

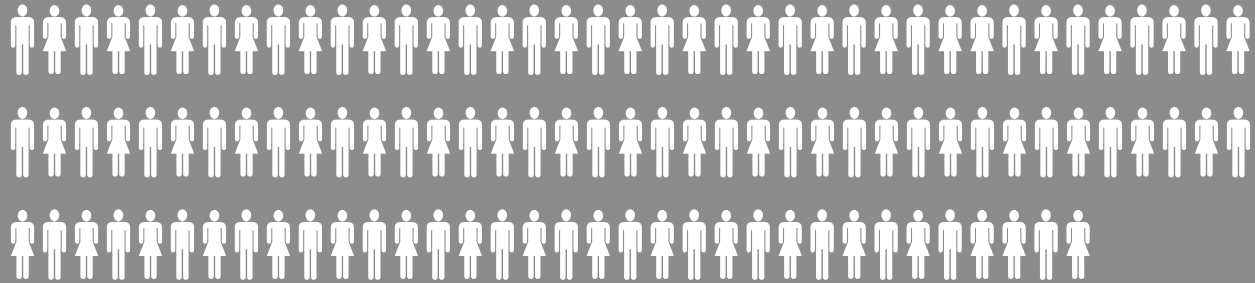
Increase in suicides the months after the death of Robin Williams in the U.S.

David S. Fink, Julian Santaella-Tenorio, Katherine M. Keyes
Department of Epidemiology, Columbia University

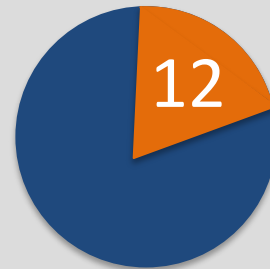
Suicides threaten population health in the U.S.

There were 44,965 suicides in the U.S. in 2016.

This is equal to **123 suicides** every day.



