



Want to “Open Up” without a Vaccine? Implement Comprehensive Daily Testing: Yearly Cost of Daily Covid-19 Testing for All US Adults and Children Who Would Need it at Medicare Reimbursement Rates is \$1.9 T

Ron Baiman, June 15, 2020

The cost of testing all workers, students, young children in childcare and daycare programs, and people in group quarters: including prisons, military, college dorms and other residential institutions, every day of the year in which they need to go to work, or school, or daycare, or reside in their institution, including a once a year test for antibodies, based on the Medicare reimbursement rate for Covid-19 tests of \$36, and \$119 per antibody test, is roughly 1.9 T.

Comprehensive testing could also serve as a very large, though temporary, jobs program. The Fed could make funding available buying US Treasuries (and recycling interest payments on them to the Treasury) as it has done for the roughly \$ 2.2 T cost of the [three Corona-19 related Bills](#) that have recently become law. The Fed reserve has [increased its total Assets by \\$ 3.8 T from 3/4/2020 to 5/7/2020](#). This is money that it has pumped into the (mostly) US economy for which no net interest or debt payments from the Treasury are necessary (aside from negligible fees to fund the Fed). Much of this has undoubtedly been used by the Fed to bailout US corporations [that have increased their bonded indebtedness by roughly 500% since 2001](#).

Spending \$1.9 T to responsibly open up the economy and provide jobs for the [38.6 million](#) (as of 5/21/2020) US workers who have lost their jobs and filed for unemployment in the last nine weeks and actually help working people [instead of corporate and investor balance sheets](#) is a bargain. This program would also better address the long term core structural problems of a US economy that has been hollowed out and looted by [the increasing power of rentiers to extract ever greater streams of income](#) from increased asset price bubbles, debt, and monopoly pricing. A comprehensive testing program would safeguard lives and support the real economy. Inflated asset prices should be reduced, and debt written off, as these are a parasitical burden on society and the real economy.

Universal daily testing, besides potentially saving hundreds of thousands of lives, and illness and irreversible damage to health (and personal finances under obscene for-profit US “health care system”) would also be much more economically efficient than social distancing, or making people risk death or severe illness in order to make ends meet by forced “opening up” (due to a lack of adequate federal income or health care support for individuals, and states and localities) without a vaccine or universal daily testing. For example, [GDP loss for the US economy from just two months of partial shutdown](#) due to the Coronavirus was estimated in April 6 to be \$ 2.1 trillion. This [May 4, 2020 OECD report](#) similarly notes how widespread testing and contact tracing more economically efficient (and effective in reducing infection) than social distancing citing the examples of S. Korea and Singapore.

Row	Cost of Daily Covid-19 Testing for All Who Need One	
1		(References in Endnotes)
2		
3	Calculations	Schools and Colleges
4		19.9 Colleges and universities 2019 (million) (1)
5		56.6 K-12 (million) (2)
6	R4+R5=Total People:	76.5 Total in school and colleges and universities (million)
7	Testing Days Needed:	180 Average school days a year (3)
8	R6xR7=Total Tests:	13,770 Total tests for schools and colleges and universities (million)
9		Workers, Infants, and Preschoolers
10		1.5 3 to 4 year olds in preschool (million) (4)
11		6 0-3 year olds in preschool-daycare (million) (5)
12		155.7 Emp march 2020 (million) (6)
13	R10+R11+R12=Total People	163.2 Total employees and young children requiring daycare and childcare (million)
14		261 Average paid working days in US (million) (7)
15		-16 Average holidays in US (8)
16	R14-R15=Testing Days Needed	245 Total days work and day care and childcare tests needed
17	R13xR16=Total Tests	39,984 Total tests needed for employees and young children (million)
18		People in Group Quarters
19		331 Total US pop 2020 (million) (9)
20	R19x0.026=Group Quarters + College housing	8.606 2.6% in group quarters (million) (10)
21	R20x0.316=College Housing	-3.106766 minus 31.6% in college and university housing (million) (10)
22	R20-R21=Total People in Group Quarters	5.499234 Group quarters without college and university housing (million)
23	Testing Days Needed	365 Daily tests
24	B22xB223=Total Tests	2,007 Total tests for people in group quarters minus college and univ dorms (million)
25		Annual Daily Covid-19 Testing Cost
26	R8+R17+R24=Total CV-19 Tests	55,712 Total tests per year needed in US before antibodies check (million)
27	R26-0.05xR26=Tests on people without AB	52,926 Minus 5% antibodies (million) (12, 13, 14)
28		\$ 36.00 Cost of CDC test paid by Medicare (11)
29	R28xR27=Total Costs CV-19 Tests	\$ 1,905,358 (million)
30		Annual One-Time Antibody Testing Cost
31	Total Antibody Tests	245 Total adults and children requiring antibody testing (million)
32		\$ 119.00 Cost of antibody testing (15)
33	R31xR32=Total Costs of Antibody Tests	\$ 29,155 Once a year for everyone at beginning of testing cycle (million)
34		Total Annual Testing Regime Cost
35	R29+R33=Total Yearly Test Regime Cost	\$ 1,934,513 Total cost of yearly anti-body and covid-19 testing (million)

