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A Quarterly Insight on the Services our Division Offers

# DEB quarterly

client thoughts >>>

**Dr. Tom Blok, Assistant Dean for Clinical Research Operations**  
 Interim Director for Epi & Bio (Mar 2017 – Nov 2017)

"Since I arrived at WMed a couple of years ago, I have had opportunities to work with the Division of Epidemiology and Biostatistics and have found the group consistently eager to help and engaged. Subsequently, I was able to serve as interim director of the division for several months and came to a greater appreciation of the skills and scope of work in which the group engages. Now that Dr. Diaz has assumed leadership of the group, I am looking forward to even greater things from them."



## Active Citizenship Service Project WMed Students, Class of 2020!

By: Dr. Ransome Eke, MD PhD

Excellent, innovative, impactful, impressive and pioneers were common words used to describe the final Active Citizenship (AC) service projects presented by WMed Students (Class of 2020), at the Students forum held on February 26 and 28, in the W.E.

Upjohn M.D. Campus auditorium.

The Active Citizenship is an 18 months rotation curriculum designed to provide service learning experience to WMed medical students, as specified by the LCME for medical education training. The AC curriculum has evolved over the year to provide our students a pleasant learning experience as they serve several communities within Kalamazoo county. Rather than an IRB level research engagement and community service, the current change in AC curriculum requires our students to provide community service and develop projects that would benefit the different community sites and the population they serve. We also hope that this new structure will assist our students to better understand the social determinants of health in the population as well as prepare them to be health advocates, as future physicians.

EXCELLENT,  
 INNOVATIVE,  
 IMPACTFUL,  
 IMPRESSIVE AND  
 PIONEERS

The class of 2020 did a phenomenal job in the quality of services they provided, and projects developed in various community sites. The projects ranged from organizing health screening programs, developing health literacy curriculum to identifying barriers to healthcare access including HPV vaccination and reproductive health services. We are so proud of our students as they displayed professionalism, creativity and maturity during the rotation. The Division of Epidemiology and Biostatistics is excited to be associated with these efforts undertaken by the medical students. The division provided support such as conception and development of project ideas, designing of surveys, collection and analysis of data. Going forward, the Active Citizenship Student Forum is anticipated to be an annual event to mark the end of the rotation. I look forward to another exciting moment as we keep building on what our students have displayed.



for the win >>>

# Prize-Winning Posters

As you get ready for Research Day, follow these simple tips to assemble an eye-catching poster. Posters are visual representations of your work. They are not meant to be cluttered with words, but to display your work in an easy to interpret manner using, figures, pictures or graphs. The main goals of presenting a poster are to educate others about your work, to garner feedback, network with peers, and promote yourself.



## Preparation

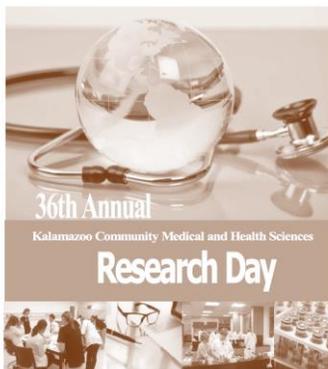
poster advice >>>

## Tips for Poster Design:

Prepare a brief 5-minute overview of your poster for conference attendees. Be sure to mention:

1. The rationale behind your work
2. How your work is a novel contribution to the field
3. Methods (or case history)
4. Results
5. Major conclusion

1. Determine how your work could be best visualized
2. Reduce text: lists are better than paragraphs
  - a. Try to limit each section to 200 words
3. Your poster will be read from 5 feet away, ensure appropriate sizing of text
  - a. Recommendations:
    - i. Title: 85pt
    - ii. Authors: 50pt
    - iii. Subheadings: 36pt
    - iv. Body Text: 24pt
    - v. Captions 18pt
4. Make the design flow logically for the reader
  - a. Typically columns from left to right
5. Use color to attract
  - a. Limit to 3-5 colors
6. The title should be catchy and tell the reader the main focus of the work
7. Be sure to highlight the novelty/originality/ message of your work
8. Make sure it is professional looking
  - a. Proof read for typos and errors
  - b. Get feedback from peers and mentors

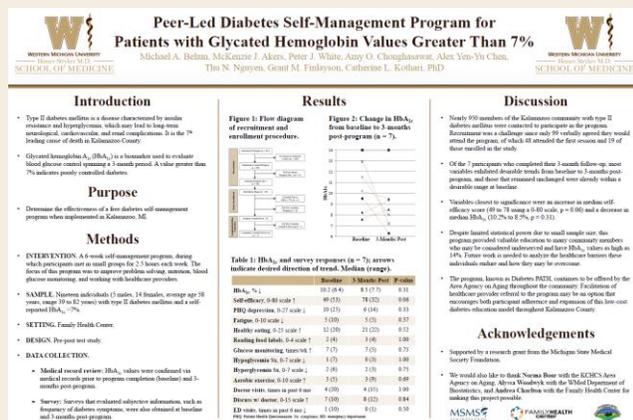


Research Day Poster Templates can be found on Sharepoint. Below are hyperlinks for easy access:

