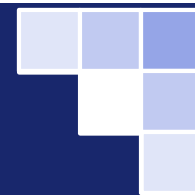


BUILDING SAFETY CULTURE THROUGH TARGETED TRAINING

**MONIQUE WILHELM
UNIVERSITY OF MICHIGAN-FLINT
DEPARTMENT OF CHEMISTRY & BIOCHEMISTRY**

253rd American Chemical Society National Meeting & Exposition, San Francisco, CA April 2, 2017

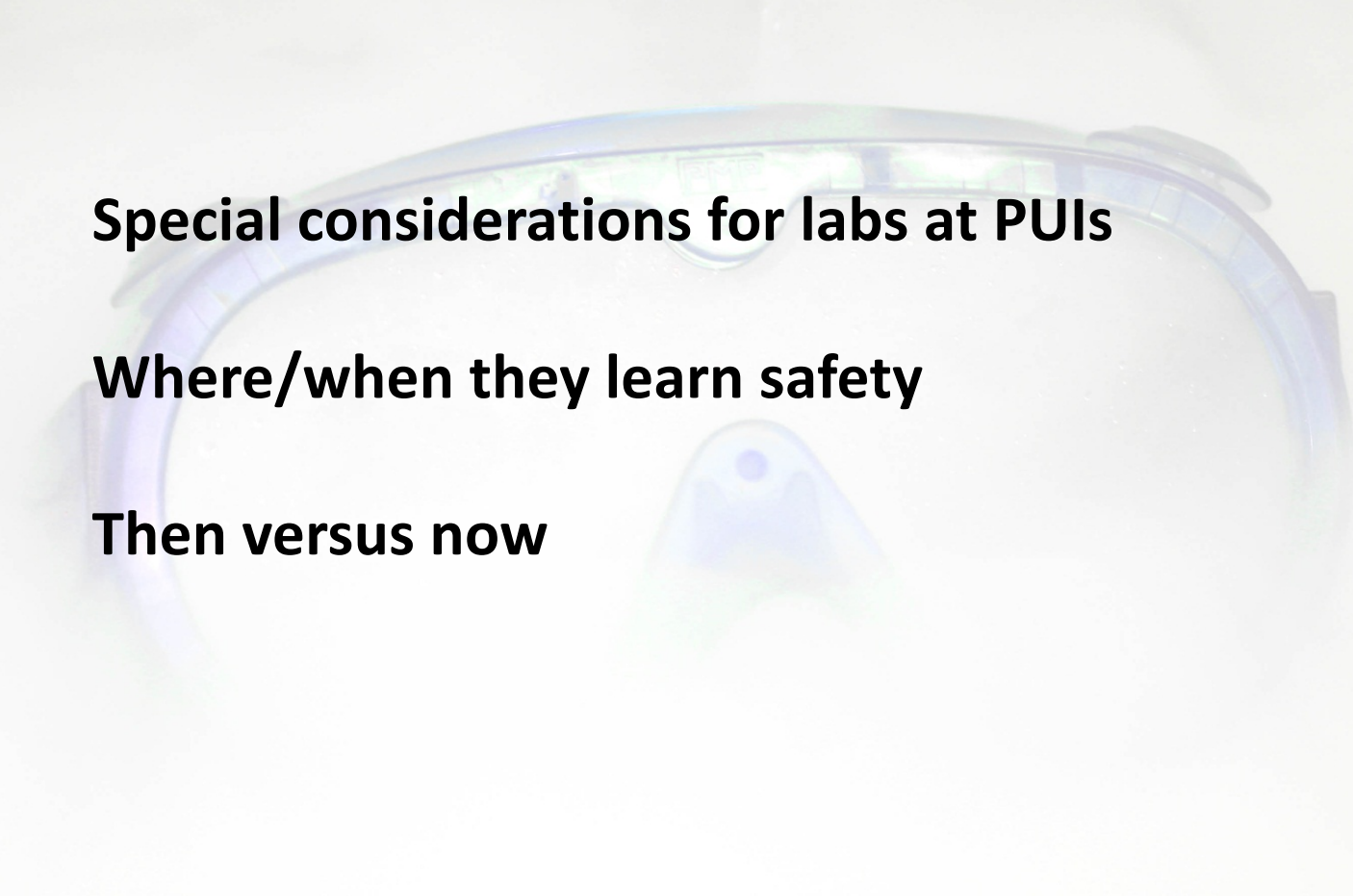


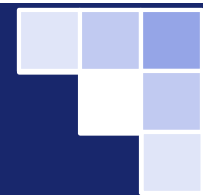
OVERVIEW

Special considerations for labs at PUIs

Where/when they learn safety

Then versus now

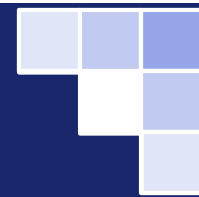




THE CHALLENGES

- Students are novices
- Not practiced at home
- The “Institution”

