	5577	5618	5668	5706	5737
Extremadura	1586	1597	1607	1618	1627	1636
Galicia	1973	1993	2014	2040	2059	2078
Madrid	13059	13082	13098	13119	13127	13127
Melilla	58	59	59	60	61	62
Murcia	1256	1266	1276	1288	1297	1304
Navarra	1066	1069	1071	1074	1077	1080
País. Vasco	3551	3564	3576	3590	3600	3610
La. Rioja	684	687	691	695	698	701

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

Tabla Previsión Fallecidos: Mod. Aditivo.

Last=08/02/2021

	Last	H1	H2	H3	H4	H5
España	62687	62910	63075	63687	63643	63796
Andalucía	6986	7019	7059	7100	7127	7150
Aragón	3056	3068	3077	3101	3108	3120
Asturias	1613	1620	1628	1642	1643	1648
Islas.Baleares	637	639	641	647	646	647
Canarias	540	542	542	546	546	548
Cantabria	480	482	482	486	486	487
Castilla.La.Mancha	5175	5195	5214	5266	5262	5275
Castilla.y.León	5867	5881	5897	5947	5941	5955
Cataluña	9494	9503	9505	9535	9536	9538
Ceuta	75	75	76	76	77	77
Comunidad.Valenciana	5531	5587	5636	5703	5718	5745
Extremadura	1586	1594	1606	1615	1626	1635
Galicia	1973	1990	2013	2031	2053	2067
Madrid	13059	13065	13064	13132	13112	13106
Melilla	58	59	59	60	61	62
Murcia	1256	1268	1278	1298	1304	1312
Navarra	1066	1069	1070	1075	1078	1081
País.Vasco	3551	3565	3574	3599	3604	3613
La.Rioja	684	686	688	695	696	698

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

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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	Last	H1	H2	H3	H4	H5
España	0.004	0.004	0.008	0.012	0.016	0.018
Andalucía	0.007	0.006	0.011	0.017	0.021	0.025
Aragón	0.004	0.004	0.009	0.014	0.017	0.021
Asturias	0.005	0.005	0.010	0.016	0.020	0.023
Islas Baleares	0.004	0.003	0.007	0.011	0.013	0.015
Canarias	0.004	0.003	0.006	0.009	0.012	0.014
Cantabria	0.004	0.004	0.007	0.010	0.013	0.015
Castilla.La.Mancha	0.005	0.005	0.009	0.014	0.017	0.020
Castilla.y.León	0.004	0.004	0.007	0.012	0.015	0.017
Cataluña	0.001	0.002	0.003	0.005	0.006	0.006
Ceuta	0.005	0.004	0.007	0.015	0.020	0.024
Comunidad.Valenciana	0.011	0.008	0.016	0.025	0.032	0.037
Extremadura	0.009	0.007	0.013	0.020	0.026	0.031
Galicia	0.012	0.010	0.021	0.034	0.044	0.053
Madrid	0.001	0.002	0.003	0.005	0.005	0.005
Melilla	0.013	0.012	0.024	0.038	0.051	0.067
Murcia	0.012	0.008	0.016	0.026	0.033	0.039
Navarra	0.003	0.003	0.005	0.008	0.010	0.014
País.Vasco	0.004	0.004	0.007	0.011	0.014	0.017
La.Rioja	0.005	0.005	0.010	0.016	0.020	0.025

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

Tabla Ratio Incr. Fallecidos: Mod. No Paramétrico.

