

College Mental Health Research Symposium

Monday, March 12 & Tuesday, March 13, 2018
University of Michigan School of Public Health

Welcome

- 8th annual symposium
- Unique opportunity for researchers, clinicians, administrators, advocates, and others to meet, discuss, and collaborate
- Diverse audience brought together by a shared goal to improve college student mental health
- Special acknowledgments:
 - UM Depression Center
 - UM School of Public Health

Symposium Participants

- >20 colleges/universities
- ~10 organizations
- Faculty/researchers
- Campus practitioners
- Clinicians
- Advocates
- Health IT/entrepreneurs
- Graduate and undergraduate students
- Others?

Overarching Questions for Research Symposium

- *How might we create an ideal campus mental health system, given the increasing demand for mental health services and the emerging technologies and programs available? What additional data and research do we need most urgently to answer this question more confidently? What new research and data are most needed?*
- *What are new opportunities for collaboration?*
- *Other suggested questions? Other things you're hoping to get out of the symposium?*

Motivation

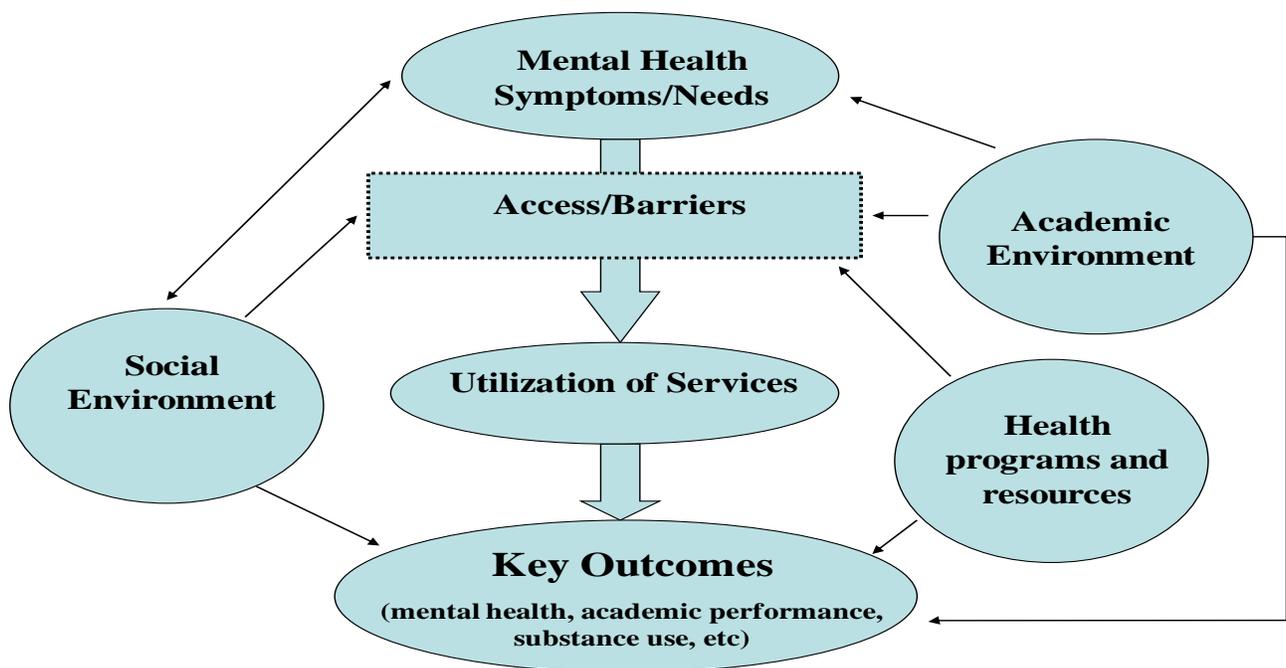
*How can we invest most efficiently in the mental health of college students?
What are the returns from potential interventions?*

Design and evaluate programs
and interventions

Collect descriptive data



Opportunity at Colleges



Symposium Format

- Day 1 is about specific topics
 - Innovation Panels and Discussion
 - Leveraging Data to Promote Student Health and Success
 - Mobile Apps for Health and Wellness
 - Wellness Paradigms on College and University Campuses
 - Panel Q & A
 - Sense of Belonging, Climate, and Mental Health
- Day 2 is about processes, use of knowledge, dissemination
 - Research-to-Practice Panels and Discussion
 - Strategies for Monitoring and Evaluating System Change
 - Collaborations: Cross-Campus and National
 - Data and Research Resources on College Student Mental Health

Guidelines for Discussion

- Interactive and inclusive
- When sharing information, be concise and refer to resources for learning more
- Notes will be taken and shared later

Today

- The State of College Student Mental Health
- Innovation Panels and Discussion
 - Leveraging Data to Promote Student Health and Success
 - Mobile Apps for Health and Wellness
 - Wellness Paradigms on College and University Campuses
- Break
- Sense of Belonging, Climate, and Mental Health
- Happy Hour

The State of College Student Mental Health

Who are today's college students?

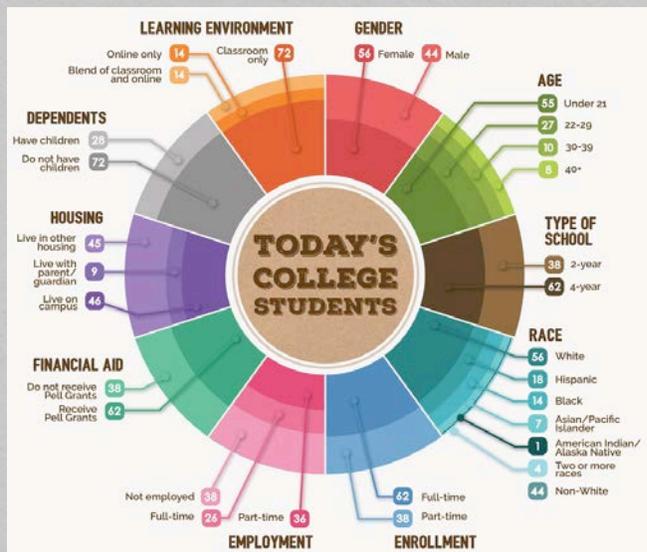
Key data points

Who are Today's College Students?

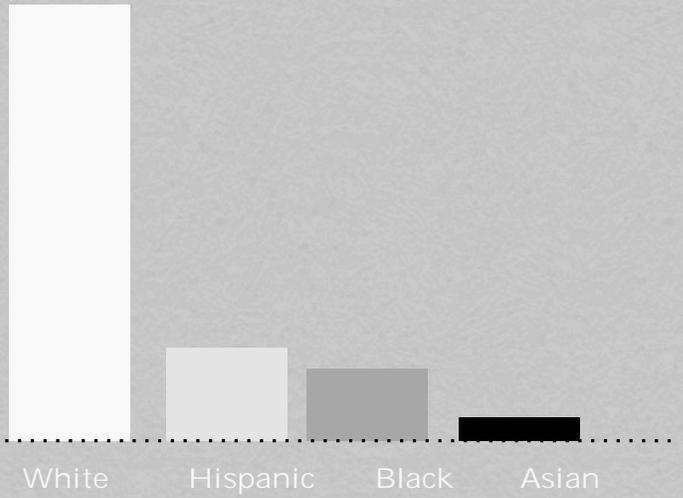
- Jasmine Morigney & Shelby Steverson

College Mental Health Research Symposium

The State of College Students



Race

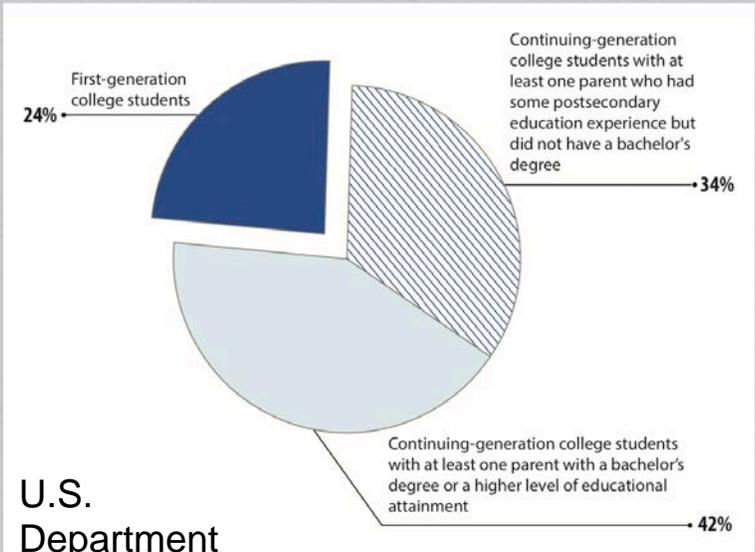


<https://postsecondary.gatesfoundation.org/what-were-learning/todays-college-students/>
https://nces.ed.gov/programs/digest/d16/tables/dt16_302.60.asp

