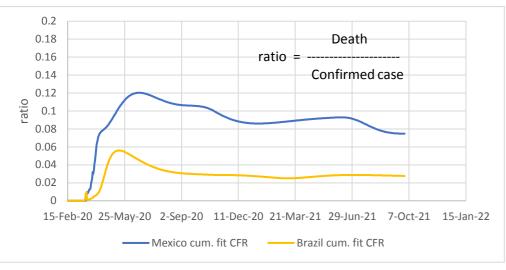
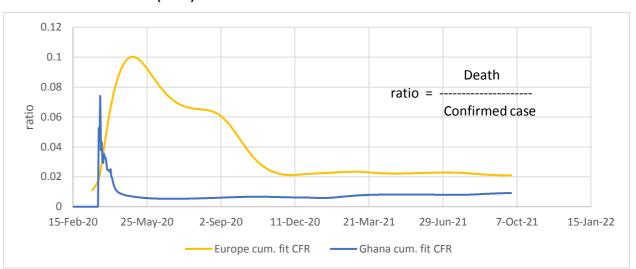
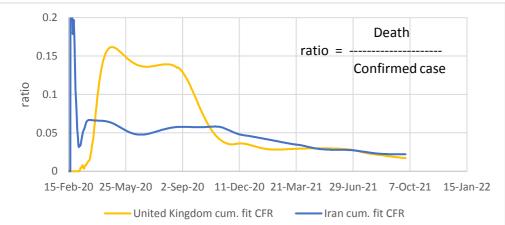
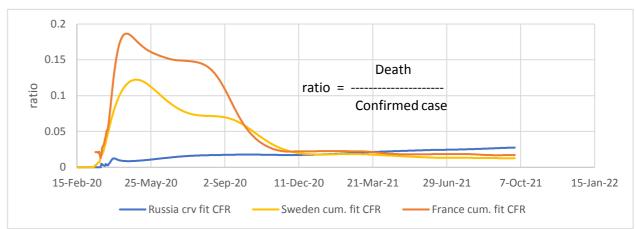
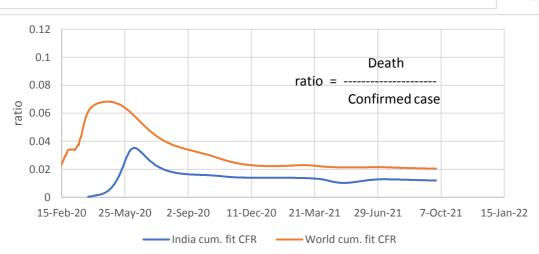
## Experimental page: ratios of curve fit deaths to curve fit confirmed cases (CFR)

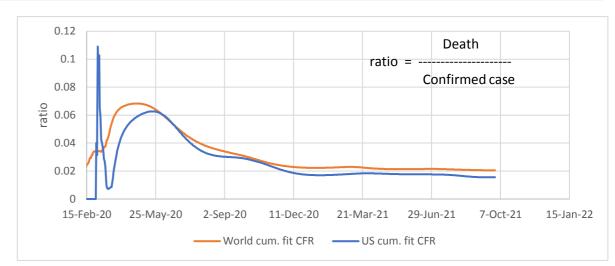






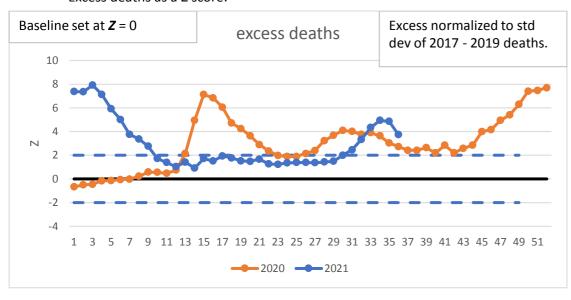


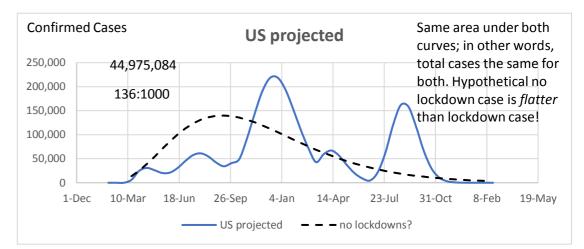




# Excess deaths as a Z score:

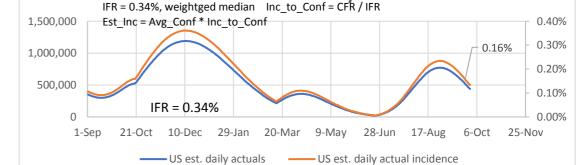
follows is cumulative plot of same.