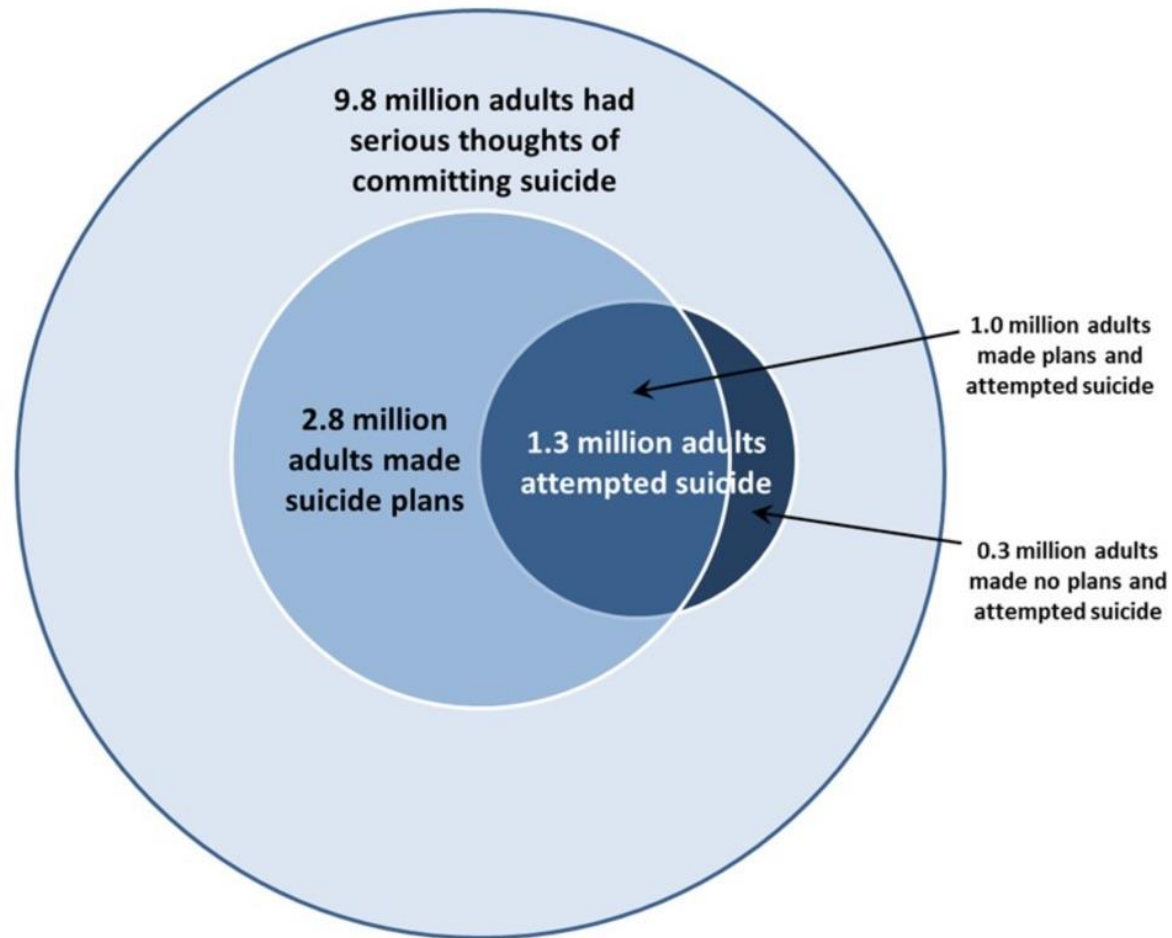
Or **1** every



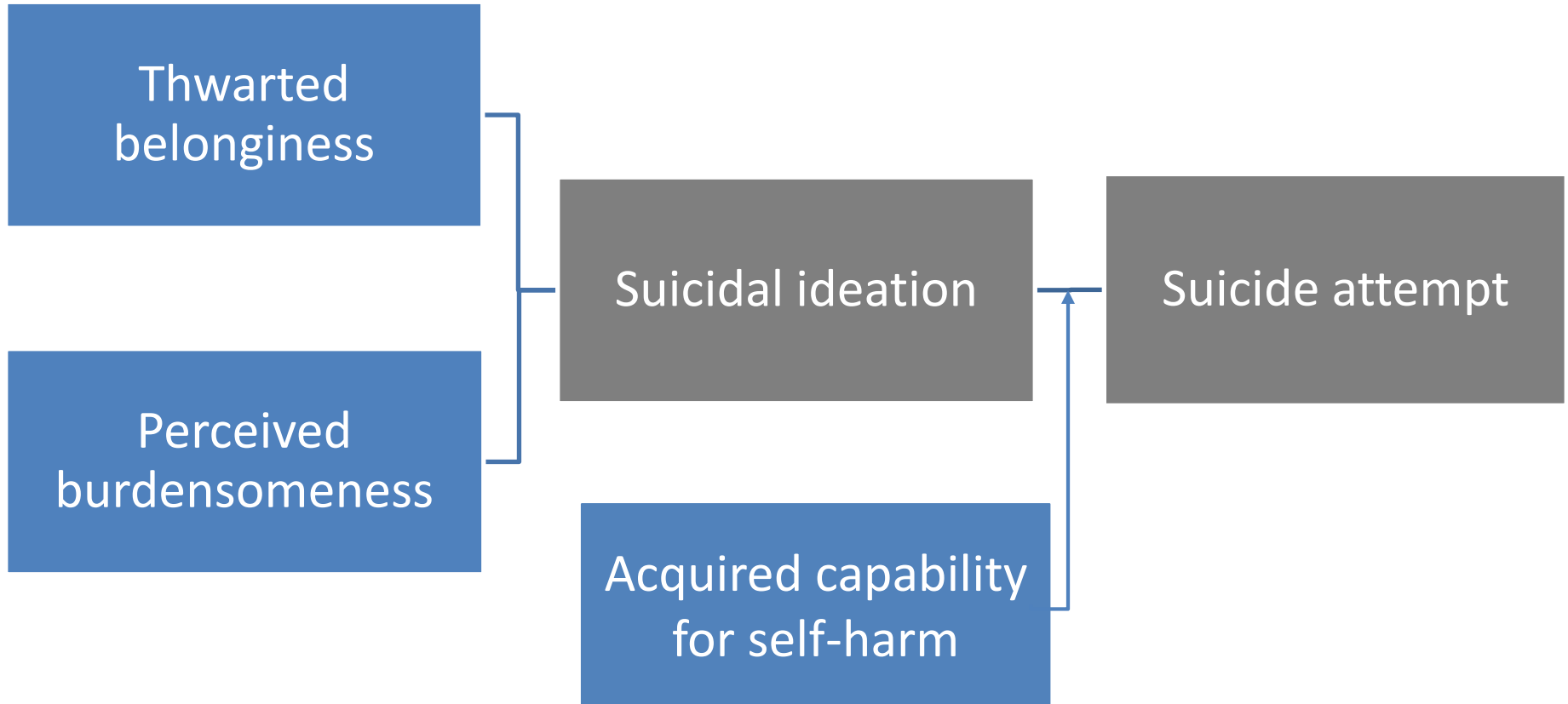
minutes

Past Year Suicidal Thoughts and Behaviors Among U.S. Adults (2016)

Data Courtesy of SAMHSA



Interpersonal Theory of Suicidal Behavior



Robin Williams Died by Hanging, Official Says

By Nicole Perlroth

Aug. 12, 2014

Robin Williams Died by Hanging, Official Says

By Nicole Perlroth

Aug. 12, 2014

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Robin Williams hanged himself in bedroom with a belt, sheriff says

 By JAMES QUEALLY AUG 12, 2014 | 11:35 AM   

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By  JAMES QUEALLY AUG 12, 2014 | 11:35 AM   

SFGATE <https://www.sfgate.com/bayarea/article/Investigators-Robin-Williams-hanged-himself-5683229.php>

Grim details of Robin Williams' death released by investigators

By Peter Fimrite, Evan Sernoffsky and **Henry K. Lee** Updated 8:18 am, Wednesday, August 13, 2014



