Center for Surveillance, Epidemiology, and Laboratory Services



### **Clear Writing and Successful Navigation of Feedback**



### Morbidity and Mortality Weekly Report

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2018 CSTE MMWR Intensive Writing Training Course March 1, 2018



# Types of articles in MMWR Weekly

- Full Reports
- Outbreak Reports
- Notes from the Field
- Policy Notes
- Vital Signs
- CDC Grand Rounds
- Announcements
- QuickStats

# **Criteria for Publication**

- Appropriateness
- Originality
- Quality
- Timeliness
- Clarity

Generalist not specialist publication

# Requirements for *MMWR* Weekly Full Report/Outbreak Report

- Word limit: ~1400
- No traditional demarcations except for "Discussion" (e.g., no "Methods" and "Results")
- Reference limit: ≤10
- Tables, Figures and Boxes: ≤3
- Summary box

# **Full Report: Lead Paragraph**

- Similar to both newspaper lead paragraph (who, what, when, where, why, and how?) and abstract in medical journal.
- Serves as abstract in PubMed
- Limited to 150–200 words
- All information regarding methods, data sources, and results repeated elsewhere in report.

# Full Report: Lead Paragraph (continued)

- Background—What is the problem? Why is this worth writing about?
- Method of analysis—Who did what, using what data, and why?
- Key findings—Summarize 1 or 2 main results and any actions that resulted.
- Public health message—What should be done by public health practitioners or, if relevant, by clinicians or the public?

#### Characteristics of Fentanyl Overdose - Massachusetts, 2014-2016

Weekly/April 14, 2017/66(14);382-386





## Full Report: Lead Paragraph Background—What is the problem? Why is this worth writing about?

 Opioid overdose deaths in Massachusetts increased 150% from 2012 to 2015 (1). The proportion of opioid overdose deaths in the state involving fentanyl, a synthetic, shortacting opioid with 50–100 times the potency of morphine, increased from 32% during 2013– 2014 to 74% in the first half of 2016 (1–3). Full Report: Lead Paragraph Method of analysis—Who did what, using what data, and why?

To guide overdose prevention and response activities (WHY), in April 2016, the Massachusetts Department of Public Health and the Office of the Chief Medical Examiner collaborated with CDC (WHO) to investigate the characteristics of fentanyl overdose in three Massachusetts counties with high opioid overdose death rates.

Full Report: Lead Paragraph Method of analysis—Who did what, using what data, and why? (continued)

In these counties, medical examiner charts of opioid overdose decedents who died during October 1, 2014–March 31, 2015 were reviewed, and during April 2016, interviews were conducted with persons who used illicit opioids and witnessed or experienced an opioid overdose. (WHAT DATA)

## **Full Report: Lead Paragraph** Key findings—Summarize 1 or 2 main results and any actions that resulted.

Approximately two thirds of opioid overdose decedents tested positive for fentanyl on postmortem toxicology. Evidence for rapid progression of fentanyl overdose was common among both fatal and nonfatal overdoses. A majority of interview respondents reported successfully using multiple doses of naloxone, the antidote to opioid overdose, to reverse suspected fentanyl overdoses.

Full Report: Lead Paragraph Public health message—what should be done by public health practitioners or, if relevant, by clinicians or the public?

 Expanding and enhancing existing opioid overdose education and prevention programs to include fentanyl-specific messaging and practices could help public health authorities mitigate adverse effects associated with overdoses, especially in communities affected by illicitly manufactured fentanyl.

# **Question 1:**

Which of the following components of the lead paragraph of a Full Report is NOT repeated elsewhere in the report?

- a. Background
- b. Methods
- c. Key findings
- d. Public health message

# **Outbreak Report: Lead Paragraph**

- Serves as abstract in PubMed
- Establish problem—1–3 sentences describing existence of outbreak.
- Methods of investigation—What done, when, and by whom?
- Key findings—Summarize 1 or 2 main results.
- Public health response—Actions taken to stem outbreak.
- Public health message—State implications and recommend actions in response to investigation.

## Outbreak of Influenza A(H3N2) Variant Virus Infections Among Persons Attending Agricultural Fairs Housing Infected Swine — Michigan and Ohio, July-August 2016

