

# Week 3: Begin Day 1

## Presenting Your Data

### Faculty Agenda with Instructions

#### Materials/Preparation:

Distribute:

- Participant Workbook and Week 3 USB flash drive

Equipment/resources:

- Slide projector
- Flipchart/markers/tape
- Extension cords (as needed)
- Wifi/internet access information
- Sign-in material, nametags

Printed material/handouts:

- Participant and faculty evaluation forms

**NOTE:** Timing for Day 1 is dependent on number of participant presentations – sample agenda is set for 15 participants, but option if more enrolled (or do not finish all on Day 1) is to have additional participants present both initial slides with daily homework on mornings of the following days. Important to let group know this at start of course (so they know that ALL will get a chance to present)

Time	Lecture/Activity
8:00	<b>Welcome and Introductions</b> <b>W3L1: Course Overview &amp; Expectations</b> (11 slides, 15min)
8:15	<b>Activity:</b> Participant Presentations – updates on status of current research (3hr 45min = 15 participants x 10-12 min each) <ul style="list-style-type: none"> <li>• 8-10 minute presentations + 2 minute discussion = 10-12 minutes each</li> <li>• Time may need to be adjusted based on number of participants in course</li> </ul>
10:00	<b>Break</b> (15min)
10:15	<b>Activity (continued):</b> Participant Presentations <ul style="list-style-type: none"> <li>• After last presenter for the morning completes presentation and discussion, wrap up activity with summary of next steps for week (and discuss plan for continued presentations next morning if needed so ALL present to group)</li> </ul>
12:00	<b>Lunch</b> (1hr)
1:00	<b>W3L2: PowerPoint Presentations</b> (30 slides, 45min)

1:45	<b>Small group work with mentors: (2hr 45min)</b> <ul style="list-style-type: none"> <li>• Break into assigned small groups to share with peers and faculty mentors</li> <li>• Mentors - have participants share what their primary goals are in terms of next steps to accomplish in preparing their abstracts, manuscripts and oral presentations for MOH and key areas they may need help with during the week</li> <li>• Mentors should identify any participants who may require extra time and guidance and schedule time for check-in/guidance during the week</li> <li>• Facilitate and encourage peer-to-peer interaction and support while mentors meet individually with participants with focus on 1) current status of analyses, tables/figures; 2) abstract; 3) revisions to PowerPoint presentation for MOH</li> </ul>
	<b>Break ad lib</b>
4:30	<b>End Day 1 (15min)</b> <ul style="list-style-type: none"> <li>• Review homework for Day 2: Revise/finalize PowerPoint presentation summarizing research project for MOH based on classroom feedback</li> <li>• Participants complete Day 1 evaluations</li> </ul>
4:45	<b>Faculty Debrief</b>

## Week 3: Welcome!

### Course Overview & Expectations

CDC Operations Research Course  
Add place and date  
Add presenter name & affiliation



**Title: W3L1 Course Overview and Expectations**

**Time: 15 minutes (11 slides)**

**Reading: None**

*[Note: Treat this session as welcome and very brief overview of what participants will learn to set the stage for Week 3]*

Special thanks to...

- Add information based on course organization
- [Good time to also introduce any faculty, partners or participants new since Week 2.]

### Course organization

We are in week 3 of 3:

- **Week 1:** Fundamentals, study design, protocol, data collection
- **Week 2:** Data analysis
- **Week 3:** Communicating the study to others



- This is the final week of this course where you learn how to communicate your study findings to influence practice.

## Slide 4

### Goals of week 3

- Draft a clear, concise manuscript which communicates the findings from your study
- Outline steps for disseminating the results of the research
- Determine plan for using the results to impact program policy and/or practice



- The curriculum we will cover this week will help you hone your skills in writing up your research.
- By the end of the week, you should have a draft manuscript and a list of ideas for next steps for using the results of your research to impact program policy and/or practice.

## Slide 5

### Steps in the OR process

- What you've accomplished so far –
    - Identified a research question
    - Designed study to answer the question
    - Submitted protocol to ethics review board
    - Developed data collection instrument(s) and management plan
    - Conducted study and collected data
- } **Level 1**
- Cleaned data
  - Analyzed data
  - Developed tables and figures
  - Prepared draft abstract
- } **Level 2**

- Let's take a step back to see where we've come from and how much you have done already...
- *[Review slide content]*

## Slide 6

### Steps in the OR process (2)

- What you will be doing next –
    - Honing scientific writing skills
    - Disseminating results/findings
    - Integrating the results back into your program
- } **Level 3**

- This week is all about writing up the work you've accomplished and planning on how to disseminate the findings from your study to impact program performance, policy, or change.