First Generation College Students



<https://nces.ed.gov/pubs2018/2018Q09.pdf>



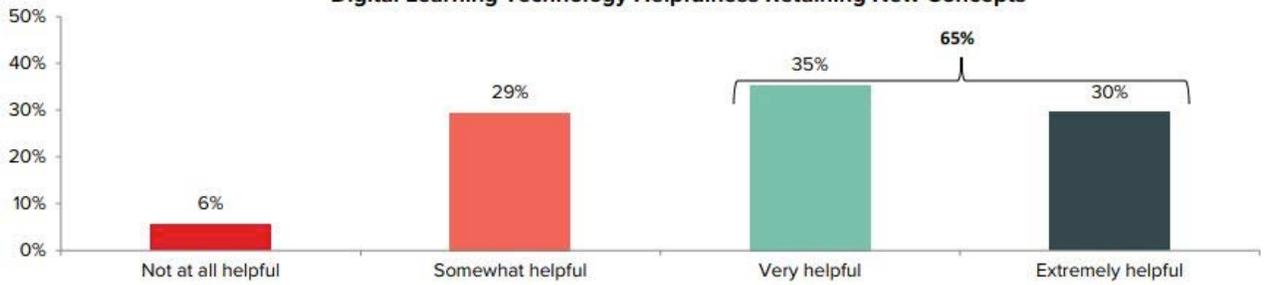
U.S.
Department
of Education



Digital Nativity

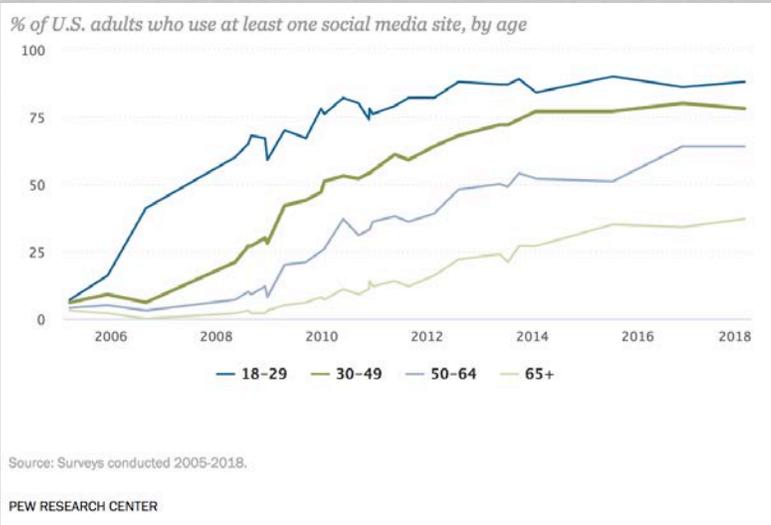


Digital Learning Technology Helpfulness Retaining New Concepts

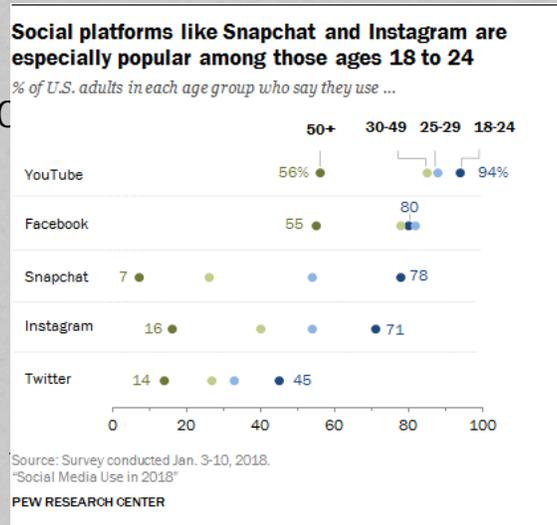


<https://www.heacademy.ac.uk/system/files/next-generation-and-digital-natives.pdf>

Social Media Use



e 20



<http://www.pewinternet.org/fact-sheet/social-media/>
<http://www.pewinternet.org/2018/03/01/social-media-use-in-2018/>

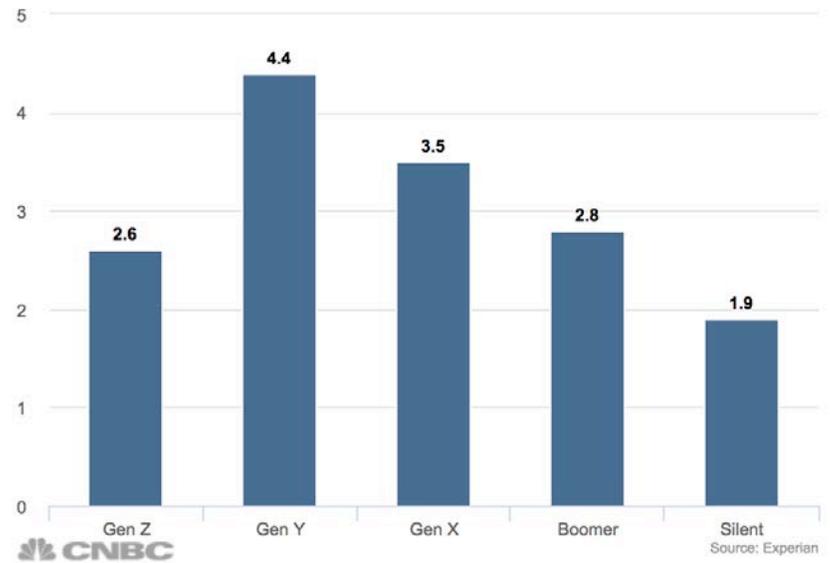


Debt

<https://www.cnbc.com/2017/08/29/student-loan-balances-jump-nearly-150-percent-in-a-decade.html>

<https://studentloanhero.com/student-loan-debt-statistics/>

Average student loans per consumer

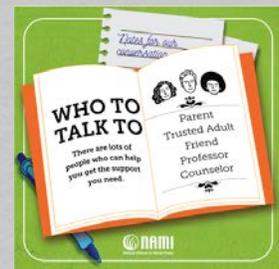
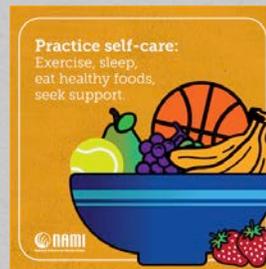
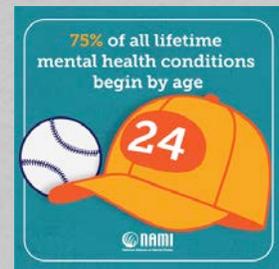


Why is this important?

College students are independent and responsible for their health, and many are financially independent

75% of mental health disorders are onset by age 24

1 in 5 young adults experience a mental health condition



<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4527955/#lpo=65.9091>
<http://time.com/4473575/college-mental-health-guidebook/>
<https://nami.org/collegeguide>

Recent Data

- ACHA-NCHA Spring 2017 Reference Group Executive Summary
 - 63,497 students on 92 campuses
 - http://www.acha-ncha.org/docs/NCHA-II_SPRING_2017_REFERENCE_GROUP_EXECUTIVE_SUMMARY.pdf
- CCMH 2017 Annual Report
 - 161,014 students on 147 campuses
 - https://sites.psu.edu/ccmh/files/2018/02/2017_CCMH_Report-1r4m88x.pdf
- HMS 2016-2017 National Report
 - 53,760 students on 54 campuses
 - http://healthymindsnetwork.org/system/resources/W1siZiIsIjIwMTcvMDkvMTIvMTNfMjZfMDRfMTgzX0hNU19uYXRpb25hbC5wZGYiXV0/HMS_national.pdf

Key Findings from the Field: Prevalence

- Depression symptoms
 - “Felt so depressed that it was difficult to function”, past yr = 39% (ACHA-NCHA)
 - Positive screen (PHQ-9 ≥ 10) = 31% (HMS)
- Anxiety symptoms
 - “Felt overwhelming anxiety”, past yr = 61% (ACHA-NCHA)
 - Positive screen (GAD-7 ≥ 10) = 26% (HMS)
- Suicidality, past yr
 - 10% (ACHA-NCHA)
 - 11% (HMS)