Weekly/October 28, 2016 / 65(42);1157-1160



Rebekah S. Schicker, MSN, MPH<sup>1,2</sup>; John Rossow<sup>2,3</sup>; Seth Eckel, MPH<sup>4</sup>; Nicolas Fisher<sup>5</sup>; Sally Bidol, MPH<sup>4</sup>; Lilith Tatham, DVM<sup>5</sup>; Janice Matthews-Greer, PhD<sup>4</sup>; Kevin Sohner, PhD<sup>5</sup>; Andrew S. Bowman, DVM, PhD<sup>6</sup>; James Avrill, DVM, PhD<sup>7</sup>; Tony Forshey, DVM<sup>8</sup>; Lenee Blanton, MPH<sup>2</sup>; C. Todd Davis, PhD<sup>2</sup>; John Schiltz, DVM<sup>9</sup>; Susan Skorupski, DVM<sup>10</sup>; LaShondra Berman, PhD<sup>2</sup>; Yunho Jang, PhD<sup>2</sup>; Joseph S. Bresee, MD<sup>2</sup>; Stephen Lindstrom, PhD<sup>2</sup>; Susan C. Trock, DVM<sup>2</sup>; David Wentworth, PhD<sup>2</sup>; Alicia M. Fry, MD<sup>2</sup>; Sietske de Fijter, MS<sup>5</sup>; Kimberly Signs, DVM<sup>4</sup>; Mary DiOrio, MD<sup>5</sup>; Sonja J. Olsen, PhD<sup>2</sup>; Matthew Biggerstaff, MPH<sup>2</sup> (View author affiliations)





**Outbreak Report: Lead Paragraph** Establish problem—1–3 sentences describing existence of outbreak.

On August 3, 2016, the Ohio Department of Health Laboratory reported to CDC that a respiratory specimen collected on July 28 from a male aged 13 years who attended an agricultural fair in Ohio during July 22–29, 2016, and subsequently developed a respiratory illness, tested positive by real-time reverse transcription-polymerase chain reaction (rRT-PCR) for influenza A(H3N2) variant\* (H3N2v).

**Outbreak Report: Lead Paragraph** Establish problem—1–3 sentences describing existence of outbreak. (continued)

 ...The next day, CDC was notified of a child aged 9 years who was a swine exhibitor at an agricultural fair in <u>Michigan</u> who became ill on July 29, 2016, and tested positive for H3N2v virus at the Michigan Department of Health and Human Services Laboratory. Outbreak Report: Lead Paragraph Methods of investigation—What done, when, and by whom? Key findings—Summarize 1 or 2 main results.

 Investigations by Michigan and Ohio health authorities identified 18 human infections linked to swine exhibits at agricultural fairs.

## Outbreak Report: Lead Paragraph Public health response—Actions taken to stem outbreak.

**Outbreak Report: Lead Paragraph** Public health message—State implications and recommend actions in response to investigation.

To minimize transmission of influenza viruses from infected swine to visitors, agricultural fair organizers should consider prevention measures such as shortening the time swine are on the fairgrounds, isolating ill swine, maintaining a veterinarian on call, providing handwashing stations, and prohibiting food and beverages in animal barns.

Outbreak Report: Lead Paragraph Public health message—State implications and recommend actions in response to investigation. (continued)

 Persons at high risk for influenza-associated complications should be discouraged from entering swine barns.

# Full Reports and Outbreak Reports Summary Boxes

- What is already known on this topic?
- What is added by this report?
- What are the implications for public health practice?

 1–2 sentence response per question written in very clear style.

#### Increases in Drug and Opioid-Involved Overdose Deaths – United States, 2010-2015

Weekly / December 30, 2016 / 65(50-51);1445-1452

#### Summary

#### What is already known about this topic?

The U.S. opioid epidemic is continuing. Drug overdose deaths nearly tripled during 1999-2014. In 2014, among 47,055 drug overdose deaths, 61% involved an opioid. During 2013-2014, deaths associated with the most commonly prescribed opioids (natural/semisynthetic opioids) continued to increase slightly; however, the rapid increase in deaths appears to be driven by heroin and synthetic opioids other than methadone.

#### Increases in Drug and Opioid-Involved Overdose Deaths – United States, 2010-2015

Weekly / December 30, 2016 / 65(50-51);1445-1452

#### What is added by this report?

From 2014 to 2015, the death rate from synthetic opioids other than methadone, which includes fentanyl, increased by 72.2%, and heroin death rates increased by 20.6%. Rates of death involving heroin and synthetic opioids other than methadone increased across all demographic groups, regions, and in numerous states. Natural/semisynthetic opioid death rates increased by 2.6%, whereas, methadone death rates decreased by 9.1%.

### Increases in Drug and Opioid-Involved Overdose Deaths - United States, 2010-2015

Weekly / December 30, 2016 / 65(50-51);1445-1452

What are the implications for public		
health practice?		
There is an urgent need for a		
multifaceted, collaborative public health		
and law enforcement approach to the		
opioid epidemic, including implementing		
the CDC Guideline for Prescribing		
Opioids for Chronic Pain, improving		
access to and use of prescription drug		
monitoring programs; expanding		
naloxone distribution; enhancing opioid		
use disorder treatment capacity and		
linkage into treatment, including		
medication-assisted treatment;		
implementing harm reduction		
approaches, such as syringe services		
program; and supporting law		
enforcement strategies to reduce the		
illicit opioid supply.		