Numerous providers have released versions of [quick nasal swab or saliva based molecular Covid-19 test kits](#). The fastest of these is the [Abbot ID-Now Covid-19 nasal-swab based at-home test kit](#) that can deliver results in 5-13 minutes. These have been approved for emergency use by the FDA and (as of 6/9/2020) [3.3 million have been shipped](#) to all 50 state Puerto Rico and the Pacific Islands.

These tests are not perfect. The Abbot ID-Now test for example gives a [5.3%-8.7% false negative result for people with early post-symptom CV-19 in laboratory tests](#). But testing every day rapidly reduces the chance of not catching people with CV-19. For example, the odds of not identifying a CV-19 individual after three daily tests at an 8.7% false negative rate would be 0.09% (nine one-hundredth of a percent).

As of today (6/13/2020) official US data indicate [that 2.09 million people have tested positive for CV-19 and of these 116,347 people have died](#) from the disease. Anirban Basu, the author of a recent [Health Affairs study forecasting CV-19 impact on the US](#), in a [5/18/2020 Science News interview](#), states that based on current trends (if a vaccine does not become available) a conservative estimate is that 20% of the US population could become infected and 350,000 to 1.2 million people in the US could die from CV-19 by the end of 2020. Based on this estimate the universal testing regime proposed above would not only be more economically efficient but could save the lives of hundreds of thousands of people (284,000 – 1,084,000 subtracting 116,000 from estimate above) in the US from now until the end of the year. To put this in perspective, as of 6/13/2020 US deaths from CV-19 (116,347) have already surpassed [total US military and civilian war casualties from the end of WW2 to today \(102,684\)](#).

Endnotes:

1. 19.9 million college students in 2019: https://nces.ed.gov/fastfacts/display.asp?id=372#College_enrollment
2. 56.6 M K-12 kids in US in 2019: <https://educationdata.org/k12-enrollment-statistics/>
3. Average school days in us 180 days in 2013: <https://www.businessinsider.com/why-america-needs-longer-school-days-2013-9>
4. 1.5 M in 2017 US kids 3-4 in preschool: <https://www.pbs.org/newshour/education/record-number-kids-now-attend-public-preschool-inequality-grown>
5. 6 M kids under 3 in non-parental care: <https://www.zerotothree.org/resources/2012-infant-toddler-child-care-fact-sheet>
6. Employed people in March 2020 in US 155.7 M: <https://tradingeconomics.com/united-states/employed-persons>
7. Average working days in us 261 in 2019: <https://hr.uiowa.edu/pay/payroll-services/payroll-calendars/working-day-payroll-calendar-2019>
8. Average days off in us in 2015 16 days: <https://www.cnbc.com/2018/07/05/heres-how-many-paid-vacation-days-the-typical-american-worker-gets-.html>
9. Total 2020 US Pop 331 M: <https://www.worldometers.info/world-population/us-population/>
10. Total US pop in group quarters (institutional and non-institutional) 2.6% of pop and of these about 31.6% in college and university housing: <https://www.nap.edu/read/13387/chapter/4#23>
11. CDC Coronavirus test \$36: <https://www.axios.com/medicare-price-cdc-coronavirus-test-b11170ec-9d40-494f-a3b0-db5005cb7377.html>
12. 2.5 – 5.6 % antibodies in CA: <https://www.vox.com/2020/4/24/21229415/coronavirus-antibody-testing-covid-19-california-survey>
13. 2.8% in Indiana anti-bodies: <https://www.wlwt.com/article/preliminary-data-28-of-indianas-population-has-coronavirus-antibodies/32464850>
14. 12.3% antibodies in NY State: <https://www.axios.com/coronavirus-new-york-antibody-test-f4fbed78-646f-4b46-90b8-5e8ca75380e4.html>
15. Antibody test \$119: https://questdirect.questdiagnostics.com/products/covid-19-immune-response/b580e541-78a5-48a6-b17b-7bad949dcb57?utm_source=google&utm_medium=cpc&utm_campaign=71700000067552822&utm_content=58700005887433871&utm_term=p53920247606&gclid=CjwKCAjw2a32BRBXEiwAUcugiPEochQjfSHOto8LG_xXG89SXkIdMbNBWdGj_0Y5Sag-S1q3GJpbPRoCuz8QAvD_BwE&gclsrc=aw.ds