Last=08/02/2021

	Last	H1	H2	H3	H4	H5
España	0.004	0.005	0.011	0.016	0.021	0.027
Andalucía	0.007	0.008	0.015	0.023	0.030	0.037
Aragón	0.004	0.005	0.009	0.014	0.018	0.023
Asturias	0.005	0.005	0.010	0.016	0.021	0.026
Islas.Baleares	0.004	0.005	0.011	0.017	0.022	0.027
Canarias	0.004	0.005	0.010	0.016	0.021	0.026
Cantabria	0.004	0.005	0.009	0.014	0.019	0.023
Castilla.La.Mancha	0.005	0.006	0.012	0.018	0.023	0.029
Castilla.y.León	0.004	0.004	0.008	0.013	0.017	0.021
Cataluña	0.001	0.003	0.005	0.008	0.010	0.013
Ceuta	0.005	0.005	0.011	0.017	0.022	0.027
Comunidad.Valenciana	0.011	0.013	0.026	0.039	0.051	0.062
Extremadura	0.009	0.009	0.018	0.027	0.036	0.045
Galicia	0.012	0.010	0.021	0.032	0.042	0.052
Madrid	0.001	0.003	0.006	0.009	0.012	0.016
Melilla	0.013	0.007	0.015	0.022	0.030	0.037
Murcia	0.012	0.015	0.029	0.042	0.054	0.067
Navarra	0.003	0.003	0.007	0.010	0.014	0.017
País.Vasco	0.004	0.004	0.009	0.014	0.018	0.022
La.Rioja	0.005	0.005	0.010	0.015	0.020	0.025

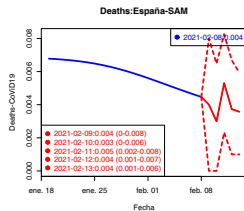
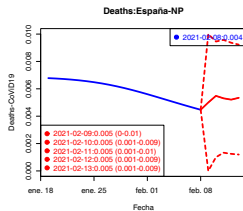
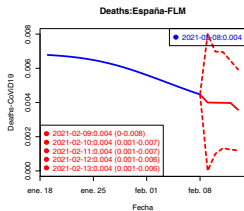
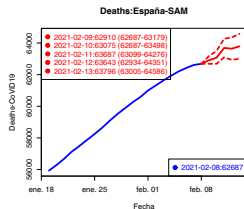
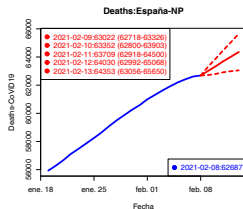
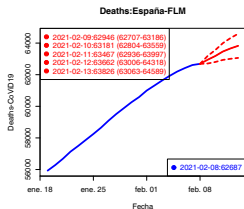
Cuadro: Previsión Ratio Incr. Fallecidos: Mod. No Paramétrico - Horizonte 1 – 5 días.

Last=08/02/2021

	Last	H1	H2	H3	H4	H5
España	0.004	0.004	0.006	0.016	0.015	0.018
Andalucía	0.007	0.005	0.010	0.016	0.020	0.024
Aragón	0.004	0.004	0.007	0.015	0.017	0.021
Asturias	0.005	0.005	0.009	0.018	0.019	0.022
Islas Baleares	0.004	0.003	0.006	0.016	0.014	0.016
Canarias	0.004	0.003	0.005	0.011	0.012	0.014
Cantabria	0.004	0.003	0.005	0.013	0.013	0.015
Castilla.La.Mancha	0.005	0.004	0.008	0.018	0.017	0.019
Castilla.y.León	0.004	0.002	0.005	0.014	0.013	0.015
Cataluña	0.001	0.001	0.001	0.004	0.004	0.005
Ceuta	0.005	0.005	0.009	0.019	0.022	0.027
Comunidad.Valenciana	0.011	0.010	0.019	0.031	0.034	0.039
Extremadura	0.009	0.005	0.012	0.018	0.025	0.031
Galicia	0.012	0.009	0.020	0.030	0.040	0.048
Madrid	0.001	0.000	0.000	0.006	0.004	0.004
Melilla	0.013	0.011	0.021	0.040	0.053	0.067
Murcia	0.012	0.010	0.018	0.034	0.038	0.044
Navarra	0.003	0.002	0.004	0.009	0.011	0.014
País.Vasco	0.004	0.004	0.007	0.013	0.015	0.018
La.Rioja	0.005	0.003	0.006	0.017	0.017	0.021