Above based on Z score of two standard deviation from 2017-2019. What

Count



**US** estimated actual daily infections

Data in recent weeks are incomplete. Only 60% of death records are submitted to NCHS within 10 days of the date of death, and completeness varies by jurisdiction. Data are not weighted and counts are likely

Baseline set at Z = 0Excess normalized to std excess deaths dev of 2017 - 2019 deaths. 300 250 200 150 Ν 100 50 0 -50 30 40 50 0 10 60 week zeroed cumulative 2021 cumulative 2020 cumulative 2021

## **False Positives Demonstration**

Use 0.16% as estimated daily incidence

Prevalence estimated as avg. infected period of 2 weeks X incidence

	95%	accuracy of	t test	_
		Positive	Negative	
test pos		2.128%	4.888%	7.0
test neg		0.112%	92.872%	92.9
		2.240%	97.760%	100.0

 $0.16\% \times 14 = 2.240\%$ Sensitivity Probability of detection

02% 98% .00%

where condition exists True + / (True + & False -) 95%

False pos. is more than half of total positives. TRUE + 2.128%/7.02% 30.3% 4.888%/7.02% FALSE + <u>69.7%</u> Total 100.00%

**Specificity** Probability of not detecting where condition doesn't exist True - / (True - & False +) 95%

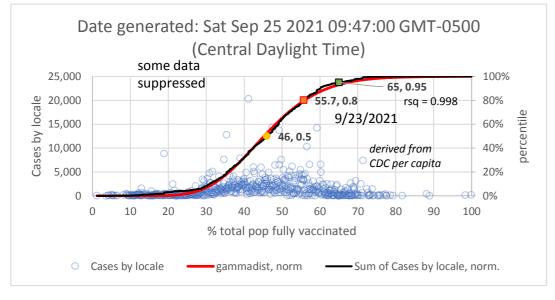
Incidence

## US mortality vs. India 250:100,000 200:100,000 150:100,000 100:100,000 50:100,000 0:100,000 1-Dec 10-Mar 18-Jun 26-Sep 4-Jan 14-Apr 23-Jul 31-Oct US cum. fit per 100k ——India cum. fit per 100k

#### Provisional COVID-19 Death Counts 85 years and over 75-84 years 65-74 years 50-64 years 55-64 years 45-54 years 35-44 years rsq = 0.99025-34 years 15-24 years 5-14 years 1-4 years Under 1 year https://data.cdc.gov/NCHS/Provisional-COVID-19-Death-Counts-by-0% 5% 10% 20% 25% 15% 30%

### CDC county data on week indicated new cases, by % fully vaccinated.

■ Total deaths ■ Covid deaths



#### USA Excess Deaths, 2020 (from CDC data):

	Annualized on 52			
		All Cause	All Cause, excl. CV19	CV19
3	yr average before 2020	859:100,000	859:100,000	-
	2020	1016:100,000	905:100,000	-
	Diff.	157:100,000	46:100,000	111:100,000

	3 yr average
	859:100,000
Diff	

29% of All-Cause excess deaths are non-CV19

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#### **USA Excess Deaths to date (from CDC data):**

37 weeks	All Cause	All Cause, excl. CV19	CV19
3 yr average before 2020	606:100,000	606:100,000	-
2021	718:100,000	624:100,000	-
Diff.	112:100,000	17:100,000	95:100,000

	3 yr average
	859:100,000
Diff.	

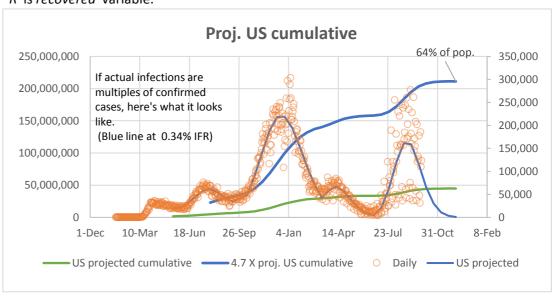
15% of All-Cause excess deaths are non-CV19

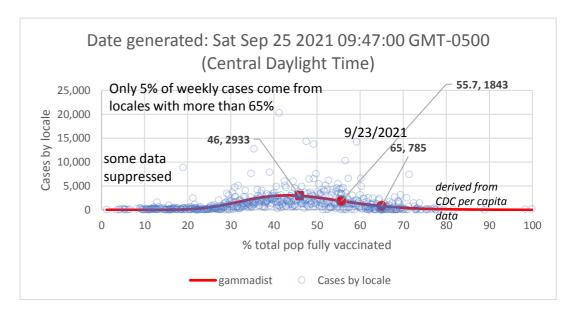
K = 0.318  $R_o$ : gamma = 0.171  $R_o = \exp(K/\text{gamma}) = 6.42$ gamma = 0.286  $R > 1 - 1/R_o = 3.04$ 