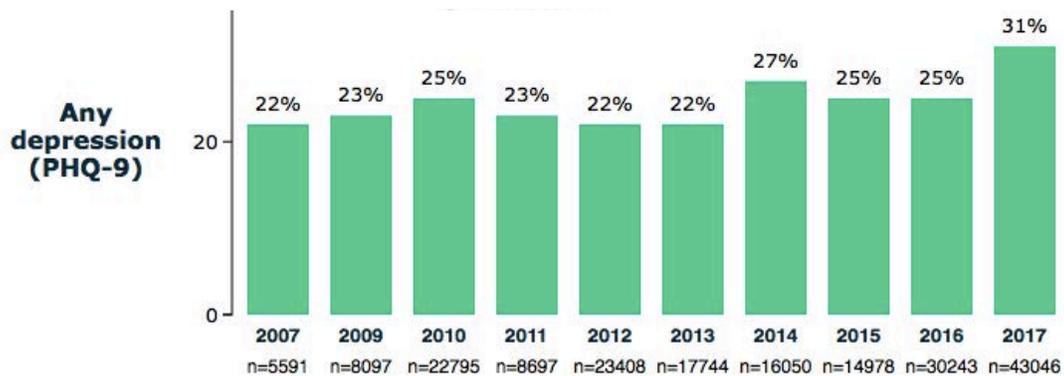
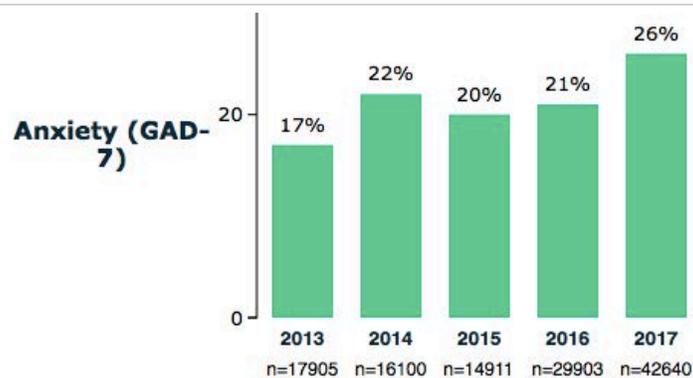
Key Findings from the Field: Help-Seeking

- ACHA
 - Diagnosed or treated for psychiatric condition, past yr = 9%
- HMS
 - Lifetime diagnoses of mental disorders = 36%
 - Counseling or therapy, past yr = 24%
 - Psychiatric medication, past yr = 22%
 - Any mental health therapy/counseling and/or psychiatric medication among students with positive depression or anxiety screens, past yr = 51%
 - Informal help-seeking, past yr = 61%
- CCMH
 - Counseling prior to college = 21%
 - Counseling after starting college = 18%
 - Counseling prior to and since starting college = 14%
 - Taken prescribed medication prior to college = 9%
 - Taken prescribed medication after starting college = 14%
 - Taken prescribed medication prior to and since starting college = 12%

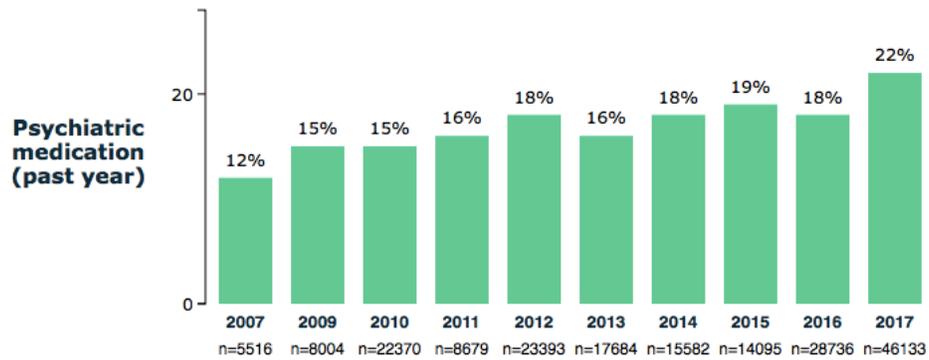
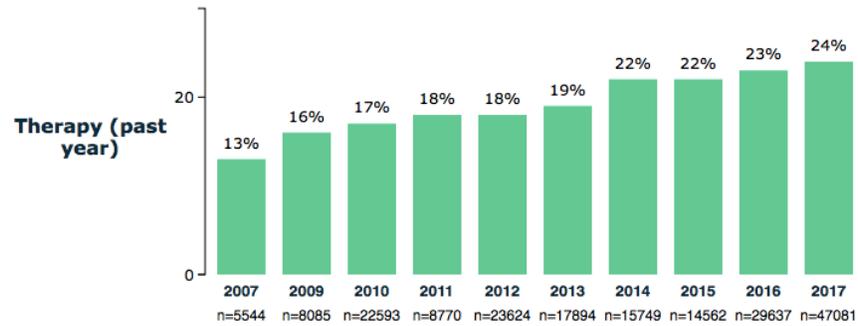
Key Findings from the Field: Other Data Points

- Academic impairment
 - Anxiety, past yr = 24% (ACHA-NCHA)
 - Depression, past yr = 16% (ACHA-NCHA)
 - Emotional or mental health difficulties, past month = 74% (HMS)
- Flourishing (positive mental health)
 - Score of ≥ 48 = 42% (HMS)

Trends Over Time (HMS)

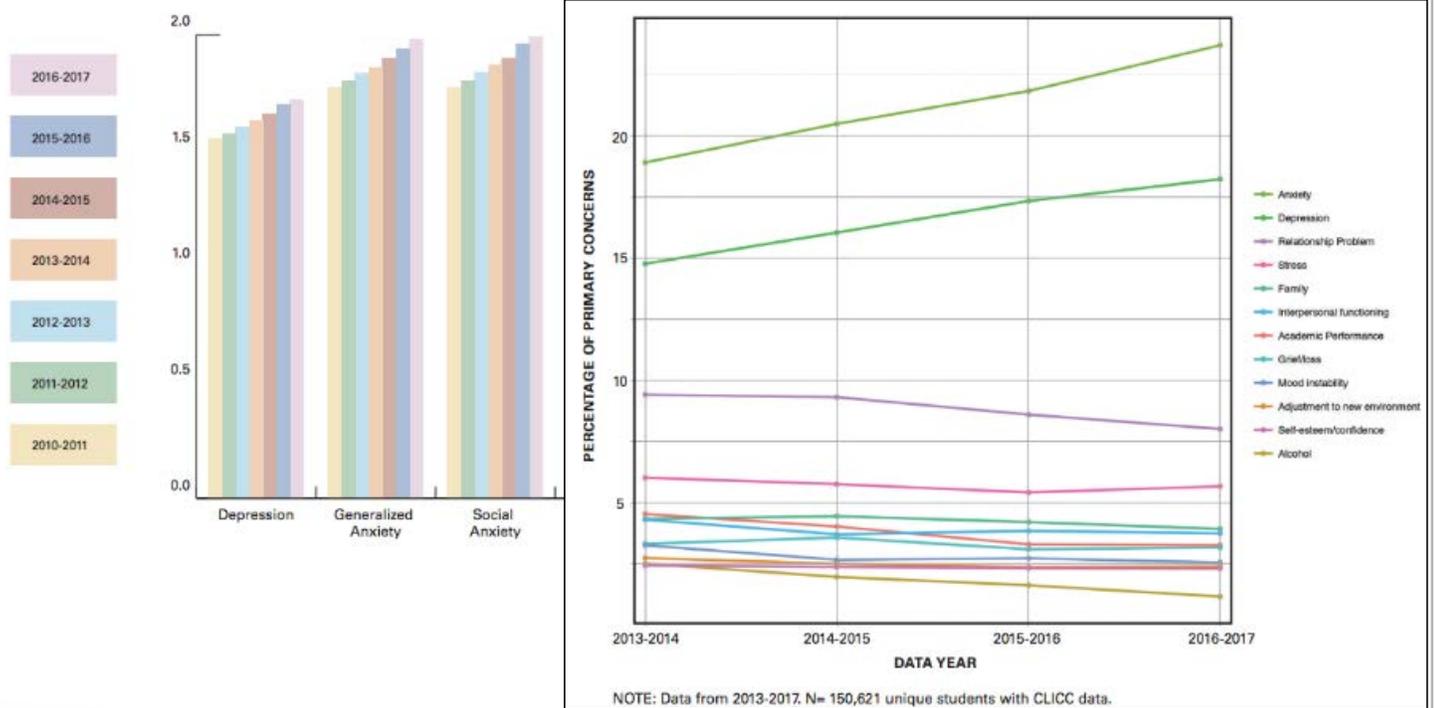


Trends Over Time (HMS)