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

Fallecidos: España

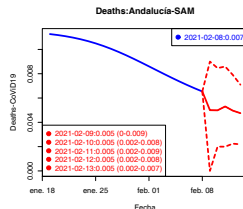
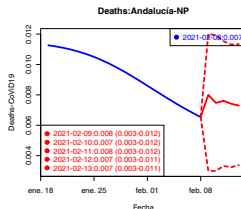
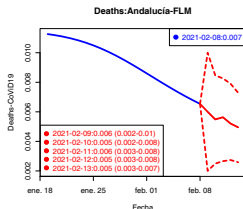
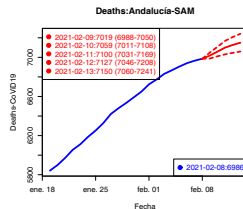
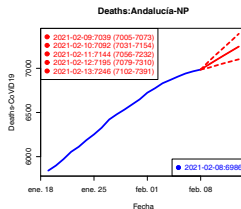
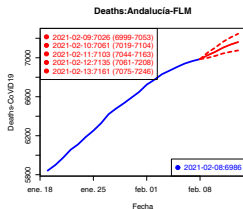


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Andalucía

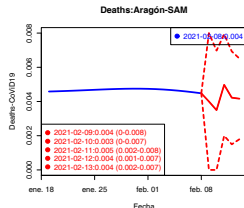
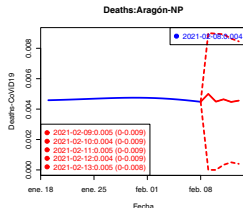
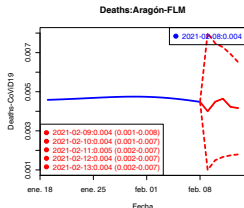
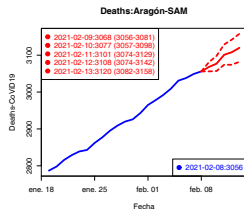
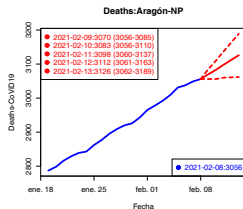
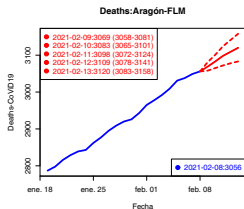


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Aragón



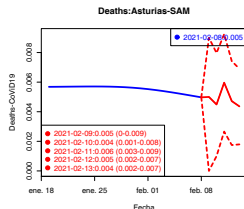
Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

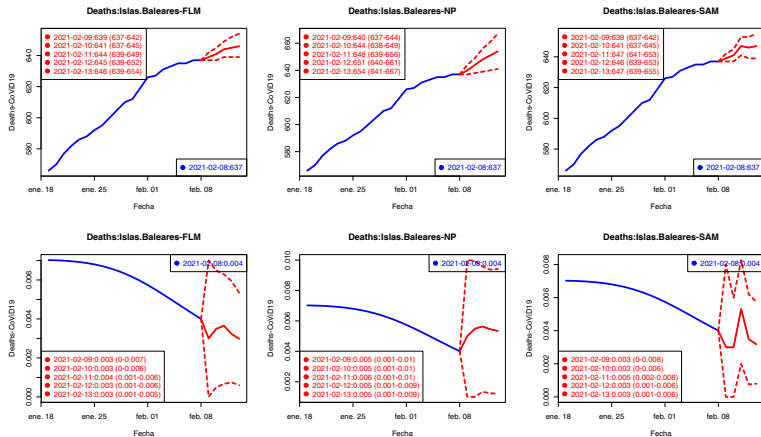
◀ Fallecidos

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

◀ Fallecidos



Fallecidos: Islas Baleares

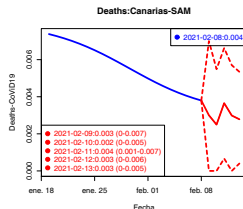
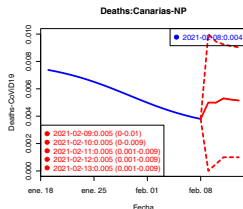
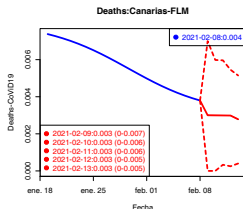
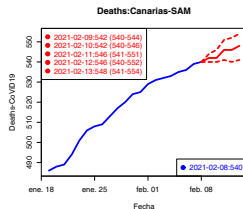
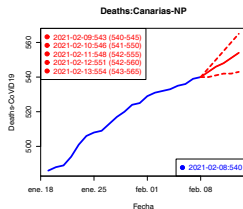
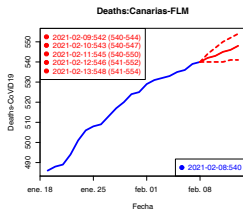


