

Staying Ahead of the Curve: Development of a Prioritized Curricular Innovation and Improvement Plan Designed to Meet the Needs of Medical School Graduates in 2025

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Background

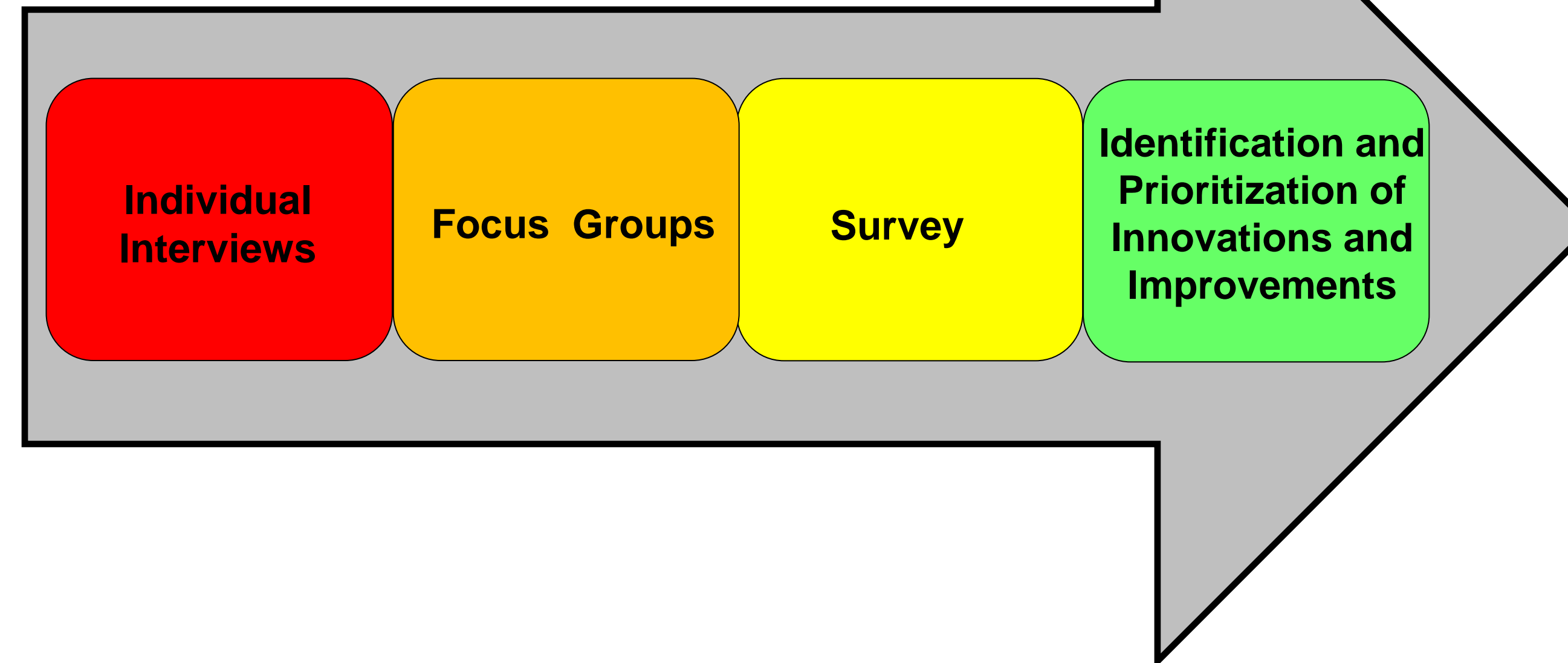
In 1910, Abraham Flexner published a report describing an educational model subsequently used in the United States to train medical students for over 100 years.(1) In the last several decades, there have been significant changes in medicine including expansion of scientific knowledge, technologic advances, changing healthcare needs, evolution of subspecialty practice, and rising education costs. For these reasons, many educational experts recommend changes to medical school programs. In 2013, the University of Colorado SOM completed a strategic plan that defined our educational strengths and opportunities. This is an optimal time to look ahead to the next ten years and define priorities for changes in our medical school program that will produce successful graduates in the years 2025 and beyond.

Methods

- **Pre-work** – Literature review to identify expert recommendations for curricular reform and “hot topics” in medical education.
- **Phase I** – One-on-one interviews with key campus educational leaders to define anticipated changes in medicine that might occur by 2025 and identify recommended advances/improvements for our educational program.
 - 30 one-on-one standardized interviews completed
- **Phase II** – Focus groups with those actively engaged in medical student education to explore, validate, or refute emerging themes from Phase I.
 - Focus groups with members of 3 SOM curriculum committees completed (53 faculty and student representatives).
 - Emerging themes grouped into four subject areas.
- **Phase III** (in progress) – Survey development and administration to define faculty and 4th year student opinions on anticipated changes in medicine and recommended educational innovations and improvements.
- **Phase IV** – Development of consensus recommendations and prioritization of medical student program innovations/improvements for the next 10 years.

