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Health innovation: Contributing to society through simple actions

Healthcare systems are complex, costly, and influenced by many interconnected factors. While large-scale solutions and advanced technologies often dominate discussions on healthcare improvement, meaningful impact can also emerge from simple, well-designed interventions. By focusing on real user needs—those of patients, clinicians, and caregivers—it is possible to create innovations that are practical, affordable, and capable of improving healthcare outcomes across diverse contexts.

This talk presents concrete examples of health innovation driven by user-centered design principles rather than technological complexity. Through cases spanning acute care, chronic conditions, inclusive technologies, and neonatal care—including burn treatment devices, infection-reducing solutions for orthopedic surgery, prosthetic technologies for Paralympic athletes, assistive devices for essential tremor, and simple improvements in oxygen delivery for preterm newborns—the presentation demonstrates that impactful health innovation is within reach of engineers, clinicians, students, and citizens alike. By adopting a people-first mindset and embracing simplicity, contributing to better healthcare becomes both achievable and meaningful.



Figure: Examples of biomedical innovations at Los Andes University