Trends Over Time (CCMH)

CCAPS-34 Trends: Average Subscale Score (2010 to 2017)



Innovation Panels and Discussion

Leveraging Data to Promote Student Health and Success

Adam Partes & Megan Phillips

Mobile Apps for Health and Wellness

Emily Lattie & Martha Neary

Wellness Paradigms on College and University Campuses

Laura Horne & Dorothy Kent

Session Objectives and Overview

- Return to work from 2017 CMHRS
- Discuss questions and recommendations from three white papers
 - Leveraging Data to Promote Student Health and Success
 - Mobile Apps for Health and Wellness
 - Wellness Paradigms on College and University Campuses

Break



Sense of Belonging, Campus Climate, Marginalized Students, and Mental Health

Panelists: Sara Abelson, Tabbye Chavous,
Daphne Watkins, & Sasha Zhou

Moderator: Peter Ceglarek

Session Objectives

- Discuss what we mean by “sense of belonging” and “campus climate”
- Consider the ways in which campus climate has been measured in the literature and in research/surveys
- Discuss trends regarding campus climate in recent years
- Understand the connection between sense of belonging, campus climate, and student mental health
- Identify gaps in the research/data needed to understand and address these issues
- Discuss strategies/programs to improve sense of belonging, campus climate, and student mental health

Happy Hour



for Research on Adolescent and Young Adult Mental Health

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Tuesday

- Breakfast and Day 2 Overview
- Day 2 is about processes, use of knowledge, dissemination
- Research-to-Practice Panels and Discussion
 - Strategies for Monitoring and Evaluating System Change
 - Collaborations: Cross-Campus and National
 - Data and Research Resources on College Student Mental Health
- Wrap-Up

Strategies for Monitoring and Evaluating System Change

- Session objectives
 - Differences between rigorous evaluation and quality improvement
 - The need for both rigorous evaluation and quality improvement
 - Advantages/limitations of rigorous evaluation and quality improvement
 - Articulate examples of tools, data collection, ways of analyzing results that can be used for rigorous evaluation and quality improvement

Evaluating System Change: Ohio Healthy Campus Initiative



CAMPUS



for Research on Adolescent and Young Adult Mental Health

JED Campus & The Healthy Minds Study

- Value of assessing systems change (JC) and student attitudes/behaviors (HMS)
 - Identify trends that point to correlations between enhancing systems, policies/programs and student attitude/behavior change (service use, awareness, stigma, etc.)
 - Assess progress over time and strengthen case for maintaining/expanding resources/programs
- When implemented together, these initiatives yield a comprehensive approach to using research to enhance campus mental health programs and policies

Ohio Cohort



Participating campuses: Cleveland State University, Defiance College, Denison University, Hocking College, Kent State University, Lakeland Community College, NEOMED, Shawnee State University, Xavier University, Walsh University

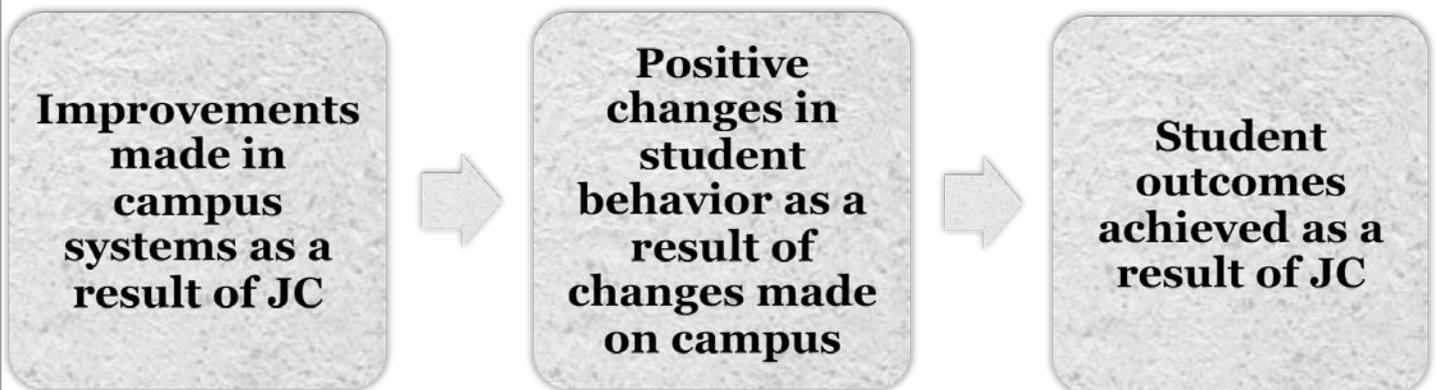
Evaluation of OH Healthy Campus Initiative

- Sources of data
 - Baseline HMS
 - Administrator survey data from JED Campus
 - 3-year follow-up HMS
 - Follow-up administrator survey/interview data collected as part of OH HCI

HMS & JED Campus Theory of Change

- Strategic Planning
- Life Skills
- Social Connectedness
- Identifying Students At Risk
- Help-seeking Behavior
- Substance Abuse and Mental Health Knowledge/Attitudes
- Crisis Management
- Lethal Means
- Student Mental Health Outcomes

JED Theory of Change & HMS



Increase in Perceived Culture of Care on Campus and Help-Giving Behavior

Student Attitudes (ToC)	HMS Items
Students experience culture of caring and compassion on campus	At my school, I feel that students' mental and emotional well-being is a priority.
	At my school, I feel that the campus climate encourages free and open discussion about mental and emotional health.
	At my school, students are working to promote mental health on campus.
	At my school, the administration is listening to the concerns of students when it comes to health and wellness.
	At my school, I feel that the campus environment has a negative impact on students' mental and emotional health.
	There is a good support system on campus for students going through difficult times.
Students more likely to give help when they see someone in distress	In the past year, I have intervened (by trying to help) in the following situations on my campus
	When I intervened, I was able to make the situation better.
	In the past year, I witnessed the following risky or difficult situations on my campus but did not intervene:
	I decided not to intervene because...

Increase in Emotional Resilience and Improved Skills to Manage Emotions

Student Attitudes (ToC)	HMS Items
Students flourish and feel more positively about their own lives	Positive Mental Health (Scale)
Students are better able to manage emotions	Psychological inflexibility / experiential avoidance (Scale)
Students develop an increased level of emotional resilience	Emotional Resilience (Scale)

Increase in Sense of Belonging to the Campus among Students

Student Attitudes (ToC)	HMS Items
Students experience an enhanced sense of belonging and connectedness on campus	I see myself as a part of the campus community.
	I fit in well at my school.
	I feel isolated from campus life.
	Other people understand more than I do about what is going on at my school. At my school, we are a campus where we look out for each other.

Increase in Identification of and Outreach to Students who are Struggling

Student Attitudes (ToC)	HMS Items
Students are more able to recognize the signs of struggle in other people	I feel confident in helping someone with a mental health problem
	Have you ever participate in a mental health GKT program?
	I have a good idea of how to recognize that someone is in emotional or mental distress.
Students feel more responsible to help fellow students	I am responsible to help if a friend is struggling.
Students are more likely to intervene when someone is in crisis/danger	I am responsible to help if a classmate is struggling.
	If I saw someone was drinking too much, I would intervene (by trying to help)
	If I saw someone was experiencing significant emotional distress or thoughts of suicide, I would intervene (by trying to help)

Increase in MH Service Utilization and Help-seeking and Decrease in Stigma

Student Attitudes (ToC)	HMS Items
Students are more likely to seek counseling services	Have you ever received MH counseling or therapy?
	How many total visits or sessions have you had in past 12 months?
	Are you currently receiving counseling or therapy?
	From which of the following places did you receive counseling or therapy?
	In past 12 months have you received counseling or support for MH from any of the following sources?

Increase in MH Service Utilization and Help-seeking and Decrease in Stigma (cont.)

Student Attitudes (ToC)	HMS Items
Students are more likely to seek help from other campus professionals	During this school year have you talked with any academic personnel about MH problems affecting your academic performance?
	In past 12 months have you received counseling or support for MH from any of the following sources?
Students are more likely to seek help from non-campus professionals	In past 12 months have you received counseling or support for MH from any of the following sources?
	If you were experiencing serious emotional distress, whom would you talk to about this?