# Requirements for *MMWR* Weekly Notes from the Field

- Abbreviated reports of ongoing or recent events of concern to the public health community
- Early information, preliminary results, and other similarly incomplete information
- Word limit: ~500
- Reference limit: absolute minimum
- Tables, Figures and Boxes: ≤1

## *Notes from the Field*: Pan-Resistant New Delhi Metallo-Beta-Lactamase-Producing *Klebsiella pneumoniae* — Washoe County, Nevada, 2016

Weekly/ January 13, 2017 / 66(1);33



### Notes from the Field: Plague in Domestic Cats - Idaho, 2016

Weekly/ December 9, 2016 / 65(48);1378-1379



Ahmed M. Kassem, MBBCh, PhD<sup>1,2</sup>; Leslie Tengelsen, PhD, DVM<sup>2</sup>; Brandon Atkins, MS<sup>3</sup>; Kimberly Link, ScM<sup>3</sup>; Mike Taylor, MHE<sup>4</sup>; Erin Peterson<sup>2</sup>; Ashley Machado<sup>2</sup>; Kris Carter, DVM<sup>2,5</sup>; Scott Hutton, MPH<sup>2</sup>; Kathryn Turner, PhD<sup>2</sup>; Christine Hahn, MD<sup>2</sup> (<u>View author affiliations</u>)







# **Question 2:**

You want to describe lead poisoning among refugee children during the last five years in your state. What type of report would you write?

- a. Full Report
- b. Outbreak Report
- c. Notes from the Field

# Tips for Publishing in MMWR

- Read lots of MMWR reports
  - Familiarize yourself with format, style, and types of articles accepted
- Find an example article
- Get feedback by giving a presentation on your study
- Put yourself in the position of a reader
  - For MMWR, this should be a generalist, not a specialist

## **Common Errors**

- Failure to follow instructions for authors
- Poor organization
- Overly complex sentence structure
- Meandering discussion
- Use of jargon and too many acronyms

 Use of first person (MMWR is considered the "voice of CDC")

# **Question 3:**

Which of the following is NOT a common error in writing for MMWR?

- a. Failure to follow instructions for authors
- **b.** Clear focus
- c. Use of jargon
- d. Use of first person

## Strategies to navigate *MMWR* submission, review, clearance, acceptance, and production

### Morbidity and Mortality Weekly Report (MMWR)

MMWR	<u>CDC</u> > <u>MMWR</u>	
Publications +	Morbidity and Mortality Weekly Report (MMWR)	
Manuscript Submission	f 🏏 🛨	
Instructions for +	Current Weekly Opioid Reports	
Autnors	Outbreak of Fluoroquinolone-Resistant <i>Campylobacter jejuni</i>	
Contact Us	Infections Associated with Raw Milk Consumption from a	
Medscape CME	Herdshare Dairy – Colorado, 2016	
MMWR Continuing +	February 9, 2018	V
Education	A 2016 Colorado Diagnosis Delays 🖻	
State Health Statistics	outbreak was linked to	-

### Morbidity and Mortality Weekly Report (MMWR)

MMWR	<u>CDC</u> > <u>MMWR</u> > <u>Manuscript Submission</u> > <u>Weekly Publications</u>
Publications +	MMWR Weekly Manuscript Submission
About MMWR +	f У 🕂
Manuscript Submission -	The AMAIM/DW sold was a Cabeler One Manuscripts for manuscript submission and tracking Defersion submit your
Weekly Publications	manuscript, however, please read the instructions below <b>in addition to</b> the information provided.
Serial Publications	• Check your manuscript file against the Author Submission Checklist 🟂 . Complete the checklist and upload with your
Instructions for + Authors	submission.  Submit manuscripts online through ScholarOne Manuscripts 🖉 only. Manuscripts (initial submissions as well as
Contact Us	revisions) submitted by email will be returned.
Medscape CME	<ul> <li>You will receive an e-mail response acknowledging receipt of your manuscript. The response will include a manuscript number. Please refer to the manuscript number in all further correspondence.</li> </ul>
MMWR Continuing +	If you have any questions, please contact the journal at <u>MMWRq@cdc.gov</u> .

### Morbidity and Mortality Weekly Report (MMWR)

MMWR	<u>CDC</u> > <u>MMWR</u> > <u>Manuscript Submission</u> > <u>Weekly Publications</u>
Publications +	MMWR Weekly Manuscript Submission
About MMWR +	f 🎐 🕂
Manuscript Submission –	
Weekly Publications	manuscript, however, please read the ins <mark>tructions before in addition to their f</mark> ormation provided.
Serial Publications	• Check your manuscript file against the Author Submission Checklist 📆 Complete the checklist and upload with your
Instructions for + Authors	submission. • Submit manuscripts online through <u>ScholarOne Manuscripts</u> & only. Manuscripts (initial submissions as well as
Contact Us	revisions) submitted by email will be returned.
Medscape CME	<ul> <li>You will receive an e-mail response acknowledging receipt of your manuscript. The response will include a manuscript number. Please refer to the manuscript number in all further correspondence.</li> </ul>
MMWR Continuing +	If you have any questions, please contact the journal at <u>MMWRq@cdc.gov</u> .