## Slide 7

### This week you will...

- Present a brief overview on the status of your project
- Learn about scientific writing and begin drafting your manuscript
- Participate in small group discussions to gain perspectives and input on each section
- Define your next steps for disseminating the results of your study

- *[Review slide content and course agenda]*

## Slide 8

### Scientific manuscript components

- Introduction
  - Opening – Define the context and characters
  - Background – Present what is known and unknown
  - Challenge – Specific question/hypothesis or study goals
- Methods
  - Describe what you did
- Results
  - Describe your findings
- Discussion
  - Examine what the findings contribute to existing knowledge
  - Conclusion – Summarize/recap the “take home message”

- The specific components of manuscript writing that we will cover include: *[Review slide content]*

## Slide 9

### Maybe you've heard the saying...



**But why does it matter?**

- *[Review slide content]*

### Having your work matter, matters!

- Present findings and recommendations from your OR project to the NTP and/or local TB program
- Develop findings into abstract and manuscript for publication in scientific peer-reviewed journals

➔ Use information to make improvements in your TB program

- You've invested a lot of time, energy and passion to get to this point. The next step is determining how to get your message out.
- In order to influence practice in your field of study, you must share the findings of your work.
- Some methods, such as publishing in a scientific, peer-reviewed journal, have broader reach and influence than other methods.
- At a minimum, your findings should be shared and discussed locally to establish how your research can inform and be used to improve program performance.

### Let's get started!



- [END]

Slide 1

## PowerPoint Presentations

CDC Operations Research Course  
Add place and date  
Add presenter name & affiliation



**Title: W3L2 PowerPoint Presentations**

**Time: 45 minutes (30 slides)**

**Reading: None**

Slide 2

### Oral presentations

#### ■ Before you begin...

- Know your audience (who, why)
- Incentive (why they should know)
- Big picture (where are you going)



- If you know who your audience is, you can at least try to anticipate what its expectations may be. Usually this includes the format, its substance as well as the style.
- For your homework tonight, you'll be updating your presentation with the Minister of Health audience in mind.

Slide 3


### Oral presentations (2)

#### ■ Creating the presentation

- Organize the talk
- Create visuals
- Rehearse (for timing)
- Deliver



- *[Review slide content]*

Slide 4	<p><b>Presentation organization</b></p> <ul style="list-style-type: none"> <li>▪ Title slide</li> <li>▪ Opening <ul style="list-style-type: none"> <li>• Why, what, how (Introduction, Objectives)</li> </ul> </li> <li>▪ Body <ul style="list-style-type: none"> <li>• What you did (Methods)</li> <li>• What you found (Results)</li> </ul> </li> <li>▪ Closing <ul style="list-style-type: none"> <li>• Restate what you said (Conclusions)</li> <li>• What you want them to <b>do</b> (Recommendations)</li> </ul> </li> <li>▪ Questions <ul style="list-style-type: none"> <li>• Listen!</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <i>[Review slide content]</i></li> </ul>
Slide 5	<p><b>Title slide</b></p> <p style="text-align: center;"> <b>Title of my study</b>  Names of all authors  Institutions of the authors </p>	<ul style="list-style-type: none"> <li>• The title slide should contain the name of your study, list of authors, and their institutions.</li> <li>• Keep it simple.</li> <li>• When giving your presentation, the title slide holds the space for you to thank the Chair of the session, or the individuals who invited you to present, AND connect with your audience.</li> <li>• After your statement of thanks for the invitation to present, look directly at the audience and tell them what you will be presenting.</li> <li>• <i>Example:</i> “Today I am presenting the results of our study on the risk factors for xyz in such and such population”</li> </ul>
Slide 6	<p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>▪ Public health importance <ul style="list-style-type: none"> <li>• global → specific</li> <li>• “Why should I care?”</li> </ul> </li> <li>▪ State of knowledge/justification for research</li> </ul> 	<ul style="list-style-type: none"> <li>• Next, you need to explain why you did your study.</li> <li>• Be sure to mention what was unknown at the time you started your study.</li> <li>• Keep the background/introduction to a minimum: usually 1-3 slides.</li> </ul> <p><i>[Image source: kai Stachowiak/PublicDomainPictures.net]</i></p>



## Objectives

- Aims/purpose of your research (objectives)

### Example:

**Aim 1:** To investigate the effect of an opt-out approach to hepatitis B birth dose vaccination on hepatitis B vaccination uptake in Papua New Guinea and the Solomon Islands.