Robin Williams Hanging, Officially

By Nicole Perlroth

Aug. 12, 2014

DAILY NEWS

NEW YORK'S HOMETOWN NEWSPAPER



Robin tied belt around his neck

Slashed wrist with a penknife

Wife slept alone in another room

Had just left 12-step program

PAGES 4,5,6,7

HANGED

Hollywood legend **Lauren Bacall** dead at 89 PAGES 10-11

TOPICS

'We do not believe it was an accident': Death of Aliso Viejo firefighter


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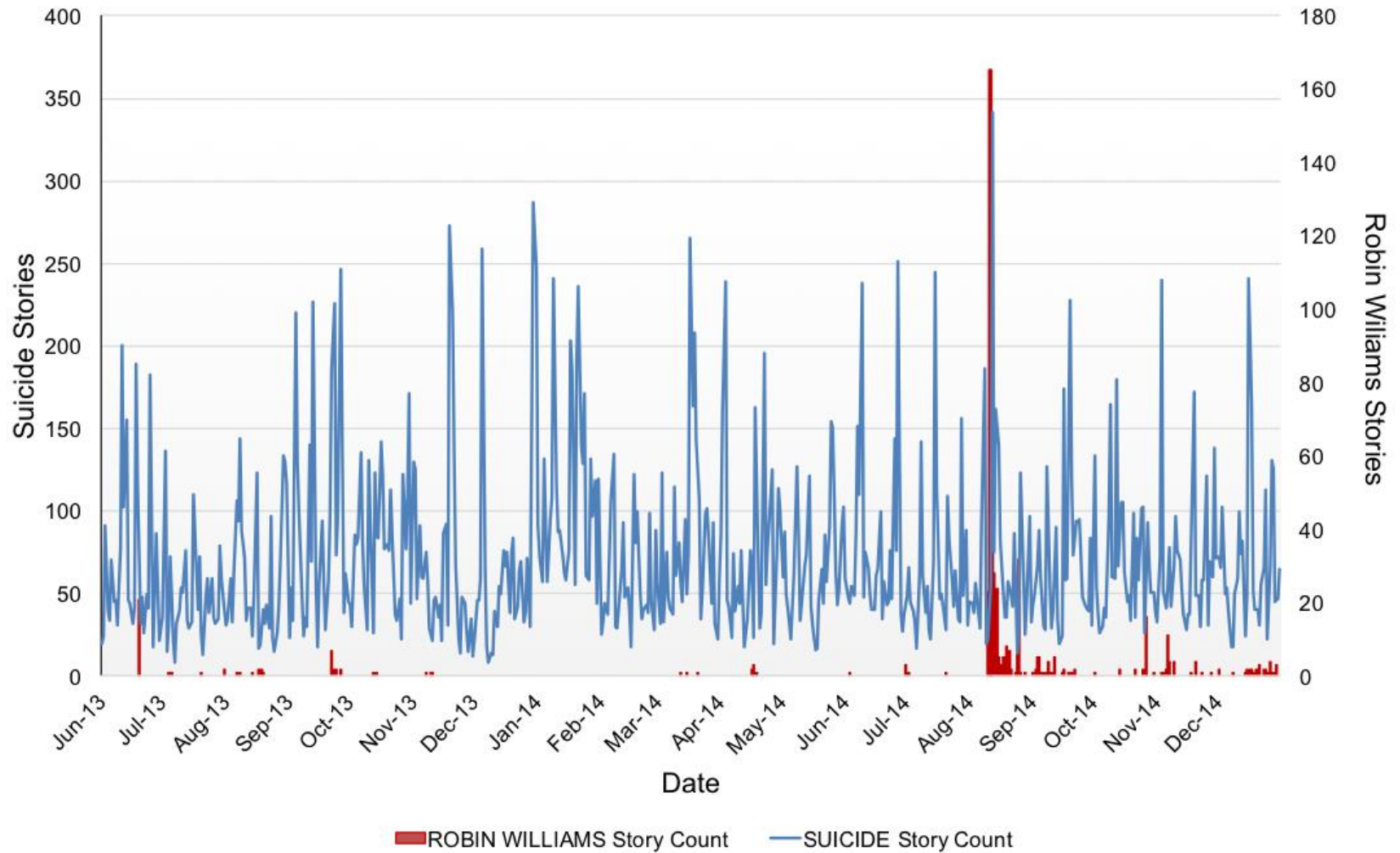
igators-Robin-Williams-hanged-himself-5683229.php

s' death released by

dated 8:18 am, Wednesday, August 13, 2014



News reports related to “Suicide” and “Robin Williams”, June 2013 - December 2014



Our study

- Did suicides increase in the months following Robin Williams' death?
- How many excess suicides occurred in the 4 months following Williams' death?