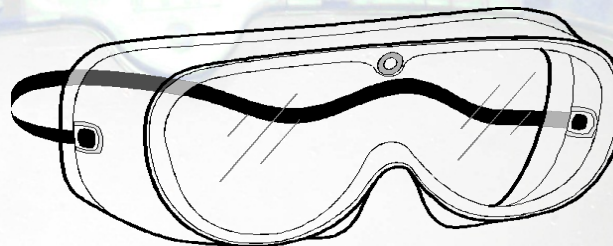




SAFETY OVER THE YEARS – a balancing act

- **What is safety?**

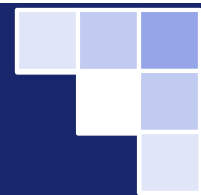
- Wearing goggles
- Darwinism is good!



- **We need to be responsible**

- Only use water, colored dyes, and very dilute corrosives in gen chem
- Orgo is orgo! Everyone put on gloves.
- Wait, you didn't teach that in Gen Chem?????!!!

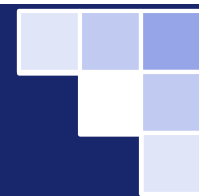


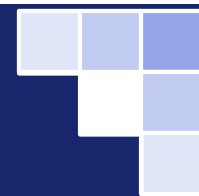


INSTITUTIONAL

- **Communication**
- **Department**
- **Support**





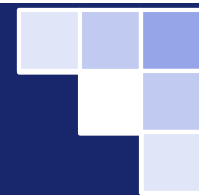


WHO IS THE AUDIENCE?

- **Staff**
- **Faculty**
- **Students**
 - Lab Assistants
 - Chem Club
 - Research

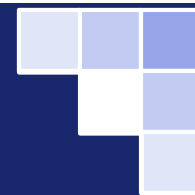


THEN VERSUS NOW



THEN, 14 years ago

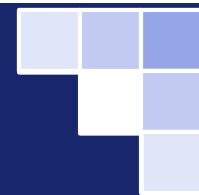
- **Faculty (the Bull's Eye of my target)**
 - I have a PhD in Chemistry!!!
 - Academic Freedom
- **Students**
 - Lab Assistants



NOW

- **Faculty (the Bull's Eye of my target)**
 - ALL required to do:
 - Laboratory & Chemical Safety (w/ GHS)
 - HazCom
 - RCRA
 - Basic First Aid
 - CHP

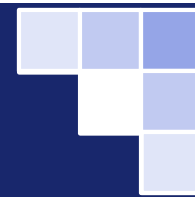




NOW

- **Students**
 - Lab Assistants
 - Added Research Assistants
 - Added Chem Club





Hello Student X,

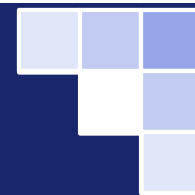
I am contacting you as Dr. X has informed me that you will be working in his lab next semester. Before you can begin any lab work, you will need to complete our basic departmental training. This will include mostly online training. **However, I will need for you to set up an appointment with myself to schedule the proficiency training once you have completed the online training** and before you begin any work without direct supervision. Once basic training has been complete, Dr. X will cover additional lab-specific training.

I have registered you for some of the online courses that you need to get you started. Please go to <https://umflint.inclassnow.com> and log in with your University credentials. The following courses should be set up for you to complete before the end of this month:

- Laboratory Safety Course
- Chemical Safety Course
- Compressed Gas Safety Course
- Flammable and Combustible Liquids Course

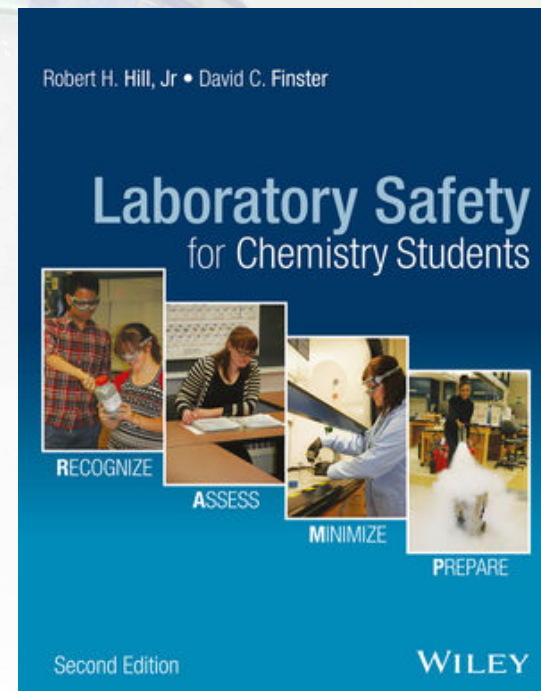
In addition, you will also need to view a few quick DOW safety videos and complete the attached quiz. Please let me know if you have any questions.