**Aim 2:** To determine hepatitis B transmission rates to infants randomized to the opt-out approach for hepatitis B vaccination versus infants in the control groups at 12 and 24 months of life.

- Research objectives usually follow on a separate slide, and methods follow immediately afterwards.
- In some circumstances, when you have multiple study objectives (as shown in the example here), it may be clearer to separate the objectives and to present the methods associated with each individual objective to make clear the different aspects of your study and the methods associated with each.

## Methods

- Clear description of methods used to obtain results
  - Study design
  - Study sample
  - Independent/dependent variables and measures
  - Statistical analysis
- Diagrams/flow charts better than text

- Tell the audience what you did.
- Be sure to describe how you defined your variables and analyzed your data.
- When possible use visuals, such as diagrams, flow charts, or images, that convey your methods.

## Results

- Characteristics of subjects

### Example:

	Cases (n = 140)	Controls (n = 140)
	<i>Percent or mean <math>\pm</math> SD</i>	
Age (years)	68.7 $\pm$ 9.6	69.3 $\pm$ 10.3
Sex (male)	56%	56%
Race (white)	74%	72%
Smoker (40+ pack-years)	39%	26%
Alcohol use (5+ drinks/week)	14%	9%
Body mass index (kg/m <sup>2</sup> )	29.3 $\pm$ 12.2	27.4 $\pm$ 11.6

- The results slides usually will start with a brief overview of the characteristics of your study subjects and, when appropriate, maybe also what happened to them during the study.

### Results (2)

- Concise description of **key** results
- Graphical/visual representation with appropriate labels

#### Example:

Variable	Relative Risk (95% Confidence Interval)
Smoker	1.9 (1.2 – 2.9)
Alcohol use	1.3 (0.9 – 2.0)
Obese	1.5 (0.7 – 3.3)

- Most of the emphasis, however, should be placed on covering what you found, the key results related to your research question.
- Try to anticipate what questions your audience may have related to your findings.

### Limitations & conclusions

- Recognize study limitations
- Summarize results – **main findings**
- Answer questions asked in introduction
- Relate questions with objectives and hypothesis

- All studies have limitations. Let your audience know that you were aware of them and explain what you tried to do to address them.
- Try to fit your conclusions into just one or two slides.
- Emphasize your main findings.

### In a nutshell...

- Tell them what you're going to tell them
- Tell them
- Tell them what you told them



- *[Review slide content]*

### General presentation tips



- Presentation, not a speech
- Will never have enough time → select important material carefully
- Slides are intended as **cues**
  - Do not put everything you wish to say on the slide! (otherwise you are expendable)
- Give punchline first

- Simplify and limit the number of words on each slide. Use key phrases and include only essential information.

### General presentation tips (2)

- Never apologize
- Be credible, honest
- Anticipate questions
- Respect audience intelligence



- Don't apologize for anything in your presentation. If you are thinking of including a table or graph, and you think may be hard to read or understand, DON'T USE IT.

*[Image source: Steven Lilley; Creative Commons]*

### Visuals

- Simple, to the point
- Use as many figures, diagrams, and illustrations as possible
- **Mark highlights**
- Avoid using showy transitions (e.g., text fly-ins)

- Use images (tables, graphs, figures, diagrams) that reinforce and compliment your message.
- Mark content that you want the audience to take notice of. You can circle data or text, or simply bold it or make it a different color.
- **[Slide animation]** Click to make box around text appear.

### Visuals (2)

- No more than 6 lines of text per slide
  - Bullet point, not sentences
- Font **no smaller than** 20 pt
- Cite when appropriate



- *[Review slide content]*

*[Image source: Anne Warner/Flickr]*

### Visuals (3)

- Use of color
  - Different color text for emphasis
  - Contrasting color for text and background
    - Dark text on light or white/yellow on dark blue
  - Avoid too many or flashy colors
  - Line graphs – 2pt or wider; patterns (dots, triangles)



- *[Review slide content]*
- When using colors in graphs, remember some of the audience may be unable to distinguish the difference between red and green. If these colors are being used together, consider using a “pattern fill” for one of these two colors.

### Preparation

- May help to write out what you plan to say for each slide
- Practice, practice, practice
  - With live audience
  - In room if possible
  - Timing yourself
- Backups of presentation
- Check equipment



- *[Review slide content]*
- Have a backup of your presentation and a plan B in case you run in to technical problems, a power outage, etc.

