COVID update Aug 17 2020

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No disclosures

Opinions expressed only my own

Seasonal impact of COVID and flu is due to behavior not temperature

Challenges to maintain physical distancing when more persons have symptoms

Flu vaccination and respiratory disease diagnostics will be important

Impact of normal flu season not clear—will COVID related distancing measures mitigate it, does COVID outcompete flu?

Much easier to control COVID when there are a few cases than once it is diffuse and widespread

Public health intervention impact is 1-2 months lag time

Building a Successful Public Health Response to Covid-19

Supplement to the N Engl J Med 2020; 383:e67

Eric Rubin is the Editor-in-Chief of the *Journal*.
Lindsey Baden is a Deputy Editor of the *Journal*.
Stephen Morrissey, the interviewer, is the Executive Managing Editor of the *Journal*.

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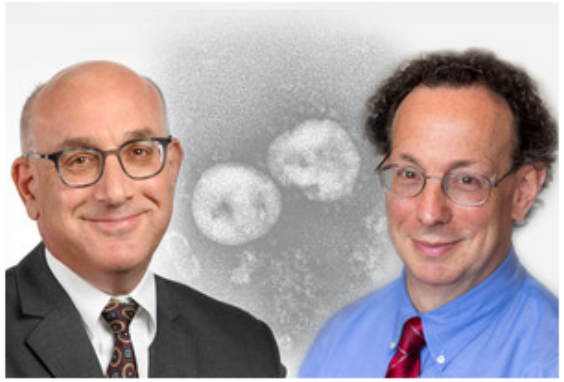

Recent selected media

Indian Country and COVID

On Native American Land, Contact Tracing Is Saving Lives

As the coronavirus spread on the Fort Apache reservation in Arizona, medical teams sought out residents who might have been exposed. The effort paid off in unexpected ways.

NEWS

Native American tribes have been hit harder by COVID-19. Here's why.

Nora Mabie Great Falls Tribune

Published 6:00 a.m. MT Aug. 5, 2020 | **Updated 9:51 a.m. MT Aug. 10, 2020**

Cheyenne River Sioux Tribe denies Sturgis bikers entrance to fight coronavirus

The Native American tribe denied tourists entrance through the reservation to keep COVID-19 numbers low.

By Alexandra Kelley | Aug. 10, 2020

This is hard

Maintaining capacity and readiness

Difficulty for communities and health care can increase with time

Data and pressures can change quickly and locally

Ongoing evidence of severity of COVID-19

No clear timeline when we will ‘turn the corner’

Morbidity and Mortality Weekly Report (*MMWR*)

CDC

Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic — United States, June 24–30, 2020

Weekly / August 14, 2020 / 69(32);1049–1057

What are the implications for public health practice?

The public health response to the COVID-19 pandemic should increase intervention and prevention efforts to address associated mental health conditions. Community-level efforts, including health communication strategies, should prioritize young adults, racial/ethnic minorities, essential workers, and unpaid adult caregivers.

Difficulties of maintaining COVID stances

COVID-19 takes a bite out of state's gaming revenue

By Barbara Hoberock Tulsa World 46 min ago

OKLAHOMA CITY — Gaming fees tribes pay the state were poised to rise above last year's levels, but COVID-19 took a bite out of those hopes....

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COVID-19: Native American Educators Face Unique Challenges

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CDC 24/7: Saving Lives, Protecting People™

Coronavirus Disease 2019 (COVID-19)

- The overall cumulative COVID-19-associated hospitalization rate was 137.6 per 100,000; rates were highest in people 65 years of age and older (378.8 per 100,000) followed by people 50-64 years (207.4 per 100,000). Cumulative hospitalization rates will increase as the pandemic continues.
  - From week 25 – week 28 (weeks ending June 20 – July 11), overall weekly hospitalization rates increased for three consecutive weeks. Weekly rates have declined during the most recent three weeks but may increase as more data are received.
  - Non-Hispanic American Indian or Alaska Native persons had an age-adjusted hospitalization rate approximately 5.2 times that of non-Hispanic White persons. Rates among non-Hispanic Black persons and Hispanic or Latino persons were both approximately 4.7 times the rate among non-Hispanic White persons.

Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

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https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html, Aug 12 2020

THE LANCET
Diabetes & Endocrinology

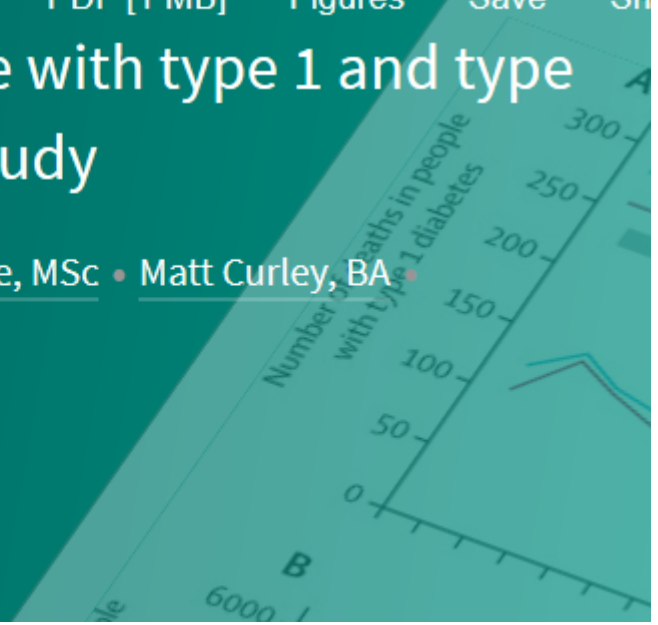
ARTICLES | ONLINE FIRST

PDF [1 MB] Figures Save Sh

Risk factors for COVID-19-related mortality in people with type 1 and type 2 diabetes in England: a population-based cohort study

Naomi Holman, PhD • Peter Knighton, MPhys • Prof Partha Kar, MD • Jackie O'Keefe, MSc • Matt Curley, BA • Andy Weaver, MSc • et al. Show all authors