Regards,
Monique Wilhelm

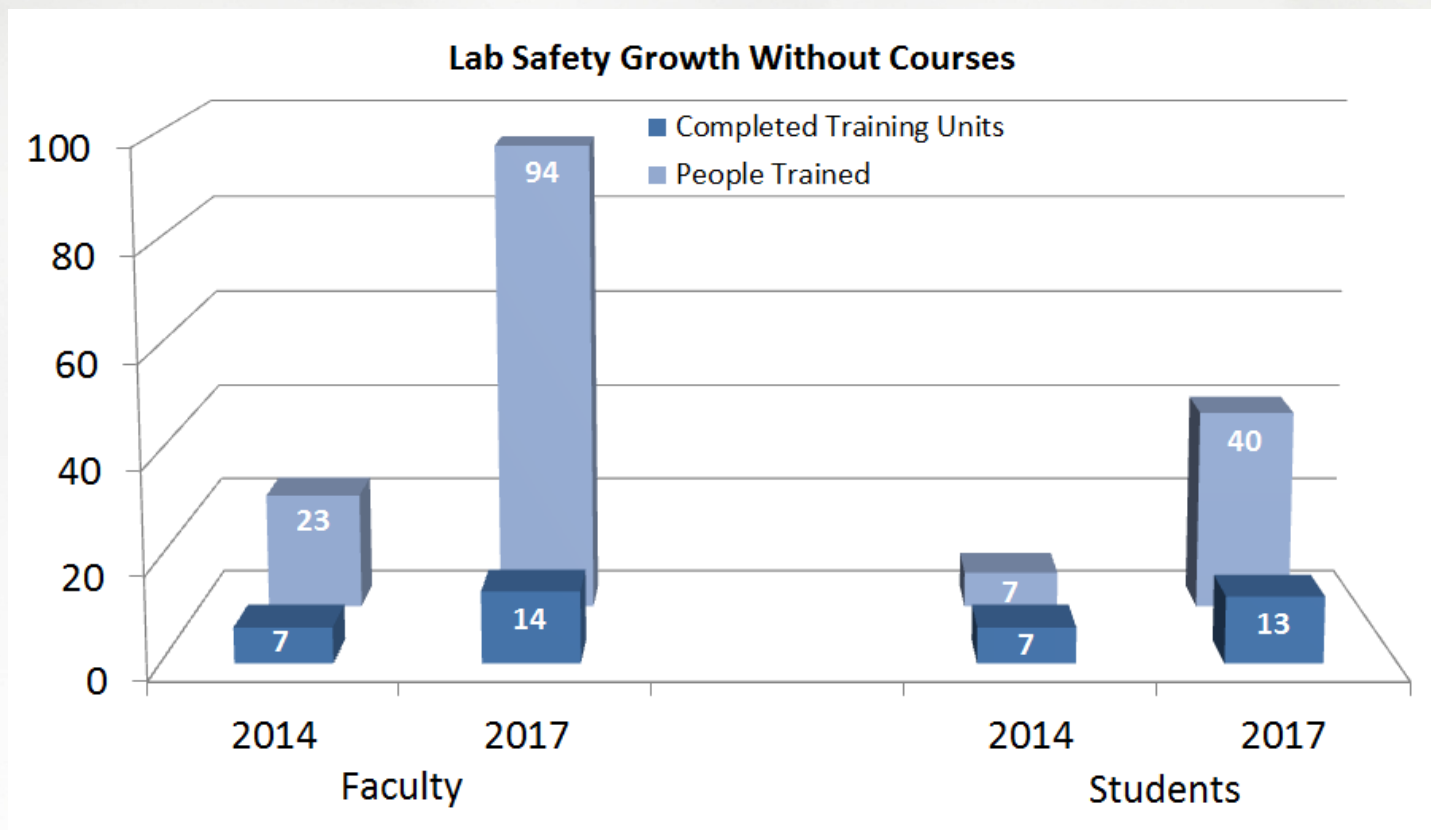
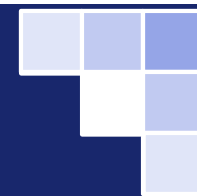