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Canarias

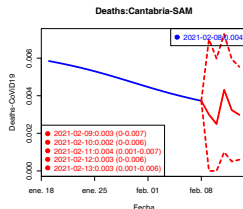
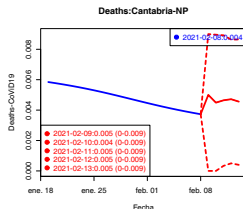
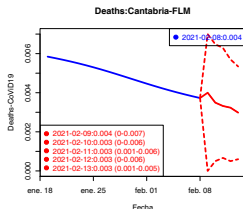
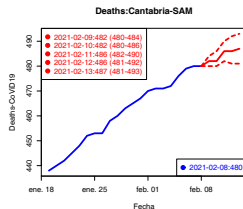
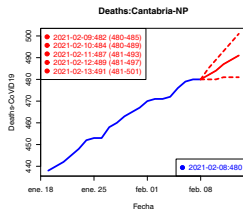
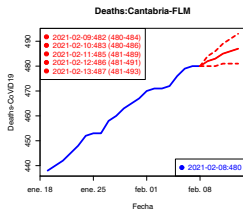


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Cantabria

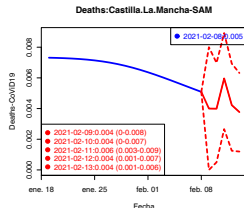
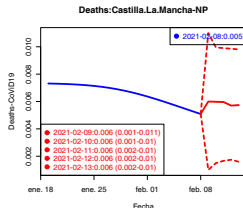
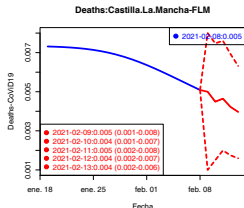
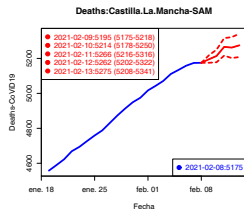
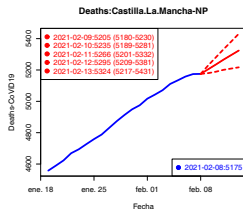
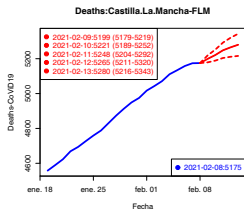


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Castilla-La Mancha

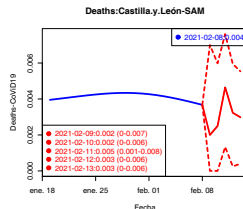
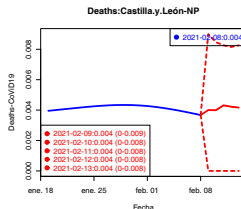
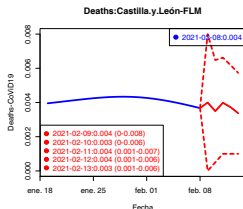
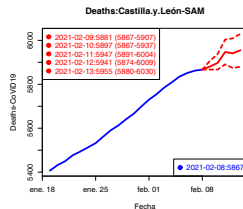
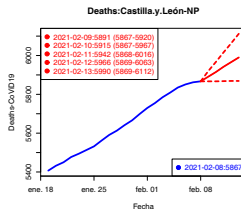
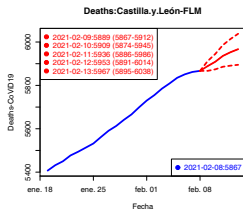