Published: August 13, 2020 • DOI: https://doi.org/10.1016/S2213-8587(20)30271-0



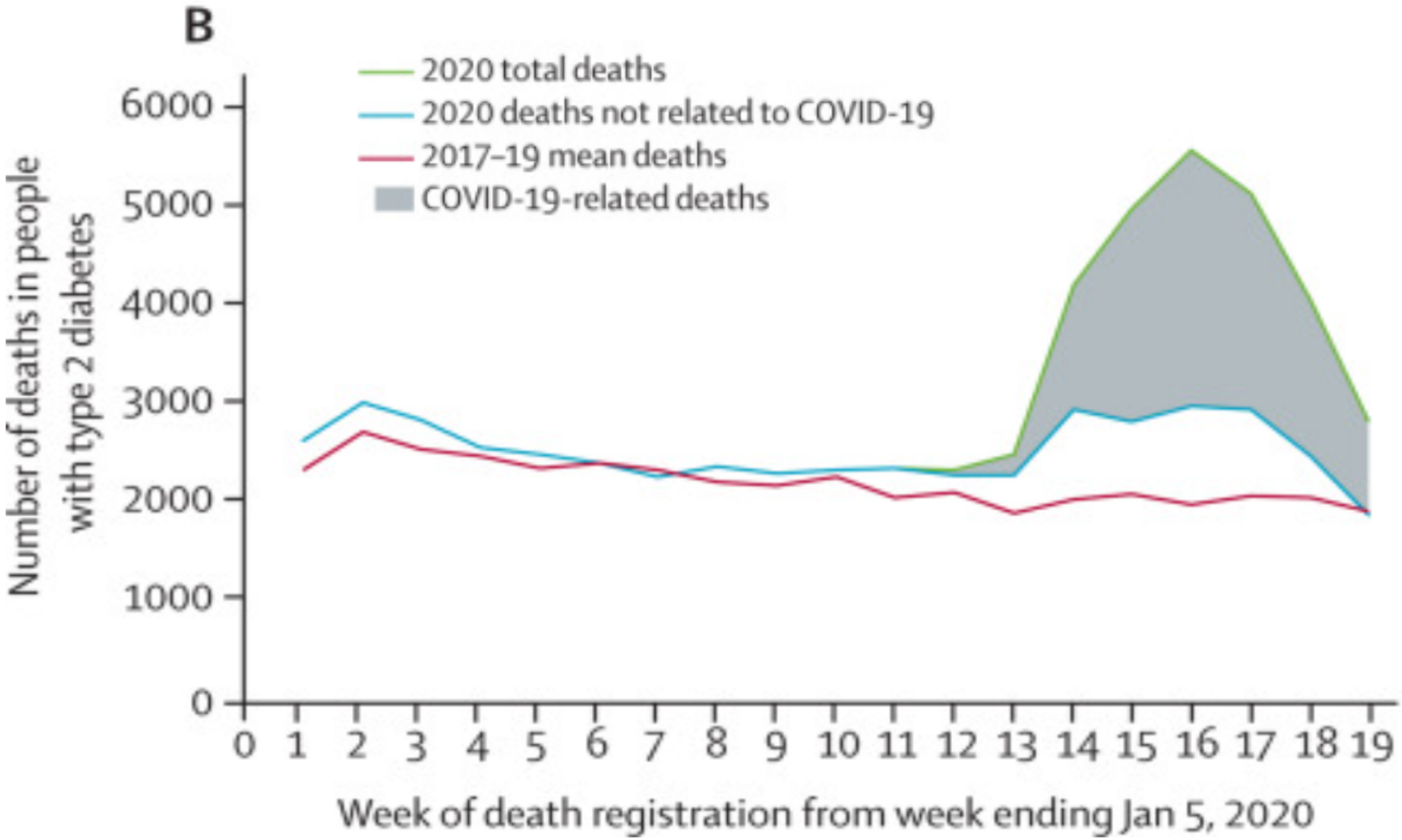
Audit of diabetes deaths

Linked death certifications with national diabetes registry

Covered 98% of United Kingdom

Compared deaths from all causes among patients with diabetes in same frame 2017-2020

~36,000 deaths in 2020 Feb 16-May 11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2020 total deaths
2020 deaths not related to COVID-19
2017–19 mean deaths
COVID-19-related deaths
Number of deaths in people with type 2 diabetes
6000
5000
4000
3000
2000
1000
0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
Week of death registration from week ending Jan 5, 2020

Findings

Rapid and sizeable increase in mortality from all causes among persons with both type 1 and type 2 diabetes (approx. 65% with COVID on death certificate)

COVID-19 death associated with obesity, hypertension, cardiovascular conditions, hyperglycemia

COVID-19 related death associated with age, sex, ethnicity, and socioeconomic deprivation

FDA NEWS RELEASE

Coronavirus (COVID-19) Update: FDA Issues Emergency Use Authorization to Yale School of Public Health for SalivaDirect, Which Uses a New Method of Saliva Sample Processing

August 15, 2020

Main points of Saliva Direct

Uses saliva instead of respiratory swabs

Enables frequent and non-invasive sampling

Reduces need for health care professionals for sampling

Simpler approach

Does not require preservatives at sample collection

Replace nucleic acid extraction step with simpler procedure

Less expensive+scalable = more accessible

Validated on a variety of reagents and instruments from multiple vendors, avoids supply chain and procedural bottlenecks