Increase in MH Service Utilization and Help-seeking and Decrease in Stigma (cont.)

Student Attitudes (ToC)	HMS Items
Students report fewer barriers to accessing care	<p>In past 12 months, which of the following factors have caused you to receive fewer services for your mental or emotional health than you would have otherwise received?</p> <p>In past 12 months which of the following explain why you have not received medication or therapy for your mental or emotional health?</p>
Students experience less internal stigma	<p>When I feel depressed or sad, I tend to keep those feelings to myself.</p> <p>Sometimes I feel ashamed of having a mental illness.</p> <p>I wish I could disclose to others my mental illness.</p> <p>Sometimes I keep my mental illness a secret.</p>
Students experience less external stigma	<p>I would willingly accept someone who has received mental health treatment as a close friend.</p> <p>I feel that receiving mental health treatment is a sign of personal failure</p> <p>I would think less of a person who has received mental health treatment.</p>

Decrease in Substance Abuse, Increased Knowledge/Attitudes about Mental Health Issues and Services

Student Attitudes (ToC)	HMS Items
Students experience a decrease in substance abuse	<p>Over past 2 weeks, about how many times did you have 4/5 or more alcoholic drinks in a row?</p> <p>Over past 30 days, how many cigarettes did you smoke per day?</p> <p>Over past 30 days, have you used any of the following drugs?</p>
Students expand knowledge of MH issues	<p>Relative to the average person, how knowledgeable are you about mental illnesses and their treatments?</p> <p>As far as you know, which of the following are common symptoms of depression?</p> <p>As far as you know, which if the following are considered to be effective self-help strategies for reducing anxiety?</p> <p>I have a good idea of how to recognize that someone is in emotional or mental distress</p> <p>As far as you know, which of the following are generally considered highly effective treatments for depression?</p>
Students expand awareness of MH services on campus	<p>If I needed to seek professional help for you mental or emotional health, I would know where to go on my campus</p>
Students expand awareness of MH services on campus	<p>Are you aware of mental health outreach efforts on your campus?</p>

Student Outcomes

Student Attitudes (ToC)	HMS Items
Students' mental health improves	Positive mental health
	Depression
	Diagnosed mental illnesses
	Anxiety
Students are less likely to abuse substances	Emotional resilience
	Substance use
Students are less likely to die by suicide	Witnessing
	Non-suicidal self-injury
	Suicidality

Strategies for Monitoring and Evaluating System Change

- Quality improvement
 - See slides at the end of this PDF

Collaborations: Cross-Campus and National

- Allison Smith & Lee Swain
- Session objectives
 - Think about the “who” (who on our campuses, who at a national level) are the influencers of student mental health?
 - Describe strategies for building the will and mobilizing these influencers to recognize their role
 - Identify ways of facilitating action and learning from one another

Data and Research Resources on College Student Mental Health

- Session objectives
 - Think about the currently available data and research resources that are most useful
 - Identify the biggest gaps, needs, and opportunities
 - Generate ideas about other resources
- FAQs are an example of trying to fill a need for an easy summary of a handful of common question
 - Ways to enhance what we're doing with FAQs

Symposium Wrap-Up

The Healthy Minds Network



for Research on Adolescent and Young Adult Mental Health

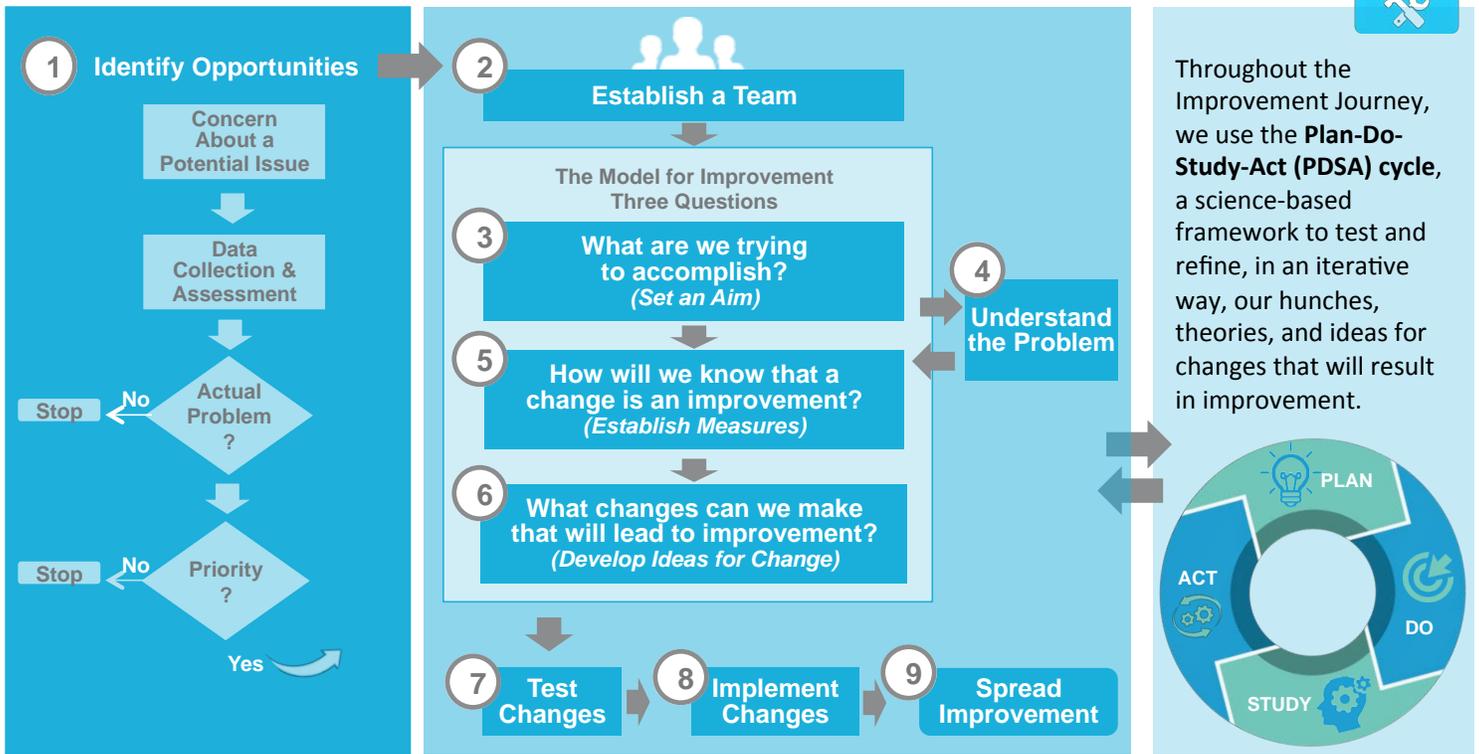
Symposium Wrap-Up

- Next steps
- Will follow-up with notes/materials from Symposium
- Symposium evaluation
- Next year's Symposium: March 12-13, 2019
- Depression on College Campuses Conference begins today at 1pm at the Rackham Building

College Mental Health Research Symposium

Thank you for joining us!

How will we know that a change is an improvement?



Throughout the Improvement Journey, we use the **Plan-Do-Study-Act (PDSA) cycle**, a science-based framework to test and refine, in an iterative way, our hunches, theories, and ideas for changes that will result in improvement.

Click Next to continue.



Measurement for Quality Improvement

Why are we measuring?

Research?



Judgment?

Improvement?

The answer to this question will guide your entire quality measurement journey.

Different Purposes of Measurement

Take a look at the differences between measurement for improvement compared with measurement for other common purposes in the table below.

	Judgement or Accountability	Research	Improvement and Learning
Purpose	Evaluation of performance to assure or make judgement about level of performance (e.g., pay-for-performance, regulatory)	Discovery of new knowledge or proof of effectiveness	Sustained improvement
Testing strategy	No test; evaluate current performance level	One large test that is blinded or controlled	Many sequential, observable tests
Sample size	Obtain 100% of available, relevant data	Gather as much data with as many potentially influential variables as possible	Gather “just enough” data to learn and complete another cycle
Hypothesis	No hypothesis	Fixed hypothesis	Hypothesis is flexible and changes as learning takes place
Bias	Measure and adjust for bias (e.g., risk adjustments)	Design to eliminate or control bias	Accept consistent bias
Determining if a change is an improvement	No change focus; typically, focus is on comparison to others (e.g. to other providers or similar organizations)	Statistical tests (e.g., t-test, chi-square test) and p-values	Run charts or statistical process control (SPC) charts



A Family of Measures

Measurement for improvement allows us to answer questions such as:

- **What is the current state?**
 - **Which factors, such as processes and activities, have an impact on the outcomes?**
 - **Are the processes stable and reliable?**
 - **How do we know if a change is an improvement?**
-



What Types Of Measures Are There?

