

	Seasonal Flu	1918 Spanish Flu	1957 Asian Flu	1968 HK Flu	2009-10 H1N1	COVID-19
Pathogen	Any of several strains of influenza virus ¹	A (H1N1)	A (H2N2)	A (H3N2)	A (H1N1pdm09)	SARS-CoV-2
Infection Rate	5-10% for adults 20-30% for children ²	24.6% ²³	Up to 40% ³⁴ 60% for children ³⁵	19-58% first wave, 15-50% second wave ⁵⁰	11-21% ⁶⁶	Inconclusive data
R 0	1.3 ³	1.4-2.8 ²⁴	1.7 ³⁶	1.06 - 2.06 first wave, 1.21 - 3.58 second wave ⁵¹	1.4 - 1.6 ⁶⁷	4.7 – 6.6 ⁸⁴
Mortality rate	<0.1% ⁴	2.5-5.0% ²⁵	1.9 (per 10,000) ³⁷	Low ⁵²	0.001-0.007% ⁶⁸	Estimated 0.5-1% ^{85 86}
Case Fatality Rate (CFR)	<0.1% ⁵	>2.5% ²⁶	0.67% ³⁸	<0.2% ⁵³	0.048% ⁶⁹	1.2% New Zealand – 4.6% Iran ⁸⁹
# Infected WW	1 billion per year ⁶	500 million ²⁷	No data	No data	Confirmed 1.6 million ⁷⁰ , estimated 700 million – 1.4 billion ⁷¹	77,783,803 at time of print ⁹⁰
# Killed WW	291,000-646,000 per year ⁷	> 50 million ²⁸	1.1 million ³⁹	500,000 - 2 million ⁵⁴	Confirmed 18,449 ⁷² , estimated 151,700-575,400 ⁷³	1,711,805 at time of print ⁹¹
# Infected US	9.3 – 45 million per year ⁸	No data	No data	No data	~ 60.8 million ⁷⁴	18,163,047 at time of print ⁹²
# Killed US	12,000-61,000 per year ⁹	~ 675,000 ²⁹	116,000 ⁴⁰	100,000 ⁵⁵	~ 12,460 ⁷⁵	321,698 at time of print ⁹³
Pandemic duration	6-21 weeks ^{10 11}	14 months ³⁰ (March '18-April '19)	13 months ⁴¹ (Feb '57-March '58)	48 months ⁵⁶ (July 1968-1972)	16 months ⁷⁶ (April '09-August '10)	December 2019-present
Vaccine developed? If yes: how long until vaccine available	Yes, annually ¹² . Usually available before flu season begins ¹³	No	Yes ⁴² Rapid, within 4 months ⁴³ . First vaccines distributed in US in August 1957. ⁴⁴	Yes ⁵⁷ But in most countries, vaccine not available until after peak of pandemic. ⁵⁸	Yes, 5 vaccines FDA approved ⁷⁷ . First doses after 7 months, 9 months for general public. ⁷⁸	Fastest ever ⁹⁴ : 332 days from sequencing virus to administering first vaccine ⁹⁵ .
Treatment? If yes: how long until treatment available	Antivirals and antibiotics to treat secondary infections. Antivirals and antibiotics in CDC's SNS. ^{14 15 16}	No	Antibiotics for secondary infections ⁴⁵	Antibiotics for secondary infections. ⁵⁹	25% of antivirals released from SNS after 10 days ^{79 80} . Antibiotics for secondary infections.	Remdesivir (Oct 2020) ⁹⁸ , monoclonal antibodies and convalescent plasma (Nov 2020) ^{99 100} , dexamethasone.
Main population affected (age, preexisting conditions)	65 and older, and people with certain chronic conditions (asthma, lung disease, immunodeficiency, diabetes, heart disease), pregnant women, children <5 years. 90% deaths in patients >65 ^{17 18}	>5 years old, 20-40 year old healthy young adults, 65+ ³¹	Children most affected. Chronic heart and lung disease, rheumatic heart disease most prevalent factor. Women in third trimester of pregnancy. ⁴⁶	Across all age groups. Excess mortality in 65+, infants. ^{60 61 62}	Children, young, middle-aged adults, 80% deaths in patients younger than 65, Obesity prevalence in ICU patients, 1/3 of people over 60 have antibodies. ⁸¹	Elderly, chronic medical conditions of heart and lung, diabetes, obesity ¹⁰¹ . Black, Hispanic, Native American persons. ¹⁰²
Control Measures applied	Voluntary home isolation, respiratory etiquette, hand hygiene recommended. Use of face masks when ill ¹⁹ . Annual vaccination recommended. ²⁰	Isolation, face coverings, quarantine, personal hygiene, use of disinfectants, limitations of public gatherings. ³²	Some schools closed, in some communities banning of assemblies and physical training. ⁴⁷	None. Lower disease severity and mortality meant that NPIs like school closures and quarantines were unnecessary. ⁶³	School closures as of April 2009. ⁸²	Closure of schools and non-essential businesses, travel restrictions, social distancing, home quarantine, testing and contact tracing, masks, disinfectants, hand hygiene. ^{103 104}
Subsequent waves?	A different flu strain can cause a second wave in one flu season. ^{21 22}	In US, second wave September/November 1918 (highly fatal), 7 months after first occurrence. Third wave in winter/spring 1919. Minor fourth wave spring 1920. ³³	Second wave in November '57, was particularly devastating, 9 months after first occurrence ⁴⁸ . Further waves in 1958, 1959, 1960. ⁴⁹	Four waves, returning in 1969, 1970, 1972 ⁶⁴ . Second wave was most deadly. ⁶⁵	In US, second wave from August-October '09, 5 months after first occurrence. ⁸³	Second wave/surge in summer/fall/ winter depending on location ¹⁰⁵ . WHO expects third wave in Europe. ¹⁰⁶

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