Study design: Interrupted time-series study

Monthly suicide count data in the U.S. from 1999-2015 from the CDC Wide-ranging Online Data for Epidemiologic Research (CDC WONDER)

- Sex: male/female
- Age: 12-19, 20-29, 30-44, 45-59, 60+
- Method: suffocation, cutting/piercing, poisoning, firearm, falls, all other methods

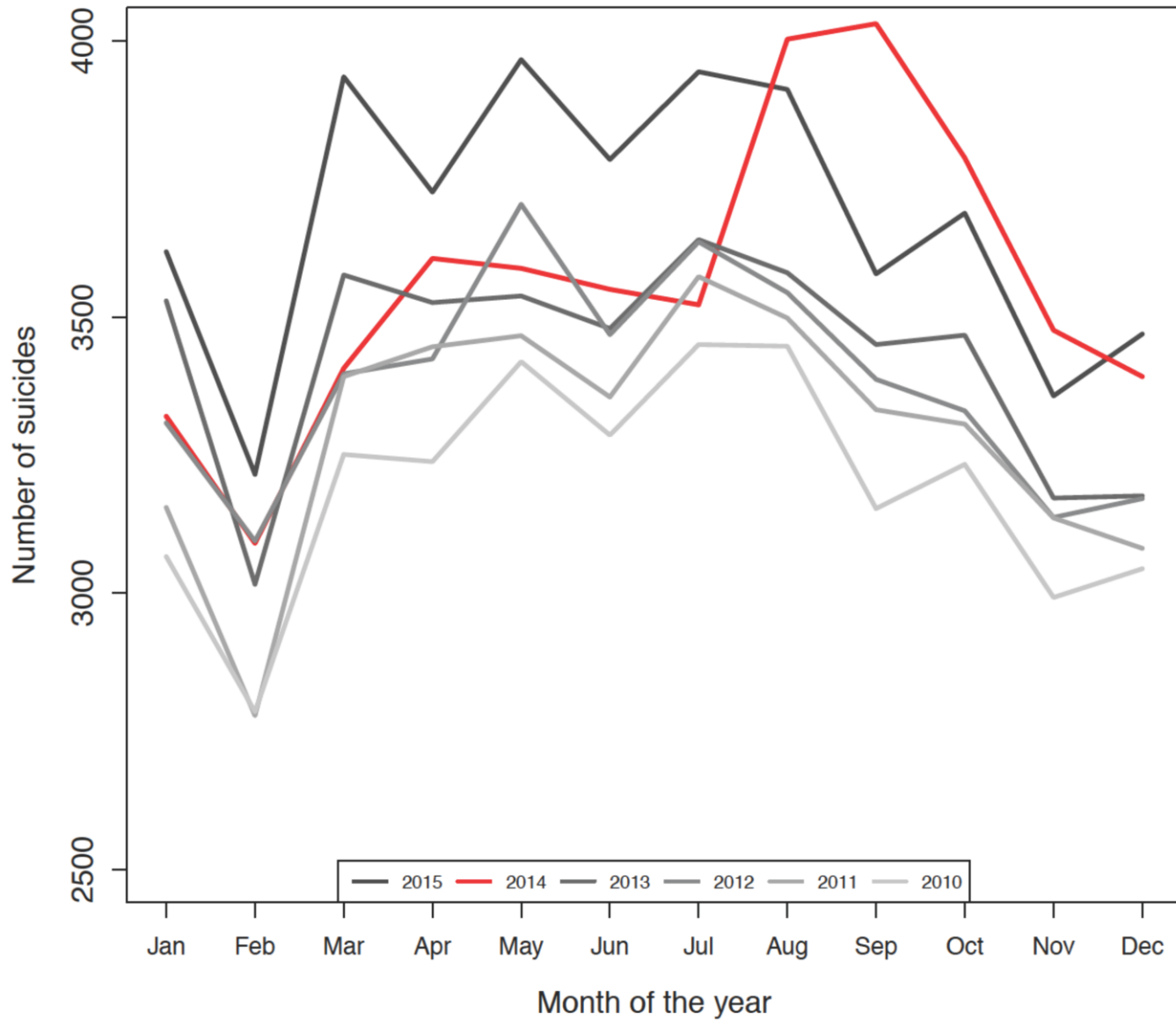
Study design: Interrupted time-series study

Seasonal autoregressive integrated moving averages (SARIMA)