- [Research Day Template 1](#)
- [Research Day Template 2](#)

Need more poster help? Contact Dr. Laura Bauler for assistance:

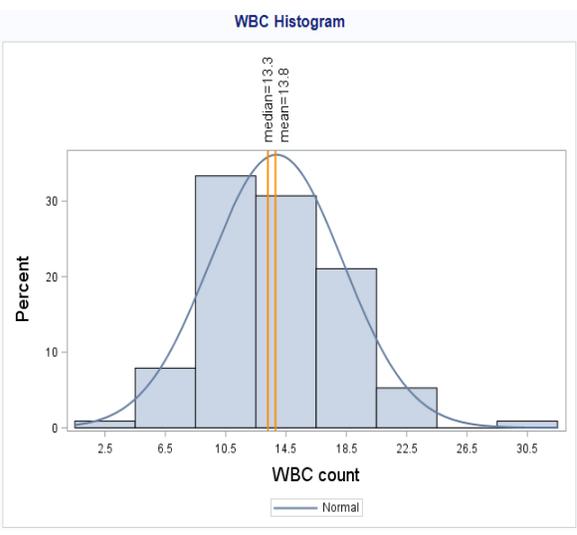
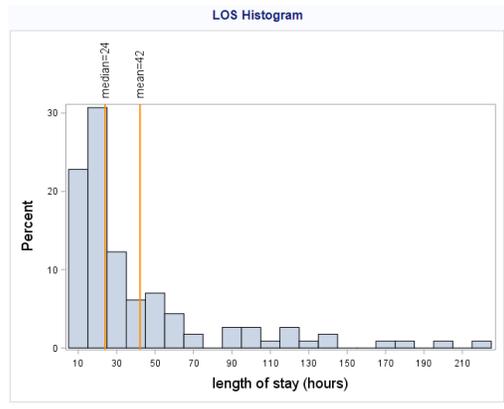
[Laura.Bauler@med.wmich.edu](mailto:Laura.Bauler@med.wmich.edu)



# Just because you're in the middle doesn't mean you're average

By: Duncan Vos, MS

The mean and median are single-number summaries that describe the central tendency of a set of values, however, there are situations in which it is much more appropriate to report one over the other. Appropriateness of use depends on the distribution of the set of values.



If the distribution is non-symmetrical, highly skewed, and contains a number of extreme values, then the median is a more representative measure, and when the distribution is symmetrical, the mean is generally more suitable.

For example, suppose we wish to report the appropriate measure of central tendency for a set of patient data that contains the recorded length of stay (LOS) and white blood cell count (WBC). We plot a histogram of LOS and WBC to assess the distribution. In the histogram of LOS, we notice that the distribution of LOS values is fairly symmetrical and the normal curve overlay seems to represent the distribution rather well. The mean and the median are about equal, which further indicates that the distribution is symmetrical. In this case, since the distribution is fairly symmetrical, the mean is the more favorable measure.

Remember, the mean and the median are measures of central tendency of a continuous measurement. Along with the mean and median measures of central tendency, measures of spread such as standard deviation and interquartile range are typically reported. The mean is accompanied by the standard deviation and the median by the interquartile range (IQR). When the distribution is non-symmetrical or highly skewed then the median (IQR) is most appropriate. Otherwise, for rather symmetrical distributions, and especially for the normal distribution, the mean (standard deviation) are more suitable.

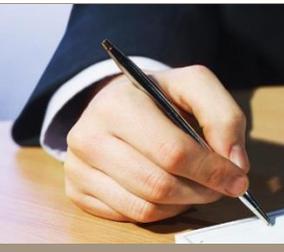
## Histogram of LOS

In the histogram of LOS, we notice that the distribution of LOS values is non-symmetrical and right skewed, and there are a number of higher extreme LOS values. These extreme values pull the mean much more so than the median. In this case, since the distribution is very right skewed (which LOS typically is), the median is a more representative summary of the set of recorded LOS values. This is because the median is more robust to extreme values than the mean.

**Data Bytes** 5 Reasons to Use REDCap for Your Study By: Heather Rauch

- SECURITY:**  
REDCap is HIPAA compliant. The platform is housed in WMed's data center behind the institutional firewall.
- VALIDATION:**  
You have control over what data are entered. No more free text showing up in your data fields!
- SIMPLICITY:**  
REDCap includes a nice user interface, making entering data as simple as ordering your pizza online!
- DATA ENTRY:**  
The online forms can be accessed from anywhere there is internet via a phone, tablet, or computer.
- DATA EXPORT:**  
The statisticians will love you! REDCap data can be exported in a format that is compatible with their preferred statistical software!

ask the experts >>>



**Q:** How do we contact you for project assistance?

**A:** That's easy, just reach out to us at [epibio@med.wmich.edu](mailto:epibio@med.wmich.edu)