Purpose

To create a consensus vision for innovations and improvements in our medical school program designed to meet the needs of graduates in the year 2025 and beyond.



Outcomes & Evaluation Strategy

Outcomes: The final outcome is the development of a consensus document describing the prioritized innovations/improvements our medical school should consider to ensure successful graduates in 2025

Metrics:

1. Student evaluation data (new experiences, curricular segments with expanded/reduced/new content).
2. Faculty evaluation of student performance (clinical years) related to topics with changes.
3. Graduate questionnaire data corresponding to topics with changes (pre and post implementation data).
4. Program Director survey- data on how our graduates perform.

Discussion

This project will develop consensus recommendations for innovations and improvements of the medical student educational program. Broad engagement of stakeholders is expected to facilitate buy-in for the final recommendations. Resources and faculty development will be required to implement some of the emerging themes and staged implementation will be necessary.

Summary

Next steps will include identification of resources, development of prioritized recommendations, discussion with stakeholders and phased implementation.

References

1. Flexner A, Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching, Bulletin No. 4, New York City: The Carnegie Foundation for the Advancement of Teaching, 1910.

Acknowledgments

Collaborators: Gretchen Guiton, PhD and Celia Kaye, MD, PhD

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Emerging Themes	Major Subject Areas			
	Educational Content	Curriculum Delivery	Experiential Learning	Individual Development and Advancement
	Population health	Flipped classroom	Team based care	Competency based advancement (Milestones)
	Health care systems and economics	Online curriculum or MOOCs	Quality and safety	Assessment of key competencies
	Genomic (individualized) medicine	Simulation	Telemedicine	Individualized education
	Leadership skills	Virtual experiences	Longitudinal relationships in clinical training	
	Quality and safety		Interprofessional education	
Professionalism		Increased outpatient focus		

ABSTRACT: 2014 ELAM Institutional Action Project Poster Symposium

Project Title: Staying Ahead of the Curve: Development of a Prioritized Curricular Innovation and Improvement Plan Designed to Meet the Needs of Medical School Graduates in 2025

Name and Institution: Marsha Anderson, MD; University of Colorado SOM

Collaborators: Gretchen Guiton, PhD, Celia Kaye, MD, PhD

Background, Challenge or Opportunity: In 1910, Abraham Flexner published a report describing an educational model subsequently used in the United States to train medical students for over 100 years. In the last several decades, there have been significant changes in medicine including expansion of scientific knowledge, technologic advances, changing healthcare needs, evolution of subspecialty practice, and rising education costs. For these reasons, many educational experts recommend changes to medical school programs. In 2013, the University of Colorado SOM completed a strategic plan that defined our educational strengths and opportunities. This is an optimal time to look ahead to the next 10 years and define priorities for changes in our medical school program that will produce successful graduates in the year 2025 and beyond.

Purpose/Objectives: To create a consensus vision for innovations and improvements in our medical school program designed to meet the needs of graduates in the year 2025 and beyond.

Methods/Approach:

- **Pre-work** – Literature review to identify expert recommendations for curricular reform and “hot topics” in medical education.
- **Phase I** – One-on-one interviews with key campus educational leaders to define anticipated changes in medicine that might occur by 2025 and identify recommended advances/improvements for our educational program.
 - 30 one-on-one interviews completed
- **Phase II** – Focus groups with those actively engaged in medical student education to explore, validate, or refute emerging themes from Phase I.
 - Focus groups with members of 3 SOM curriculum committees completed (53 faculty and student representatives).
 - Emerging themes grouped into four subject areas.
- **Phase III (in progress)** – Survey development/administration to define faculty and 4th year student opinions on anticipated changes in medicine and recommended educational innovations/improvements.
- **Phase IV** –Development of consensus recommendations and prioritization of medical student program innovations/improvements for the next 10 years.

Outcomes and Evaluation Strategy: At Phase II end, emerging themes were grouped into subject areas:

Emerging Themes for Medical Student Program Innovation/Improvement

Major Subject Areas				
	Educational Content	Curriculum Delivery	Experiential Learning	Individual Development and Advancement
Emerging Themes	Population health	Flipped classroom	Team based care	Competency based advancement (Milestones)
	Health care systems and economics	Online curriculum or MOOCs	Quality and safety	Assessment of key competencies
	Genomic medicine	Simulation	Telemedicine	Individualized education
	Leadership skills	Virtual experiences (e.g. anatomy)	Longitudinal relationships in clinical training	
	Quality and safety		Interprofessional education	
	Professionalism		Increased outpatient focus	

The final outcome is the development of a consensus document describing the prioritized innovations/improvements our medical school should consider to ensure successful graduates in 2025.

Metrics: Will include data relevant to changes made in the program; student evaluation data, faculty evaluation of student performance, Graduate questionnaire data, and Program Director Survey data.