### **ICMJE Form for Disclosure of Potential Conflicts of Interest**

#### Instructions

The purpose of this form is to provide readers of your manuscript with information about your other interests that could influence how they receive and understand your work. The form is designed to be completed electronically and stored electronically. It contains programming that allows appropriate data display. Each author should submit a separate form and is responsible for the accuracy and completeness of the submitted information. The form is in six parts.

SAVE

#### 1. Identifying information.

2. The work under consideration for publication.

Science Editor Review Jacqueline Gindler, MD Editor, MMWR Weekly

First series of reviews



- Determines if we think will be of interest to our readers
- If no CDC authors, prepares for review by CDC subject matters experts – CDC Clearance
- Usually comments to improve clarity and science from generalist perspective
- Respond as you would for peer-review

# **CDC Clearance**

- Outside authors are <u>not</u> required to have a CDC coauthor to submit their report.
- MMWR only publishes reports that have been cleared according to CDC and MMWR policies. Prior to submission, reports should be cleared by:
  - Health departments involved in report (for states usually state epidemiologist)
  - Private or public sector organizations at which any named contributor is employed

# **Navigating CDC Clearance**

- Respond as you would for peer-review
- Usually takes time (weeks to months)
- Editor, MMWR Weekly will be your point of contact
- Once cleared, your report can be provisionally accepted
- More reviews during production

# **Scheduling Report for Publication**



- Doug Weatherwax Team Lead
- Corresponding author must be <u>readily</u> available during 5 days of production process





# **Review during production**

- Often CDC Director/other senior leaders
- Office of the Associate Director of Science
- MMWR Editor-in-Chief and Editor, Weekly

- Level 1 (L1) must address or clearly explain rationale for not doing so
- L2 if data supports then include, otherwise do not
- L3 I'm curious, but decision to include or not rests with authors

### **FRIDAY**

**9–10 am** Authors are sent questions, comments, and/or suggested edits from reviewers of the unedited draft.

Any responses received by **12 pm** can be incorporated into FIRST PROOF.

**By 4 pm** Authors (and reviewers) are sent the FIRST PROOF and any supports (figures, tables, boxes).

### MONDAY

- **8 am** Deadline for authors to provide corrections or changes to FIRST PROOF.
- **9–10 am** Authors are sent questions, comments, and/or suggested edits from reviewers.
- Any responses received by **12 pm** can be incorporated into SECOND PROOF.

**12–2 pm** Authors (and reviewers) are sent the SECOND PROOF.

### **TUESDAY**

**8 am** Deadline for authors to provide corrections or changes to SECOND PROOF.

**9–10 am** Authors are sent the FINAL PROOF with any additional questions, comments, and/or suggested edits from reviewers.

**12 pm** Deadline for authors to communicate any FINAL corrections or changes.

Post-production of the issue begins.

### WEDNESDAY

**By 4 pm** An eBook (PDF) of the issue is released to the media, printer, and others, with contents <u>embargoed</u> until the issue is posted online at **1 pm** Thursday.

### **THURSDAY**

**1 pm** E-mail distribution of issue to subscribers and online posting on the *MMWR* website.

# **Question 5:**

### Which of the following is NOT true?

- a. Usually CDC clearance takes at least a month.
- b. There are multiple reviews by multiple CDC experts and leaders from submission through publication.
- c. You must be readily available during the entire 9-day production process.

# **Preparing for media**

If CDC author



- CDC might do press release
- CDC program clears communication messages
- Need to coordinate messaging with health department and other collaborators
- If <u>no</u> CDC authors
  - CDC will NOT do press release
  - Authors' organizations responsible for communication with media

# **MMWR** and Social Media

- Usually MMWR promotes reports on social media
- Jamey Giddens MMWR communications
- Requires appropriate images for social media and web
- Requires approved social media messages
- Ideal to have images and messages ready before First Proof



### Notes from the Field: Powassan Virus Disease in an Infant - Connecticut, 2016

Weekly/April 21, 2017/66(15);408-409





#### Notes from the Field: Powassan Virus Disease in an Infant - Connecticut, 2016

Weekly/April 21, 2017/66(15);408-409



## Questions

## For more information please contact: Charlotte K. Kent, PhD, MPH cgk3@cdc.gov

For more information, contact CDC 1-800-CDC-INFO (232-4636) TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