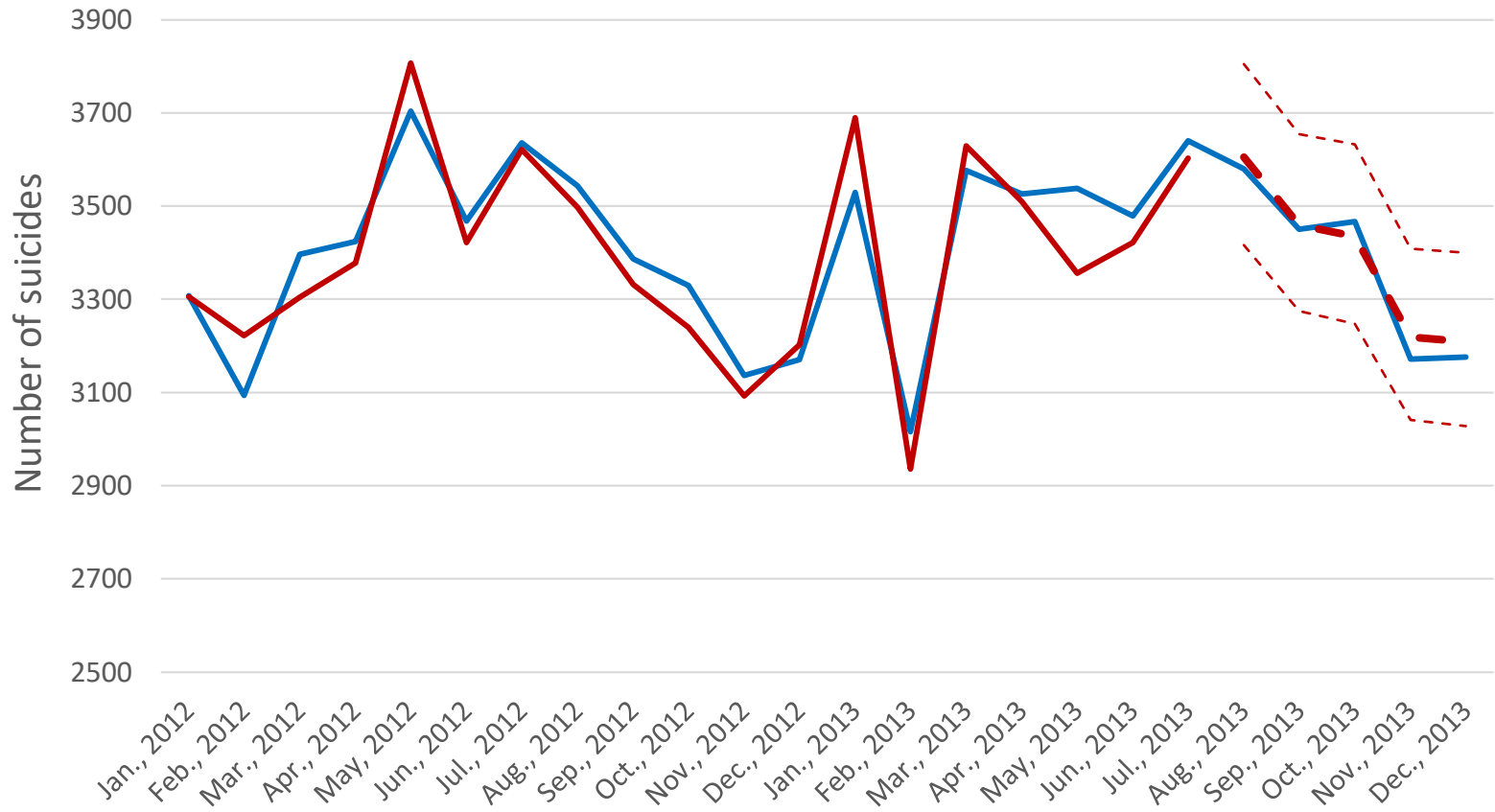
- Differencing removes linear trend and seasonal variation
- Autocorrelation and partial autocorrelation functions were used to identify best fitting AR and MA
- Compared AIC and BIC to identify best model

Best model: SARIMA(0,1,1)x(0,1,1)₁₂

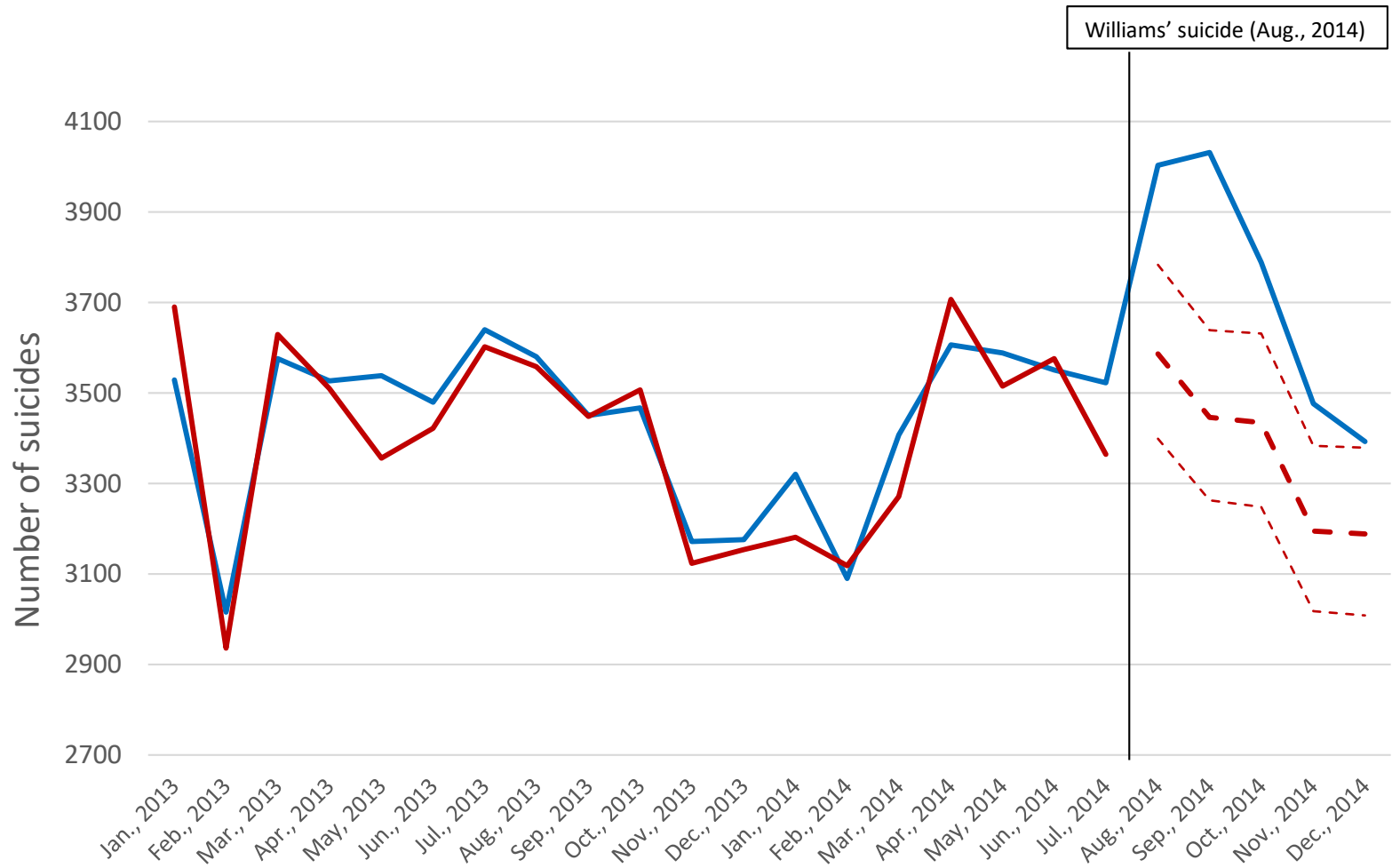
What did we find?