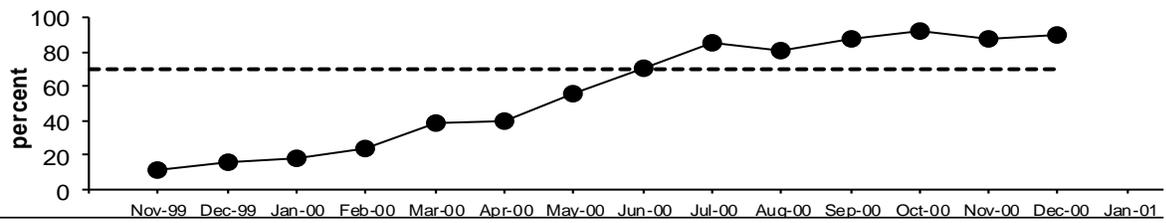
When we establish our **Family of Measures** for an improvement initiative, we always want to try to create a balanced set of measures that include:

- 1. Outcome measures**, which tell you how the system is performing. These measures quantify the ultimate result that you want to improve.
 - 2. Process measures**, which tell you if the parts or steps in the system are performing as planned to affect the outcome measure. Process measures typically show improvement before outcome measures do.
 - 3. Balancing measures**, which assess whether the changes designed to improve one part of the system are introducing problems, or unintended consequences, elsewhere. These measures are often not directly related to the aim.
-

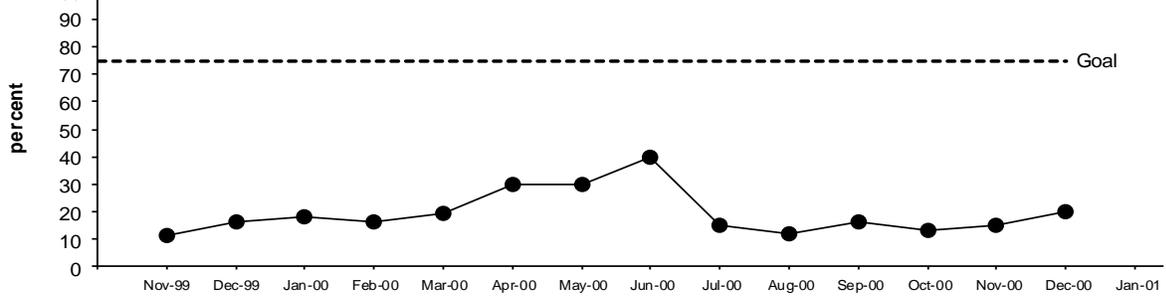


Family of Measures for Depression Population

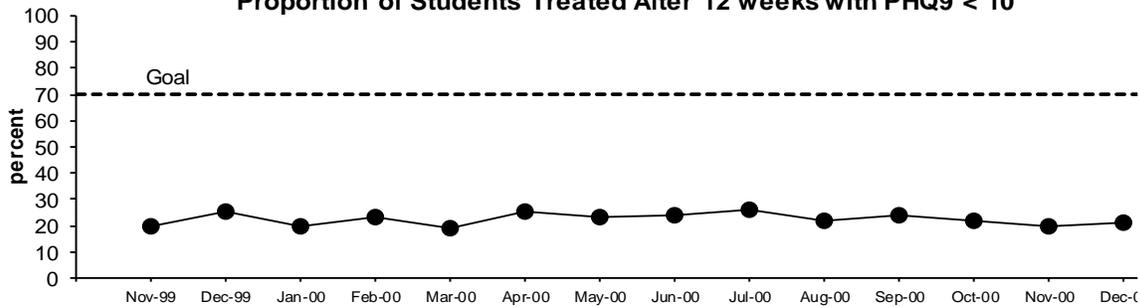
Percent of Patients with Structured Diagnostic Assessment in Reco



Percent of Patients with Follow-up Structured Assessment at 4-8 Weeks



Proportion of Students Treated After 12 weeks with PHQ9 < 10



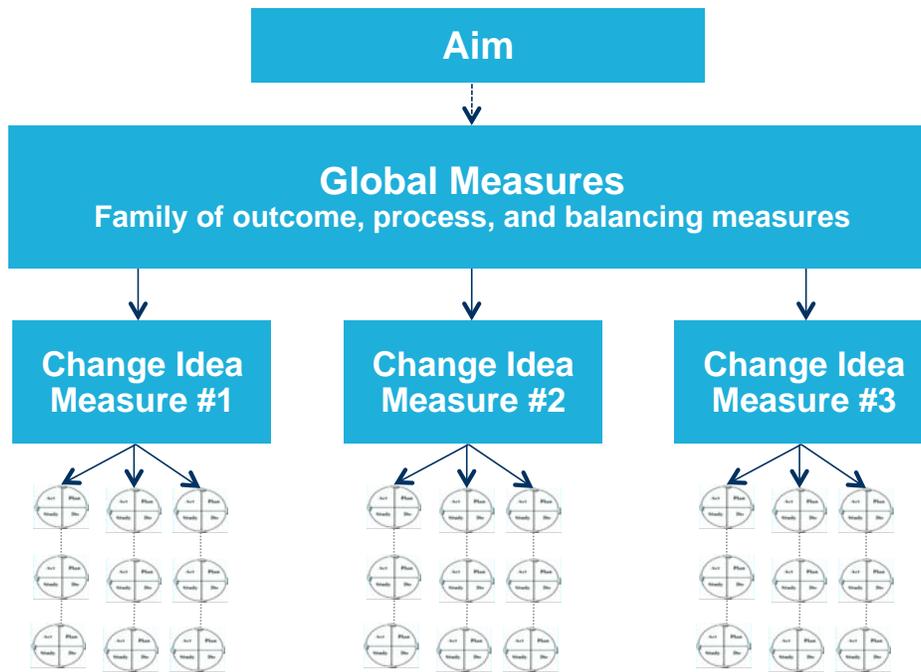


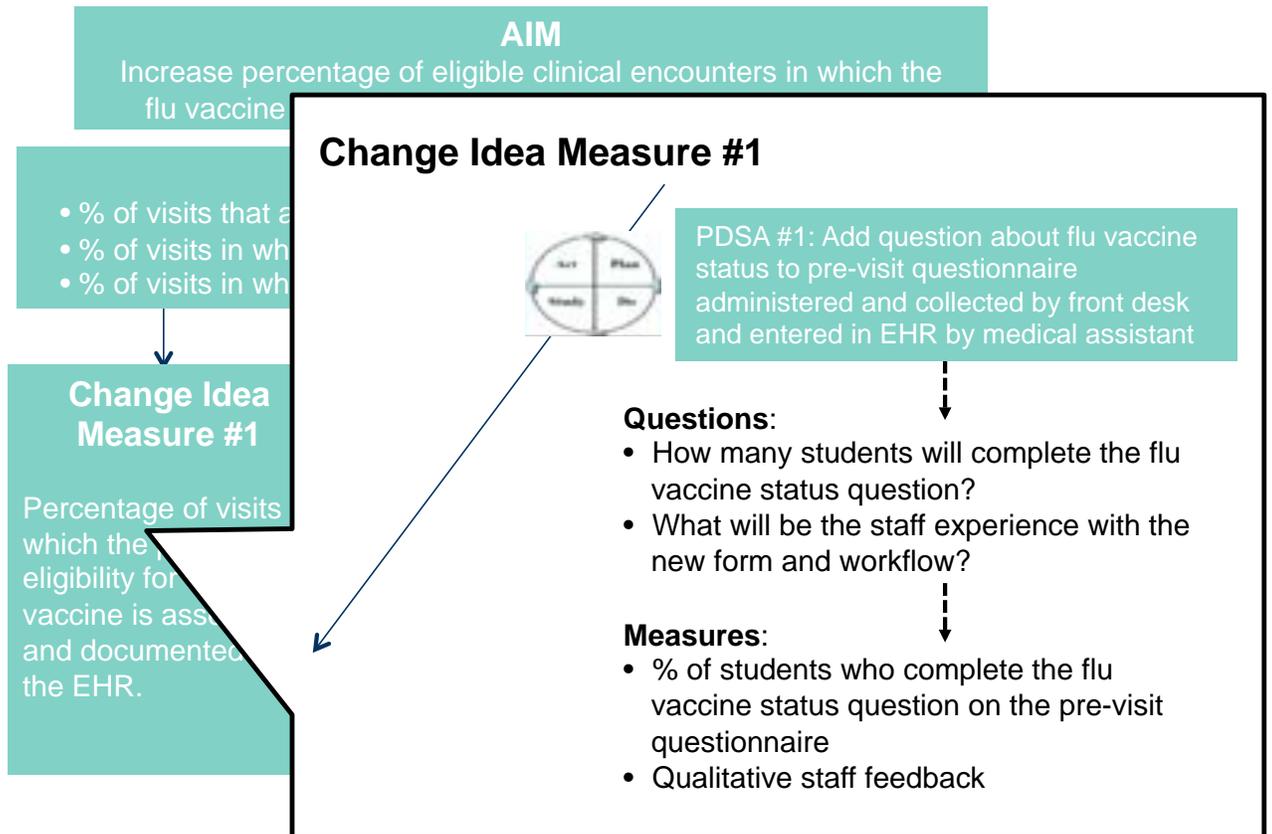
Example Measures

Here are a few examples:

Topic	Outcome	Process	Balancing
Wait time for walk-in visit	Time from check-in to start of provider assessment	Length of time to check-in	Staff satisfaction
	Patient Satisfaction		
Depression care	% of students on campus who report academic impact from depression	% of students screened for depression in medical services % of students engaged in treatment within 2 weeks of positive screen	Appointment availability in counseling services for other mental health issues
Binge drinking	% of students on campus who binge drink	% of entering students who complete online alcohol educational module	% students reporting that they received information from their school on other (non-alcohol) related topics
	% of students on campus who experience a negative consequence from alcohol	% of students screened for high risk drinking % of provider visits with positive high risk alcohol screenings that have a brief intervention documented in the health record	
		% of students on campus who are trained on bystander intervention	

Cascading Set of Measures - Levels





Click Next to continue.



Using Run Charts

For quality improvement, the use of **run charts** is often the method for analysis and developing understanding of results.

What is a run chart and how can it help us with quality improvement?

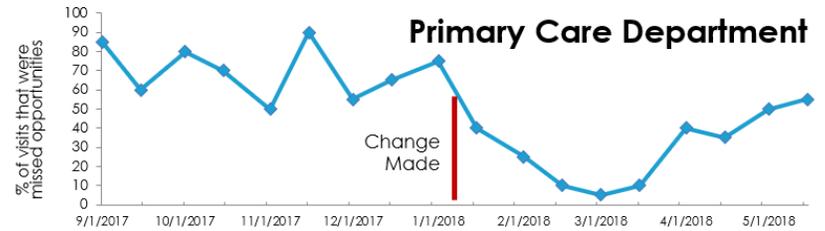
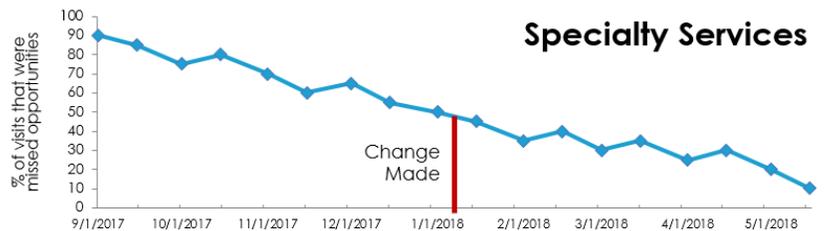
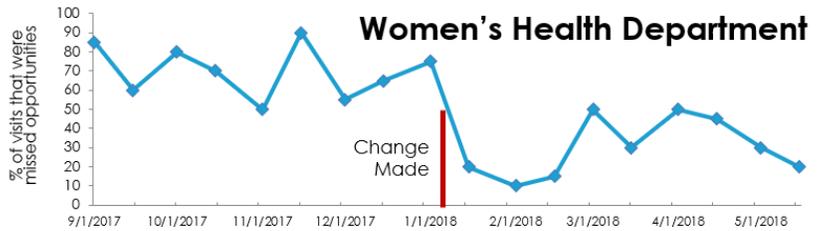
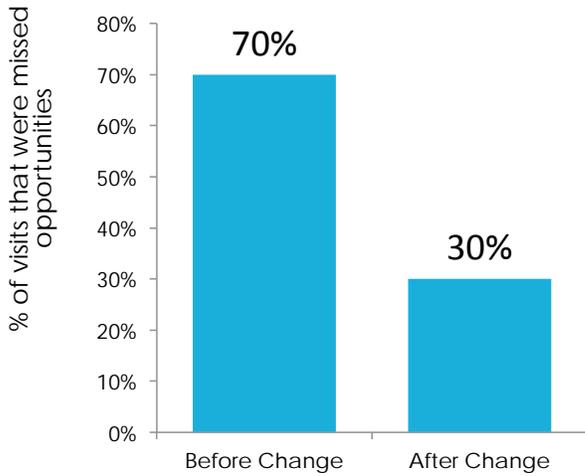
- A run chart is a visual tool that enables us to build knowledge and learn. Simply put, a run chart is a line graph of data plotted over time.
 - As we gather more data over time, we have the advantage of being able to see the behavior of the process that we are measuring over time.
 - Run charts help us to differentiate variation due to typical fluctuations (called “common cause variation”) from those caused by something different (called “special cause variation”) within the system, signaling a change that we may want to explore.
 - Run charts help us answer questions such as:
 - How much variation do we have?
 - Is process changing meaningfully over time?
 - Has our change resulted in an improvement?
 - Did we hold the improvement?
-



Using Data for Quality Improvement

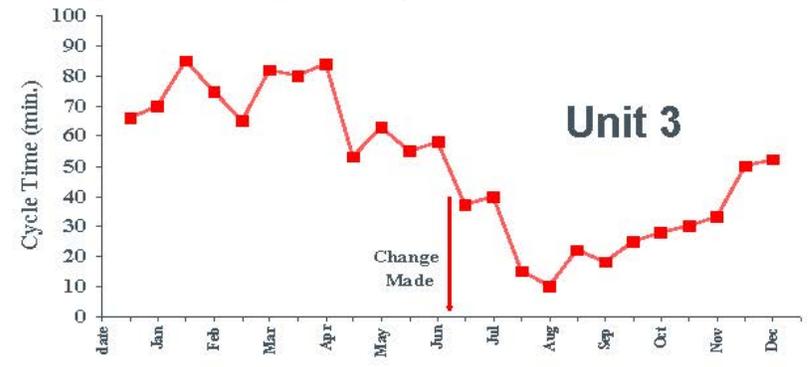
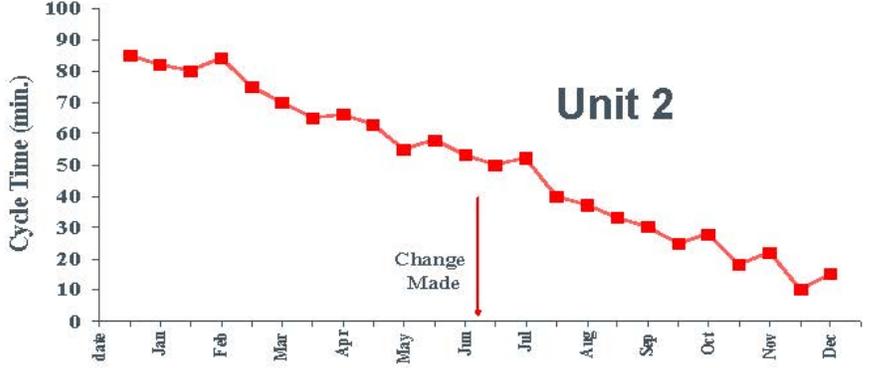
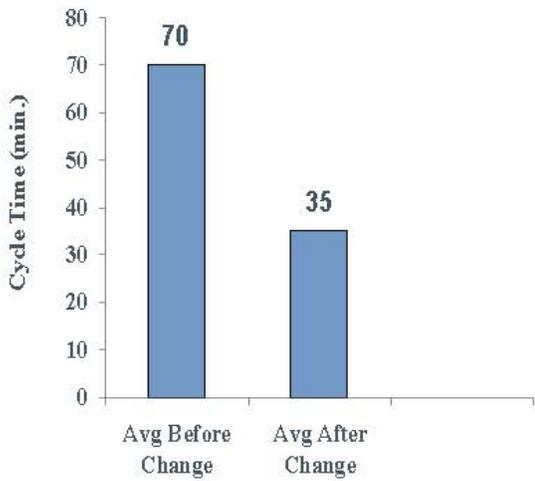
Summary: Different Conclusions Emerge