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Castilla y León

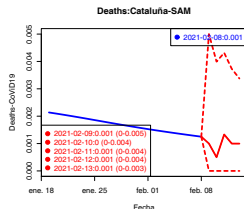
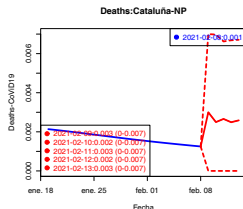
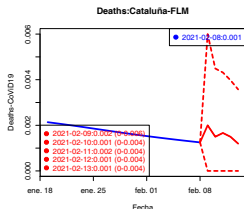
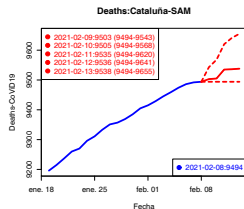
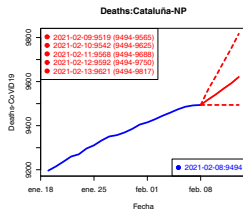
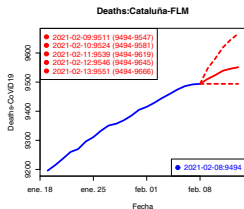


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

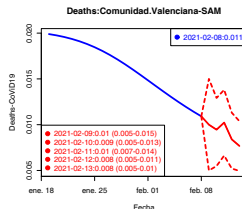
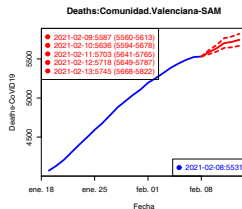
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Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

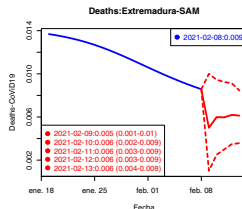
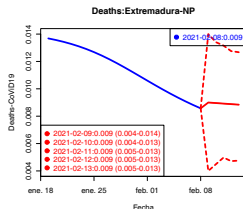
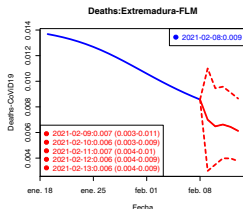
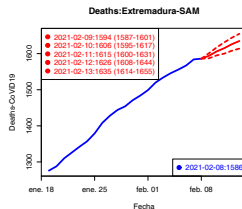
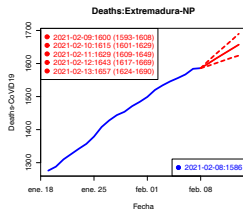
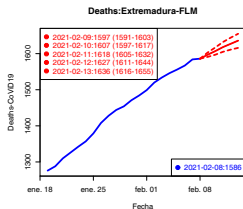


Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Extremadura

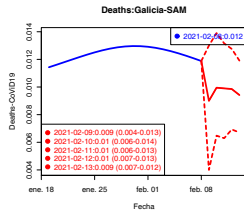
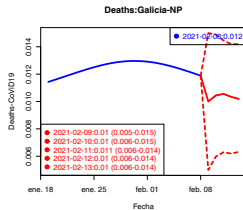
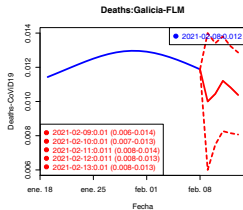
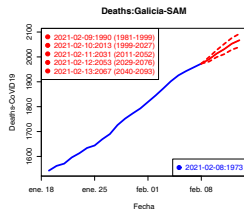
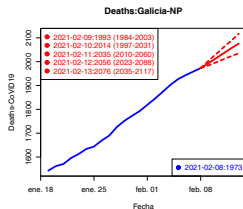
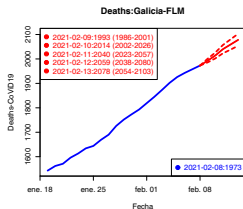