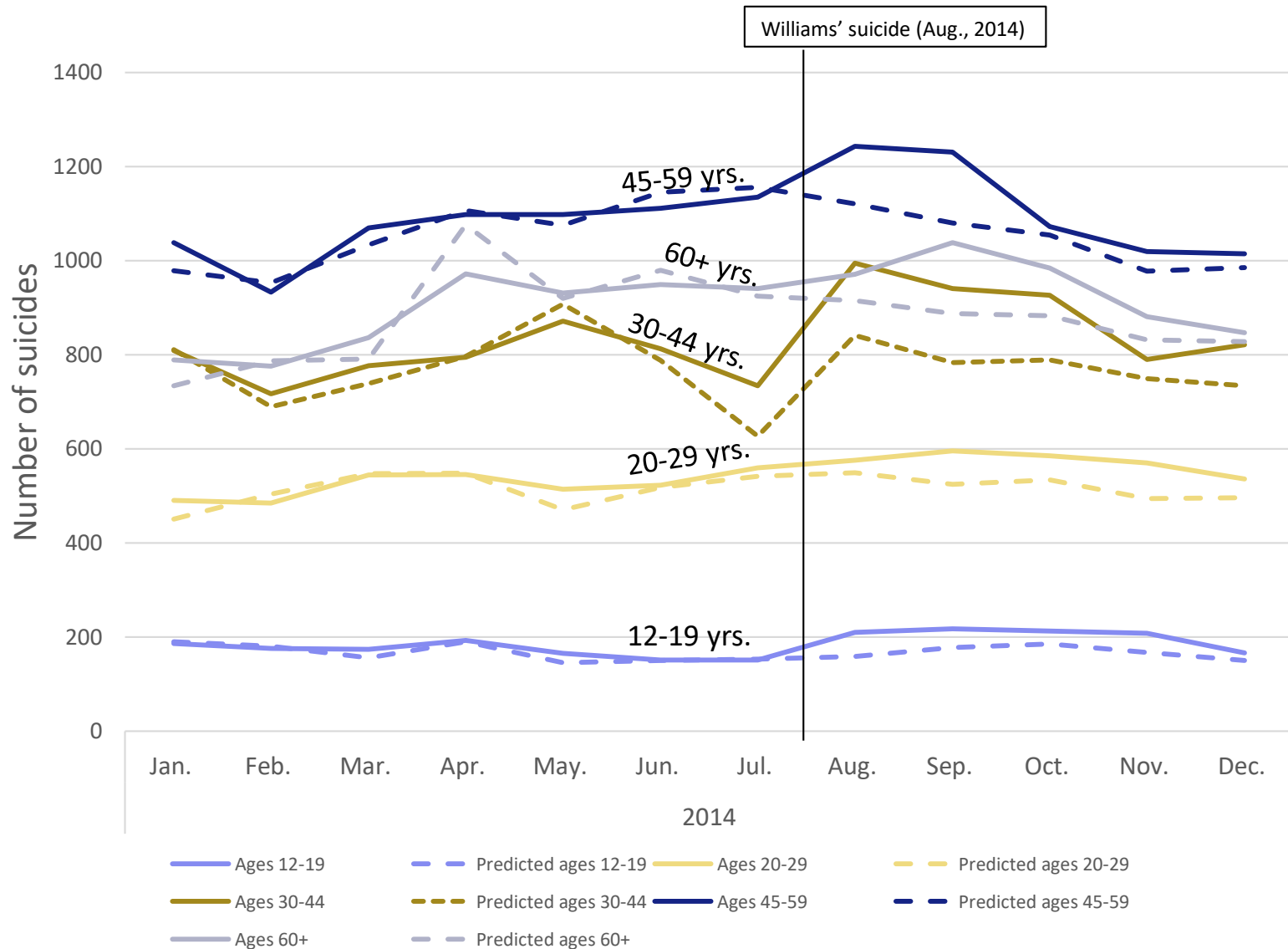
SARIMA(0,1,1)x(0,1,1)₁₂



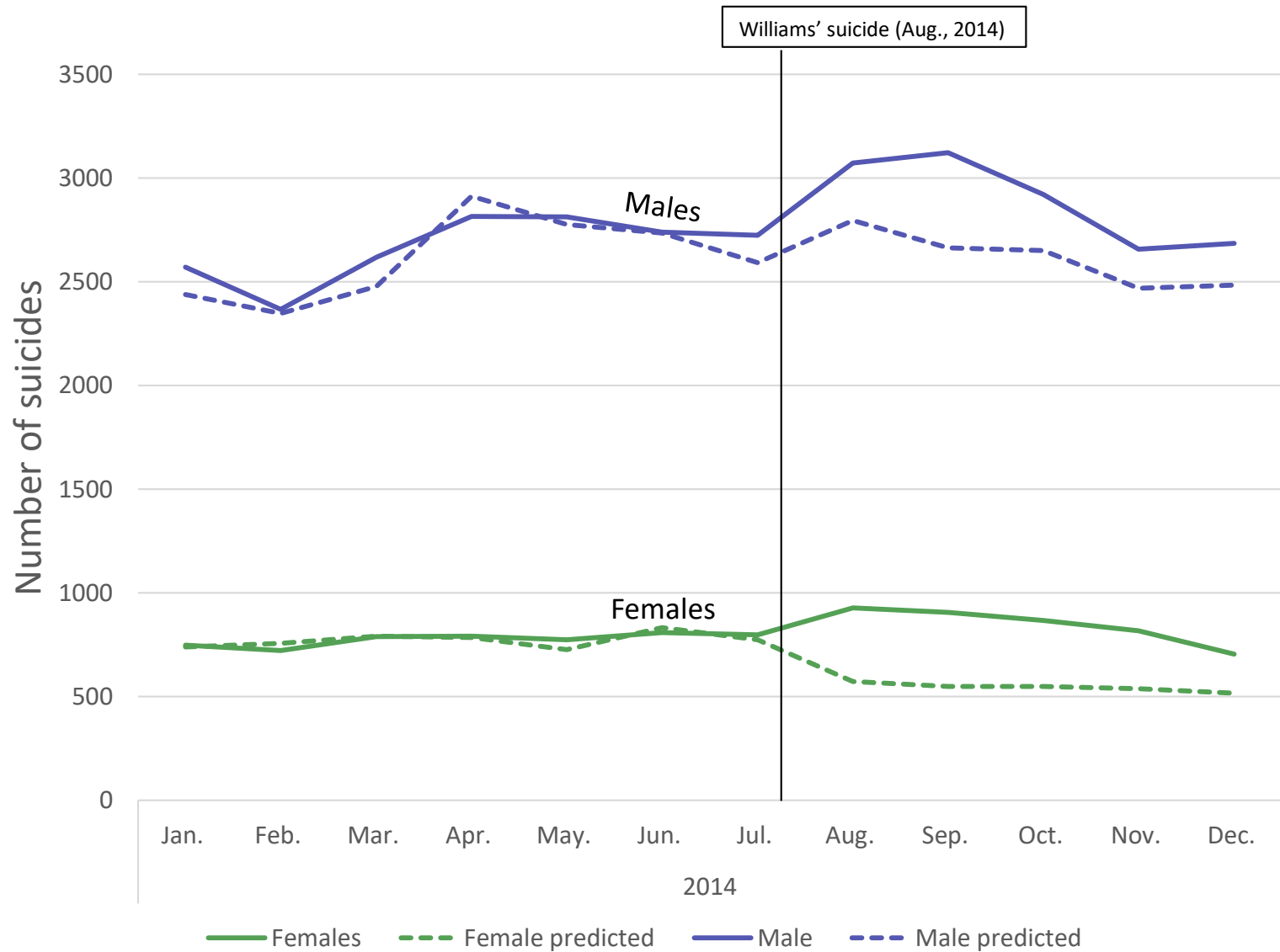
SARIMA(0,1,1)x(0,1,1)₁₂



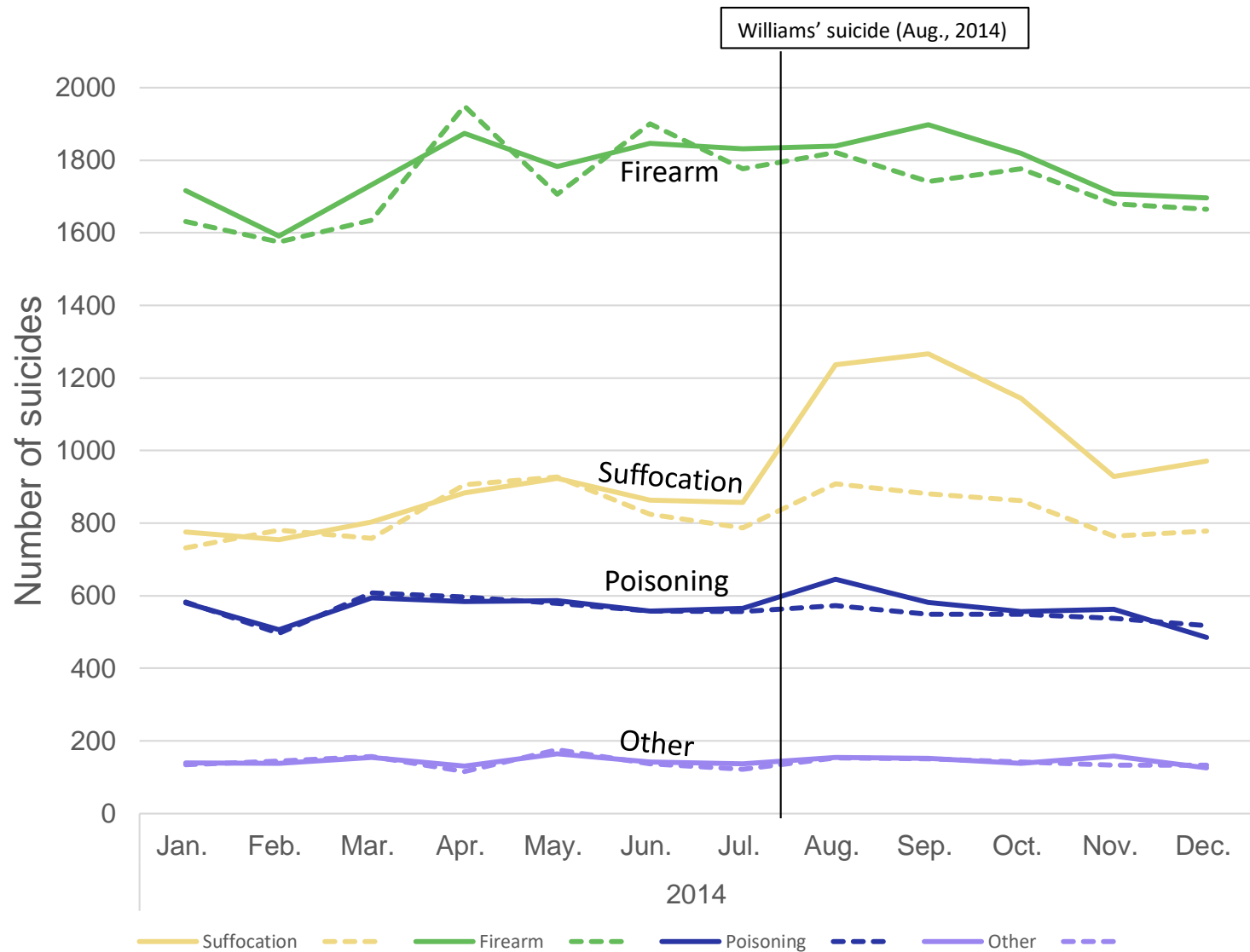
Age



Sex



Method



Summary

- 9.9% increase in overall suicides from August 2014 to December 2014
- Excess suicides were observed across gender and age groups
 - Greatest excess among males and 30-44 year old's
- Suffocation deaths were responsible for the vast majority of increases

Conclusions

- Suicide is a central threat to public health
- Celebrity suicides may stimulate high-risk segments of the population to move from ideation to attempt
- Media may positively or negatively influence imitation suicides

WHO Organization – Reporting on Suicide Guidelines

X Instead of This

✓ Do This

Big sensationalist headlines, or prominent placement (e.g., “Kurt Cobain Used Shotgun to Commit Suicide”)