Aggregate Results for Three Departments within the Student Health Center



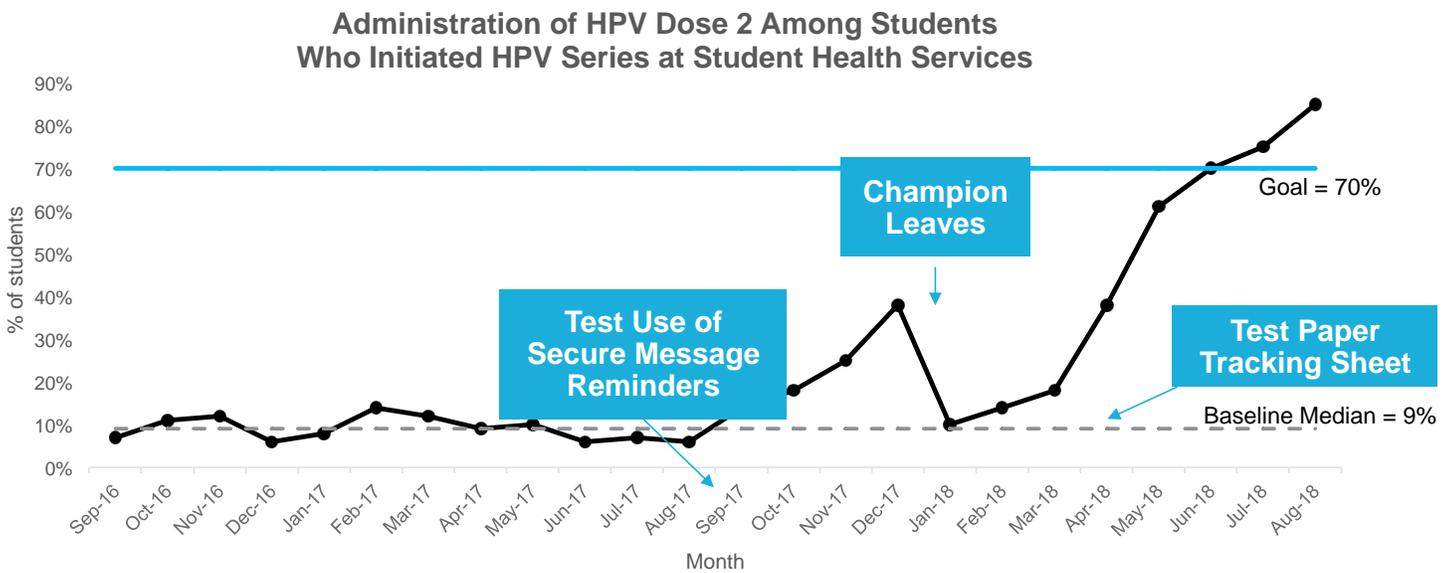


Cycle Time Results for Units 1, 2 and 3



Creating a Run Chart

Run charts can be made in any spreadsheet program such as Excel, or even by hand on graph paper.



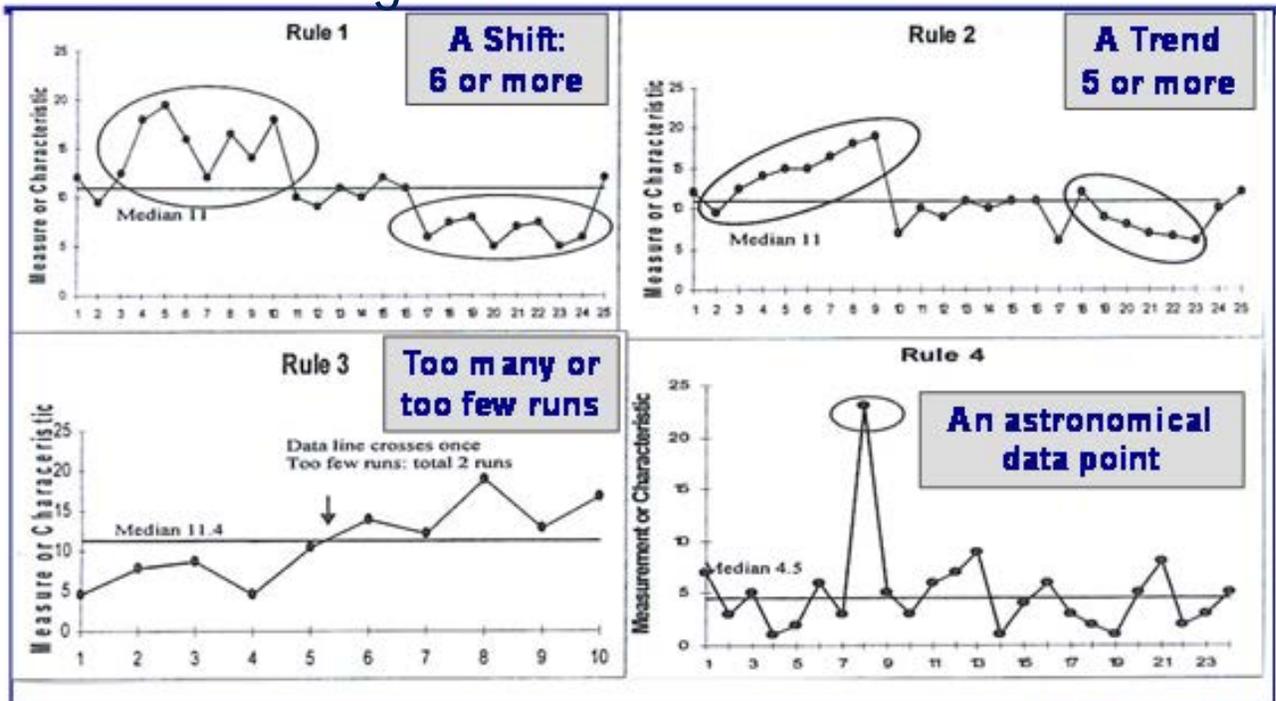


Minimize Your Variations

As we learned in Module 2, there will always be variation in performance over time. A goal of quality improvement is to minimize the range of variation over time. There are 2 types of variation:

Common Cause Variation <i>Typical variation due to the normal ebb and flow of systems.</i>	Special Cause Variation <i>Variation that is the result of an unusual event, outside the typical operation of the system.</i>
Inherent to the system or process	Not inherent to the process design
Due to regular, natural, or ordinary causes	Due to irregular or unnatural causes
Affects all the outcomes of a process	Affects some but not necessarily all aspects of the process
Results in a “stable” process that is predictable	Results in an “unstable” process that is not predictable
Also known as random or unassignable variation	Also known as non-random or assignable variation

4 rules indicating non-random signals that change in measure is occurring



Source: The Data Guide by L. Provost and S. Murray, Austin, Texas, February, 2007: p3-10.



Planning Your Measurement Strategy

- What are you trying to measure?
 - Level: Overall Aim v PDSA
 - What specific measure did you select for this purpose?
 - How are you defining the measure?
 - What's your data collection plan?
 - Who is responsible for collecting the data?
 - How often will the data be collected (e.g., hourly, daily, weekly or monthly)?
 - What are the specific data sources?
 - What is to be included or excluded ?
 - How will these data be collected?
 - What's your baseline measurement?
 - What are your targets or goals for this measure?
-



Sampling

- Measurement for improvement is meant to speed learning and improvement, not slow it down
 - Sampling can be a simple, efficient way to help a team understand how a process is performing
 - A good sample will have the same shape and location as the total population, but will have fewer observations
 - Ways to control sampling bias:
 - Simple random sampling
 - Proportional stratified random
 - Judgment sampling
-



Stratification

- Stratification is the separation and classification of data according to specific variables (such as time periods), demographics (such as age), or factors
 - The goal of stratification is to find patterns in data that will help us understand the causal factors at work
 - Examples:
 - By clinician
 - By location
 - Time (of day, day of the week, time of year)
 - Patient population (specific problem, demographics, medical plan membership)
-



Using Data for Quality Improvement

Tips for Effective Measurement

1. Plot data over time
 2. Seek usefulness, not perfection
 3. Track a family of measures
 4. Use sampling
 5. Integrate measurement into the daily routine
 6. Use qualitative and quantitative data
-



Analyzing and Understanding Your Data