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Galicia

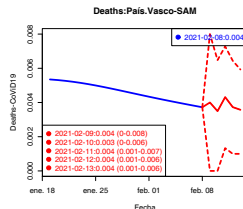
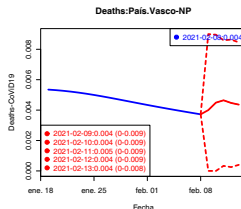
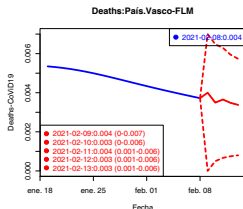
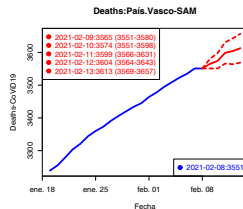
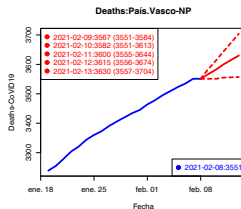
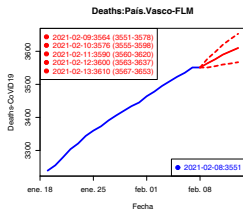


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: País Vasco

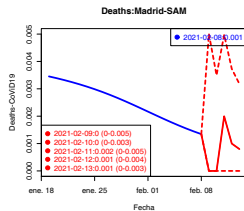
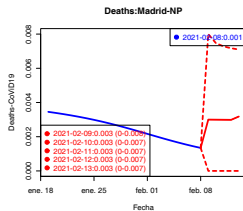
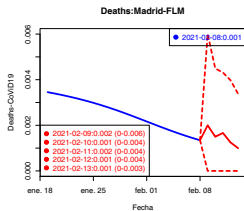
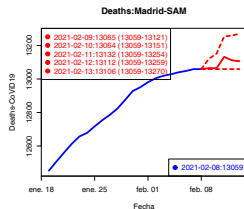
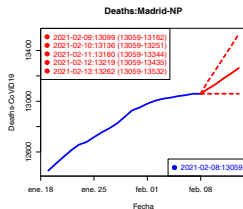
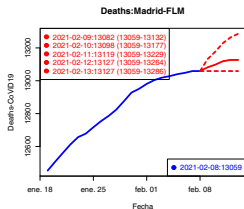


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: Madrid



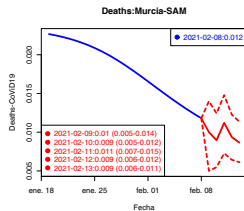
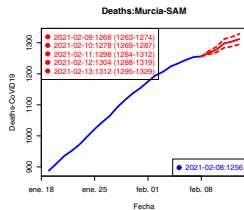
Los valores del Ratio de incremento de H2-H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

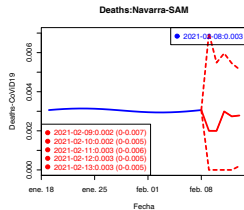
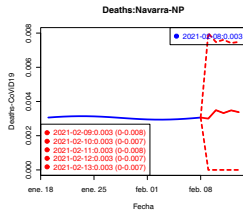
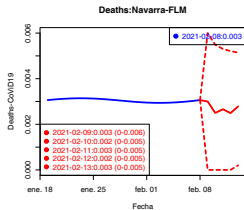
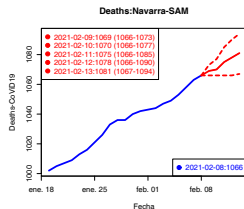
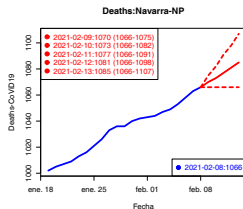
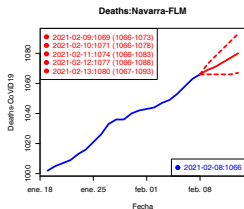
◀ Fallecidos

