**Project Title:** Increasing Medical Student Research Participation in the SOM at TTUHSC.

**Name and Institution**: Jannette Dufour
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**Background, Challenge or Opportunity:** Medical student participation in research is important to increase their understanding of clinical and biomedical research. In addition, it is becoming increasingly important for medical students to have research experience for acceptance into highly competitive residency programs. Currently at TTUHSC, 60.9% of medical students graduating from the SOM participate in research. One goal of our strategic plan is to increase medical student participation in research to 70%, which is above the national average.

**Purpose/Objectives**: The goal of this project is to increase medical student participation in research by evaluating the current state and then identifying ways to increase participation.

**Methods/Approach**: The first part of this project was to evaluate the current situation. Information on medical student participation in research, presentations and publications as measured by the AAMC Medical School Graduate Questionnaire, the AAMC Mission Management Tool and internal data was collected. Information was also gathered on NIH funding and the Blue Ridge Institute for Medical Research Ranking of the SOM. The second part was to develop and implement a plan to increase medical student research participation. This included increased advertisement, development of effective ways to guide students and mentors interested in participating in research, and development of surveys for mentors and students to identify additional ideas to improve the program.

**Outcomes and Evaluation Strategy**: Overall there has been a 2-3 fold increase in NIH research dollars awarded to the SOM with a corresponding increase in rank reported by the Blue Ridge Institute for Medical Research from 120 of 130 medical schools in 2007 to 106 of 138 medical schools in 2014. At the same time there has been an increase in medical student participation in research from 39.7% in 2009 to 60.9% in 2016 (1.5 fold increase) as measured by the AAMC Mission Management Tool. This is compared to a change in the national average from 58% in 2007 to 66.5% in 2016 (1.1 fold increase). Moreover, student participation in our summer research program has grown from 28 in 2010 to 79 in 2015, with a corresponding increase in mentors from 23 in 2010 to 54 in 2015. To continue to grow the research program, I have increased advertising by emphasizing the importance of research to first year medical students. I have also advertised our medical student summer research program by sending emails and posting on Facebook and Sakai. We have created a website with information on research and a list of mentors looking for students and also host an information lunch in February where students and potential mentors can meet. As a direct result of comments I received at ELAM in January, I prepared a short presentation on the medical student research program, which I presented to the Basic Science Chairs, the Clinical Chairs and at the General Faculty Meeting. I have also developed a checklist and surveys to guide students and mentors, and evaluate the program, respectively. In the future we will look at developing research honors, electives and certificates as well as faculty training and workshops to continue to improve the program. Overall we have seen growth in medical student participation in research and with ideas developed from ELAM we expect continued growth.

# INCREASING MEDICAL STUDENT RESEARCH PARTICIPATION IN THE SOM AT TTUHSC

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## BACKGROUND

Medical student participation in research is important to increase their understanding of clinical and biomedical research. In addition, it is becoming increasingly important for medical students to have research experience for acceptance into highly competitive residency programs. Currently at TTUHSC, 60.9% of medical students graduating from the SOM participate in research. Part of our strategic plan is to increase medical student participation in research to 70%, which is above the national average.

## OBJECTIVE

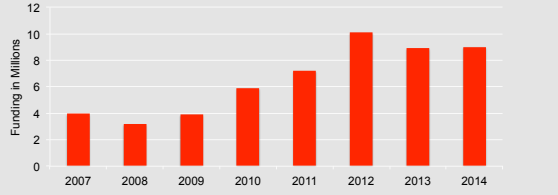
The goal of this project is to increase medical student participation in research.

- Gather information regarding research funding and medical student research participation in order to evaluate the current situation.
- Develop a plan to increase research participation of medical students in the SOM at TTUHSC.

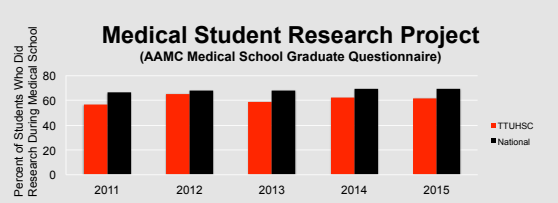
## METHODS (Part 1)

**Evaluate the current situation**

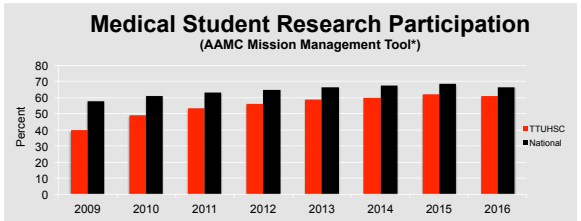
The first part of this project was to evaluate the current situation. Information was gathered on NIH funding and the Blue Ridge Institute for Medical Research Ranking of the SOM. Information on medical student participation in research, presentations and publications as measured by the AAMC Medical School Graduate Questionnaire, the AAMC Mission Management Tool and internal data was collected.