Open source/not commercialized

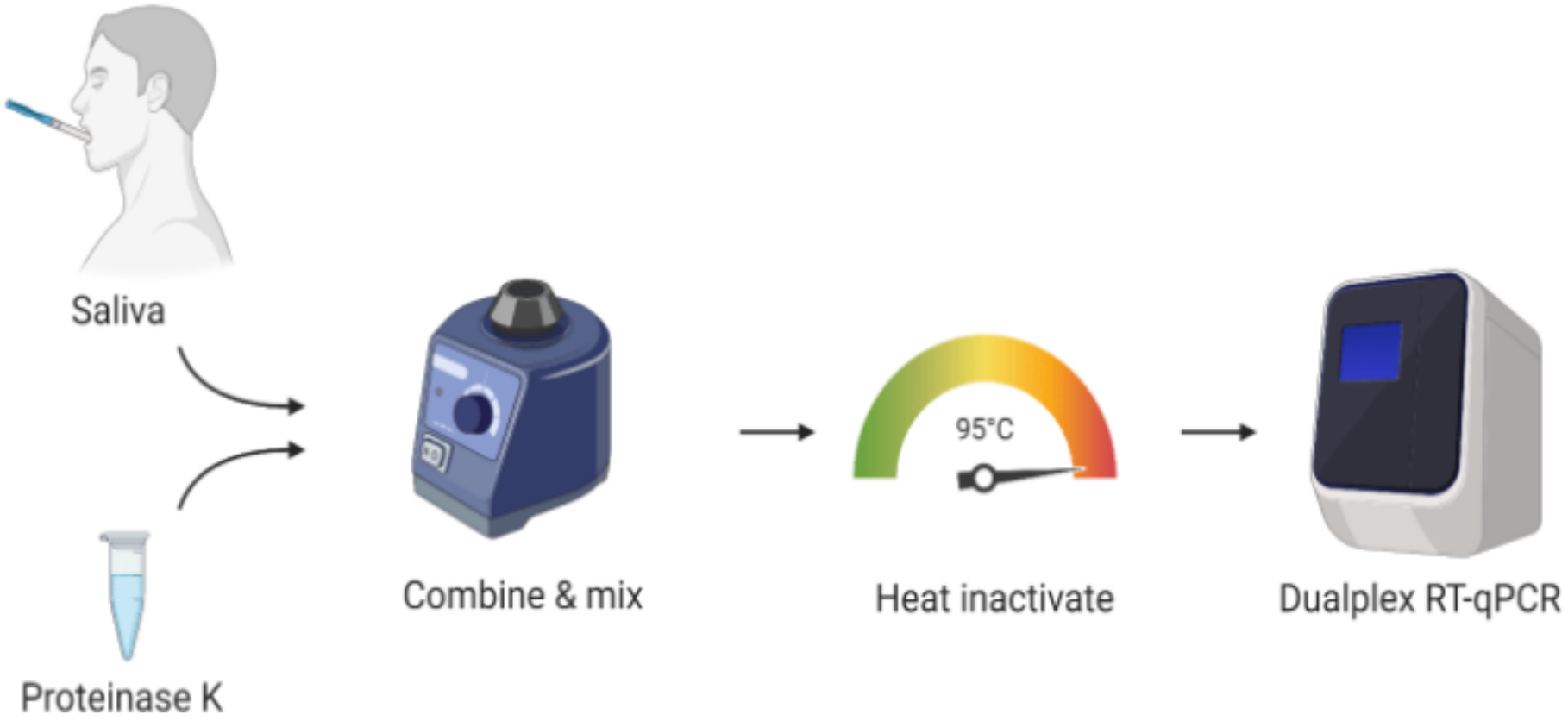
Estimate $1.29-$4.37 per sample

Validation

94% agreement with NP swabs

Low limit of detection (6-12 copies/µL)

Data suggest that SARS-CoV2 RNA is stable in saliva without preservatives for at least 7 days when stored at temperatures of up to 30°C (86 degrees F)



Overview of the SalivaDirect workflow. Created with biorender.com.

Going forward

Large-scale testing of a mostly uninfected population will likely require validation with asymptomatic and pre-symptomatic cases to evaluate whether automation and/or pooling is cost-effective.

By using many different vendors, not seeking commercialization, and making the protocol completely open, our goal is to make SalivaDirect as accessible as possible

Next steps

SalivaDirect is not a kit to buy, it is a protocol that can allow authorized labs to use with reagents that can be purchased for very cheap

SalivaDirect protocol is free to use by CLIA-certified diagnostic labs – they designate your lab as an authorized lab

Email to salivadirect, collaboration with peers and Yale to further hone data

Source info

Pre-Print
https://www.medrxiv.org/content/10.1101/2020.08.03.20167791v1.full.pdf

Protocol:

https://covidtrackerct.com/about-salivadirect/

FDA Authorization

https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-issues-emergency-use-authorization-yale-school-public-health