Inform the audience without sensationalizing the suicide and minimize prominence (e.g., “Kurt Cobain Dead at 27”)

Quoting/interviewing police or first responders about the causes of suicide



Seek advice from suicide prevention experts

Including photos/videos or discussion of the location or method of death



Report the most recent CDC data and include hotline or local crisis phone numbers

Media's role in imitation suicides requires further investigation...

Media's role in imitation suicides requires further investigation...

The screenshot shows the top navigation bar of the Los Angeles Times website. It includes a 'TOPICS' menu, a search bar, the newspaper's name 'Los Angeles Times', a 'SUBSCRIBE' button (4 weeks for only 99¢), and a 'LOG IN' button. Below the navigation bar is a row of five news snippets, each with a small image and a headline. The main article is titled 'Linkin Park frontman Chester Bennington died by hanging, L.A. County coroner says'. The byline reads 'By VERONICA ROCHA JUL 21, 2017 | 11:15 AM'. There are social media sharing icons for Twitter, Facebook, and a general share icon.

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By RANDY LEWIS

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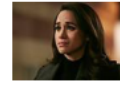
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ryers up after she
cuses him of
oking weed



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promises male booty



Meghan Markle's dad
to skip royal wedding
after staged photo
debacle

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coroner says

By VERONICA ROCHA

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By Morgan M. Evans, Fox News

May 1, 2018 | 10:59am



Avicii

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