Funding: There has been a 2-3 fold increase in NIH research dollars awarded to the SOM with a corresponding increase in rank reported by the Blue Ridge Institute for Medical Research from 120 of 130 medical schools in 2007 to 106 of 138 medical schools in 2014. Despite this increase NIH funding and total federal research grants and contracts remain at 12% and less than 5% of the national average, respectively.

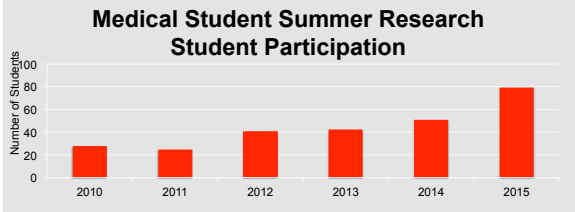


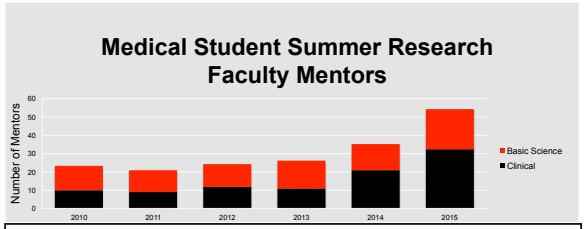

Increase in medical student participation in research from 56.7% in 2011 to 61.9% in 2015 (5.2% increase) compared to a change in the national average from 66.3% in 2011 to 69.3% in 2014 (3.1% increase) as measured by the AAMC Medical School Graduate Questionnaire.



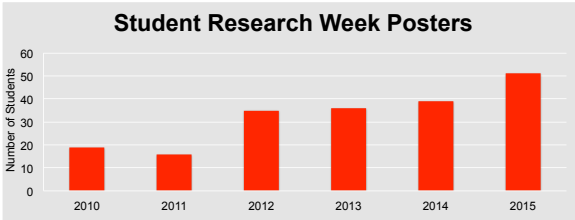

Increase in medical student participation in research from 39.7% in 2006-2008 to 60.9% in 2013-2015 (1.5 fold increase) as measured by the AAMC Mission Management Tool. This is compared to a change in the national average from 58% to 66.5% (1.1 fold increase) over the same time period.

*Average of previous 3 years.

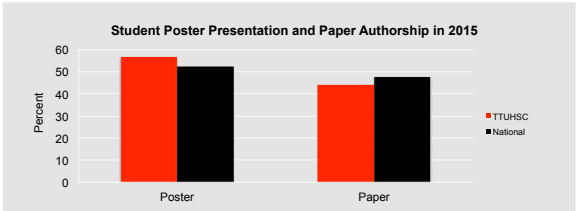



Participation in our medical student summer research program has grown from 28 in 2010 to 79 in 2015, with a corresponding increase in faculty mentors from 23 (10 clinical and 13 basic science) in 2010 to 54 (32 clinical and 22 basic science) in 2015.




Increase in medical student poster presentations at the TTUHSC Student Research Week from 19 in 2010 to 51 in 2015.




TTUHSC medical students presented more posters (56.6 versus 52.5) and were authors on almost the same number of papers (44.2 versus 47.8) when compared to the national average as reported in the AAMC Medical School Graduate Questionnaire.

## METHODS (Part 2)

**Develop/implement a plan to increase medical student participation in research**

The second part was to develop and implement a plan to increase medical student research participation. This included increased advertisement, development of information to assist students and faculty interested in participating in research, and development of surveys for faculty and students to identify ways to improve the program.

**Methods to Increase Medical Student Research Participation**
**http://www.ttuhsc.edu/som/summer.aspx**

| | |
|---|---|
| Student Advertising | Lecture, email, Sakai, Facebook |
| Information | Website with program information and available research projects, checklist with steps to find mentors, lunch for students to meet with potential mentors |
| Faculty Mentors | To increase mentors I presented information on the program at the Basic Science Chairs, Clinical Chairs and General Faculty Meeting |
| Surveys | For students and mentors to identify ways to improve the program |

## CONCLUSIONS

Overall we have seen growth in NIH funding, medical student participation in research, and involvement of faculty mentors. We will continue to evaluate our progress by comparing with initial data and with using ideas developed while participating in the ELAM program we expect continued growth.

In the future incentives for students such as research honors, a research elective and a research certificate will be developed. Training and workshops for faculty and students on research project development, preparation of abstracts, posters and publications will be created to continue to improve the program.

## ACKNOWLEDGEMENTS

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