84% <=Herd immunity 67%

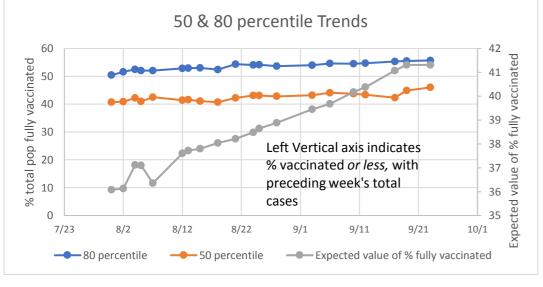
R :

R is recovered variable.

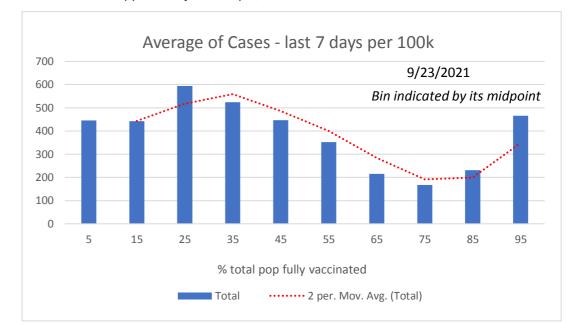


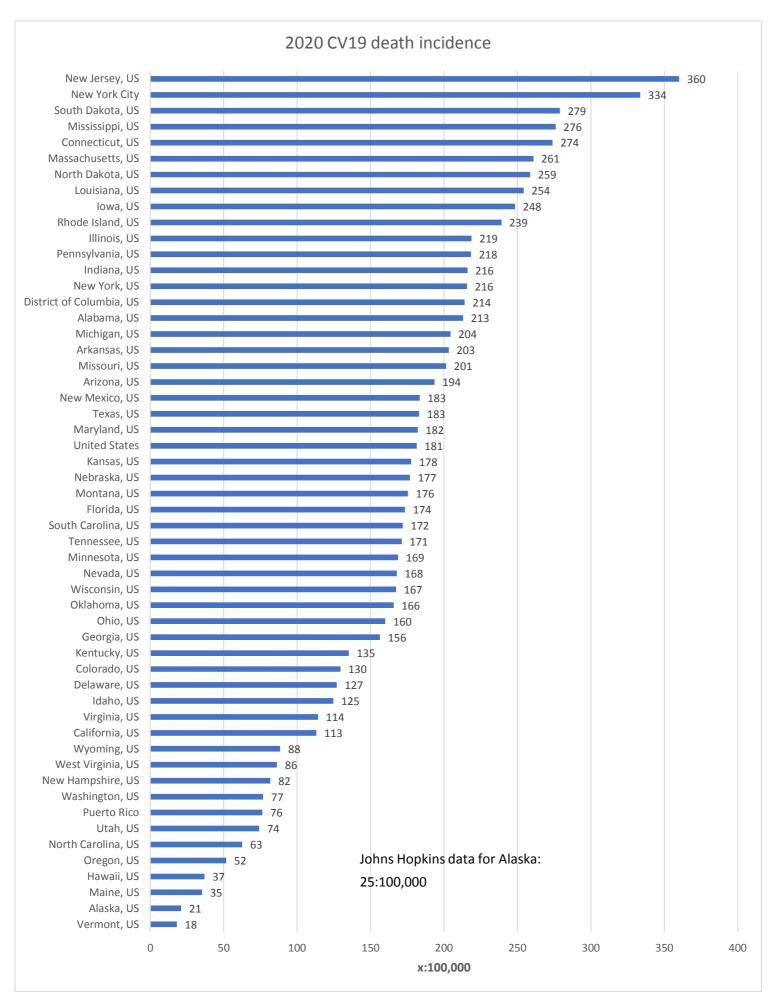


### reporting jurisdictions not uniformly distributed; some data suppressed, for example, Texas



https://covid.cdc.gov/covid-data-tracker/#vaccination-case-rate





 $\underline{https://data.cdc.gov/NCHS/Weekly-Counts-of-Deaths-by-State-and-Select-Causes/muzy-jte6/data}$