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

◀ Fallecidos



Fallecidos: Navarra

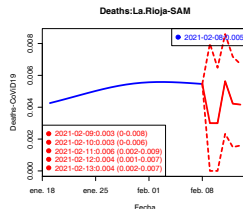
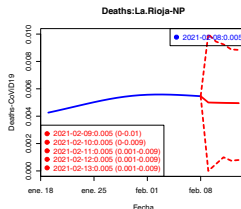
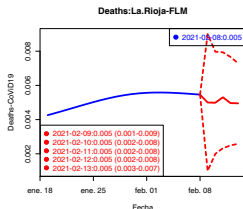
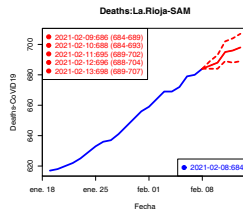
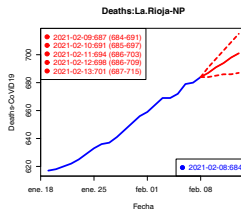
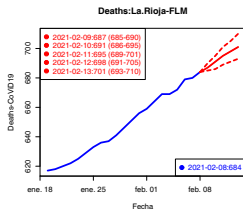


Los valores del Ratio de incremento de H2–H5 están rescalados a H1 para su comparación gráfica.

◀ Confirmados

◀ Fallecidos

Fallecidos: La Rioja



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

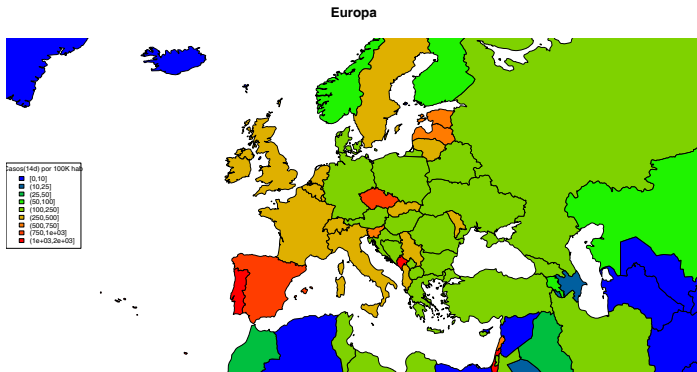
◀ Confirmados

◀ Fallecidos

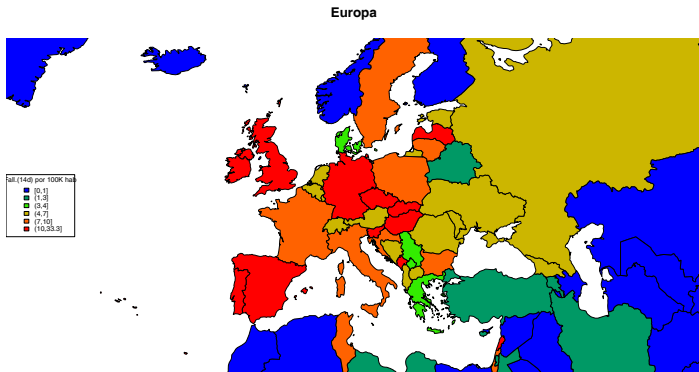
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Europa: Incidencia Acumulada (14d) por 100K hab.

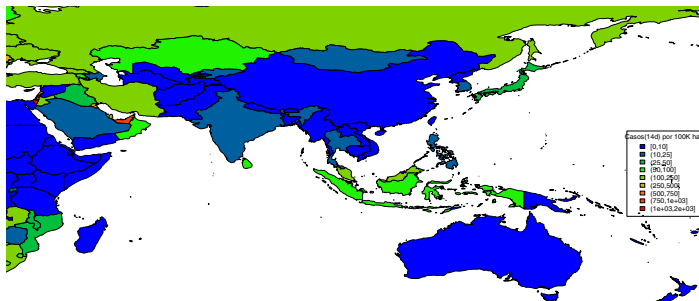


Europa: Fallecidos (14d) por 100K hab.



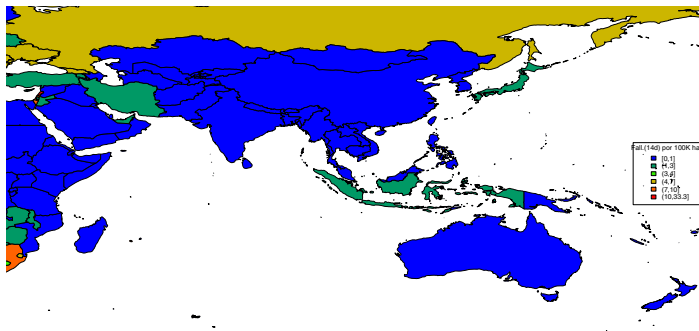
Asia y Oceanía: Incidencia acumulada (14d) por 100K hab.