## Slide 19

### Keep your message in mind

- Single
- **O**verriding
- **C**ommunication
- **O**bjective



- **Bottom line:** What do you want your audience to take away from your research?
- Have your **SOCO in mind** BEFORE communicating your results with any audience

- [Review slide content]

[Image source: Adapted from image by Nick Youngson CC BY-SA 3.0 Alpha Stock Images; Creative Commons]

## Slide 20

### Delivery

- Eye contact (with all)
- Speak to audience, not screen
- Body control, placement, language
- Know the room and equipment
- Project voice
- Don't read



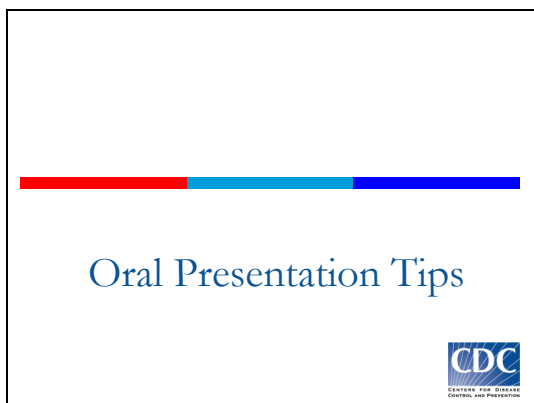
- [Review slide content]

## Slide 21

### Things to remember...

- You know **your research** better than anyone else
- It's okay to say "I don't know"
- Never be afraid to pause as long as it is clear you are doing it intentionally (e.g., in response to a question)

- [Review slide content]



### Presentation tips to maximize being “heard”

- **Audience:** make presentation appropriate, relevant, and address needs and interests of audience
  - A policymaker may want to hear advice on whether to expand, contract, or change a program
  - A program manager may want to know about methods, structure, technique, and staff patterns

- *[Review slide content]*

### Presentation tips to maximize being “heard” (2)

- **Acceptable:** Create an atmosphere that enhances acceptability of criticism or negative feedback
  - Positive reinforcement more effective in changing behavior
  - Talk first about *what is going right*
  - Rather than focus on the judgmental quality of the information, *focus on the use of the information* to improve the program

- Difficult to hear negative or critical information – unpalatable
- *[Review slide content]*

Slide 25

**Presentation tips  
to maximize being “heard” (3)**

- **Believability/credibility:** Important, especially if findings contradict intuitive ideas of staff or community
  - Enhanced by maximizing the quality and precision of methodology to gather, process, and integrate information
  - Also affected by credibility of persons gathering and interpreting the data
  - Helpful to directly involve users in the OR process early on

- *[Review slide content]*

Slide 26

**Presentation tips  
to maximize being “heard” (4)**

- **Clarity:** Present data clearly
  - Avoid technical jargon
  - Easily understood
  - Use visual displays and charts to supplement narrative

- *[Review slide content]*

Slide 27

**Presentation tips  
to maximize being “heard” (5)**

- **Discussion:** Workshops or discussions more effective than written reports
- **Interpretation**
  - Interpret data within appropriate context for audience
  - Easy to understand what the implications are and the specific action you expect/want to take place as a result of findings
  - Be sure to recognize the limitations of your data (methodology, data collection, analyses)

- *[Review slide content]*

## Slide 28

### Presentation tips to maximize being “heard” (6)

- **Pace findings**
  - Only a limited amount of information can be assimilated by an individual at any one time
  - Focus on the data most relevant to decision making
- **Ideological resistance**
  - If organization committed to specific ideology, difficult to overcome
  - Involve persons who support ideology in careful examination and dialogue of issue

- *[Review slide content]*

## Slide 29

### Presentation tips to maximize being “heard” (7)

- **Reducing disruption**
  - Staff perception that data collection involves disruption of ongoing activities
  - Use other staff (receptionists, data aides, etc.) to collect simple pieces of information
  - Make any changes to information collection, the program, etc., as easy as possible; make sure any additional forms are necessary/useful
  - Identify ways to make any additions/amendments beneficial to the staff and patients in day-to-day

- *[Review slide content]*

## Slide 30

### Summary

- Presentation should include:
  - Title and names/affiliations of investigators
  - Background/Introduction
  - Methods
  - Results
  - Limitations and Conclusions
- Use images and color that support the messages you want to convey
- Practice and time presentation; anticipate questions your audience may have

- *[Review slide content]*
- *[END]*