



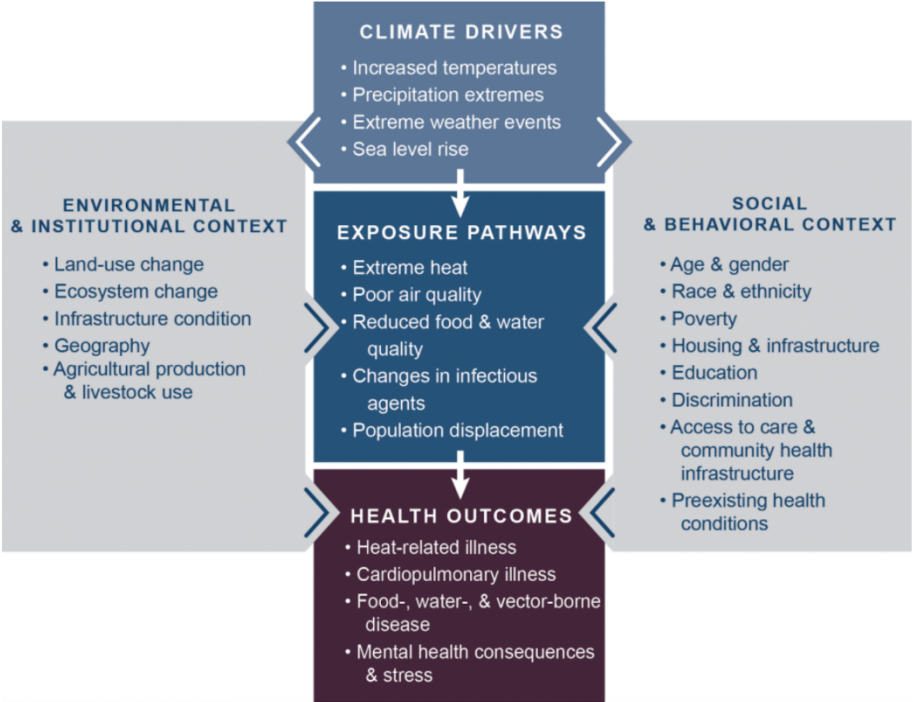
**The Biomedical Engineering Society of The University of Texas at
Austin**

2022 Case Competition



Background

Climate change is a phenomenon that affects all communities. However, constant hazards such as excessive greenhouse gas emissions and water contamination disproportionately plague low-income communities. These hazards can cause higher rates of respiratory illnesses, toxic exposures, heat strokes, bacterial diseases, etc. to occur in these communities. Furthermore, climate change can also lead to natural disasters such as flooding and wildfires, which greatly affect low-income households more than urban households due to poor infrastructure and lack of affordable healthcare for uninsured individuals. With this in mind, environmental hazards must be urgently dealt with in low-income populations since they are hit the hardest. The reconstruction of current approaches that exist to combat climate change is essential to the advancement of healthcare in low-income areas.



<https://health2016.globalchange.gov/>



Objective

Design and present a solution that can help low-income communities recover from damages caused by climate change. While constructing your case, pay close attention to any underlying causes as to why low-income communities are greatly affected by this phenomenon. They might not already have the facilities and resources to quickly recuperate after natural disasters or treat the illnesses that are associated with the hazards. Keep in mind economic, social, and ethical issues that may arise as a result of your solution. Consider a feasible solution that can be efficiently implemented and be sure to include how it will be financially sustainable during its effective time period. Often, inclusive design results in a better product or experience for everyone, even those not directly affected by the changes. Additionally, discuss why your idea is more effective than previous solutions to this problem. Be prepared to refute any potential arguments against your solution.

Your solution can include but is not limited to: create a biomedical device, software application, biopharmaceutical solution, or policy change

Things to consider

- Your solution may be a physical object or something intangible
- Research previous solutions to solve this problem
- Identify a niche area in your solution
- Make a novel and creative solution
- Who else benefits from the solution?
- Is the solution feasible?
- Keep the financial aspect of your solution in mind



Summary

A successful presentation will include an innovative solution to the problem at hand, thorough research of the solution, a plan to implement the solution that includes a thorough understanding of the risks and rewards, potential pitfalls, opportunities for further development, relevant financial information such as business development, marketing, funding and expenses, etc., and the long-term impact of the proposed solution in an organized and aesthetically pleasing presentation.

Competition Day

The competition will be held on Saturday, December 3, 2022, at 9 am. Teams will be notified of their presentation times beforehand. Each team will have 15 minutes for their presentation, 10 minutes to present their solution and 5 minutes to answer questions from the judges. Dress code for presenters is business professional.

The 1st place team will be awarded \$350. The 2nd place team will be awarded \$250. The 3rd place team will be awarded \$150.

prizes are subject to change

Judging Criteria

Idea:

- Novel
- Creative
- Practical

Implementation:

- Net Positive Impact
- Minimal Ethical and Cultural Effects
- Economic and Technical Feasibility

Proposal:

- Business Plan for Implementation
- Relevant Financial Information
- Long-term Effects

Quality of Presentation:

- Neat and Organized
- Smooth Transitions
- Contains all necessary information

If you have any questions, please contact:

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