Asia y Oceanía



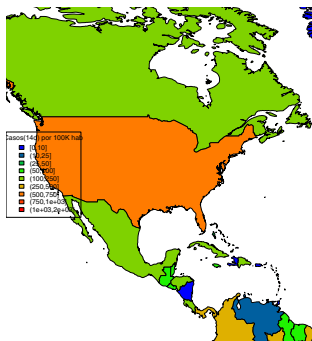
Asia y Oceanía: Fallecidos (14d) por 100K hab.

Asia y Oceanía

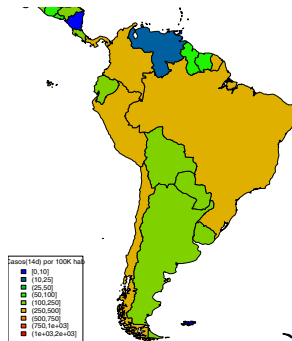


América: Incidencia acumulada (14d) por 100K hab.

América del Norte

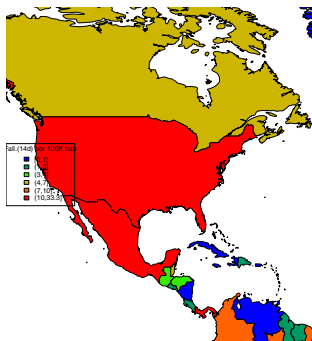


América del sur

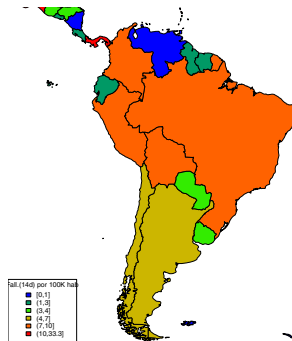


América: Fallecidos (14d) por 100K hab.

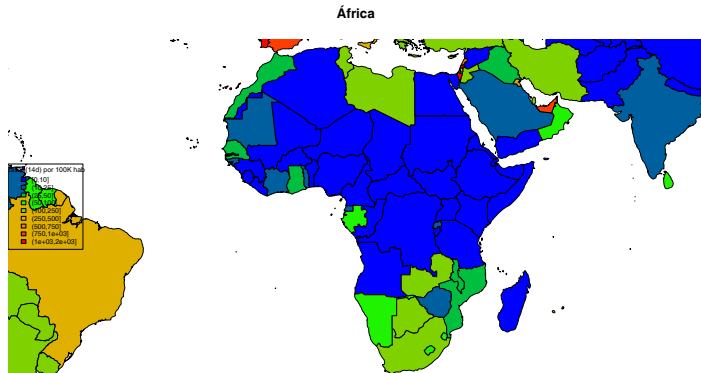
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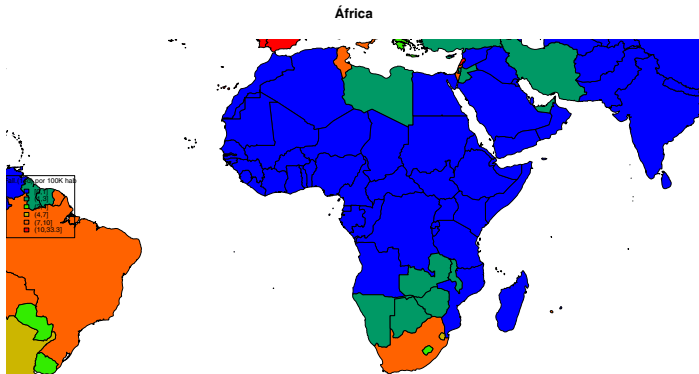
América del sur



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



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



Breve descripción del Modelo de predicción

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

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

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

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

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

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