NOW: SAFETY ACROSS THE CURRICULUM

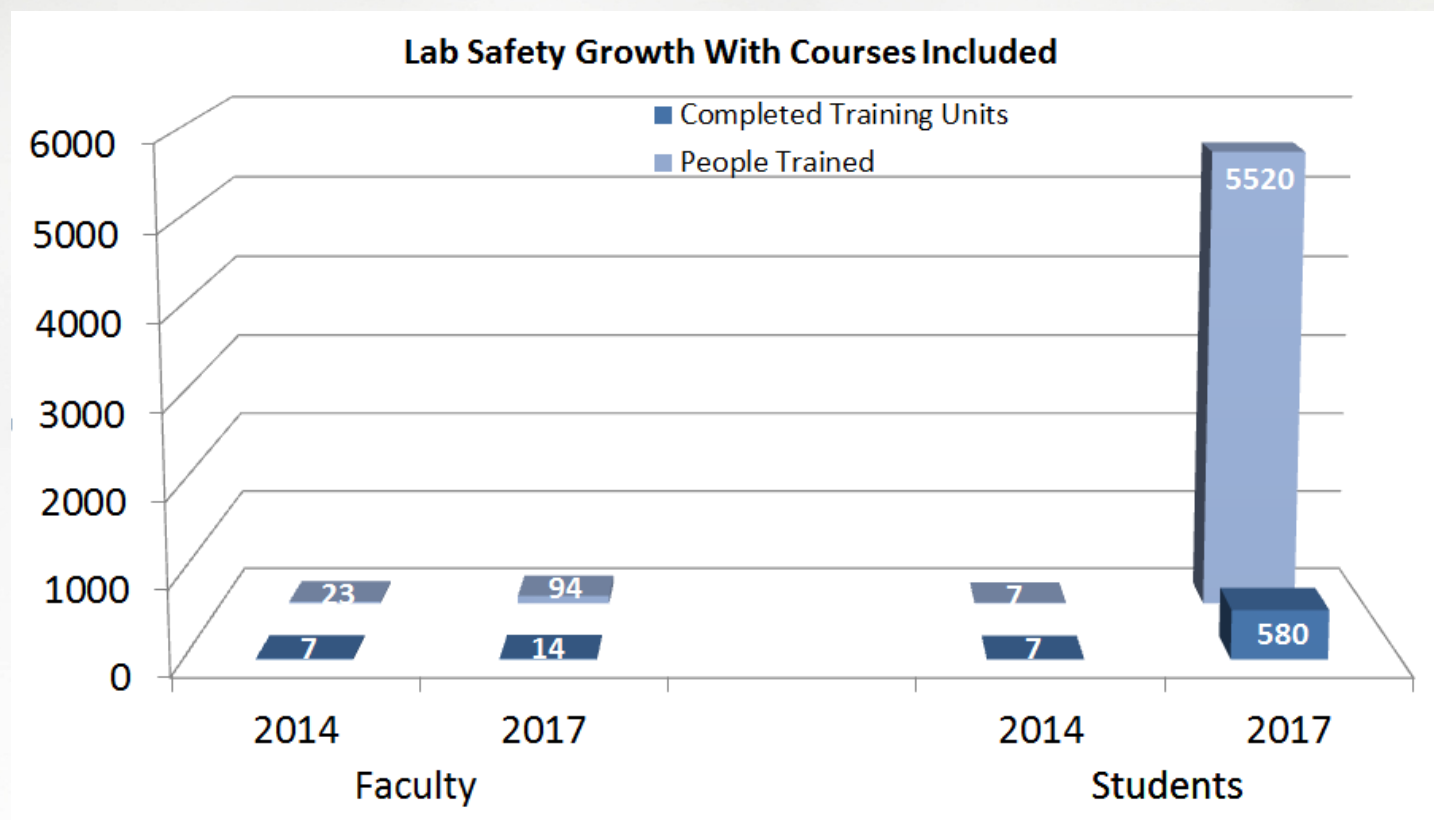
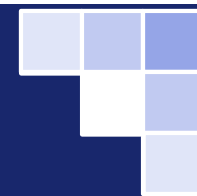
- **Formal curriculum**
 - Upper vs lower division
- **Extras**
 - Lab Assistants
 - Chem Club
 - Research

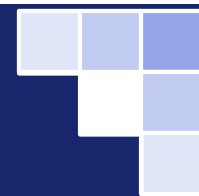


TELLING IT LIKE A SCIENTIST



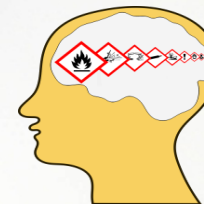
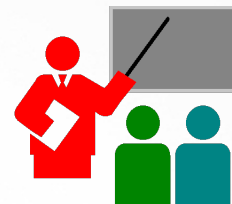
TELLING IT LIKE A SCIENTIST





Targeted training topics + online components =

- **Decreased time training**
- **Increased number trained**
- **Faculty adding safety to courses**
- **Increased safety awareness**



QUESTIONS

