

**RADFORD UNIVERSITY**

Office of Undergraduate Research and Scholarship

**29<sup>th</sup> Student  
Engagement Forum**

# **Providing Educational Materials to Amputees in Honduras**

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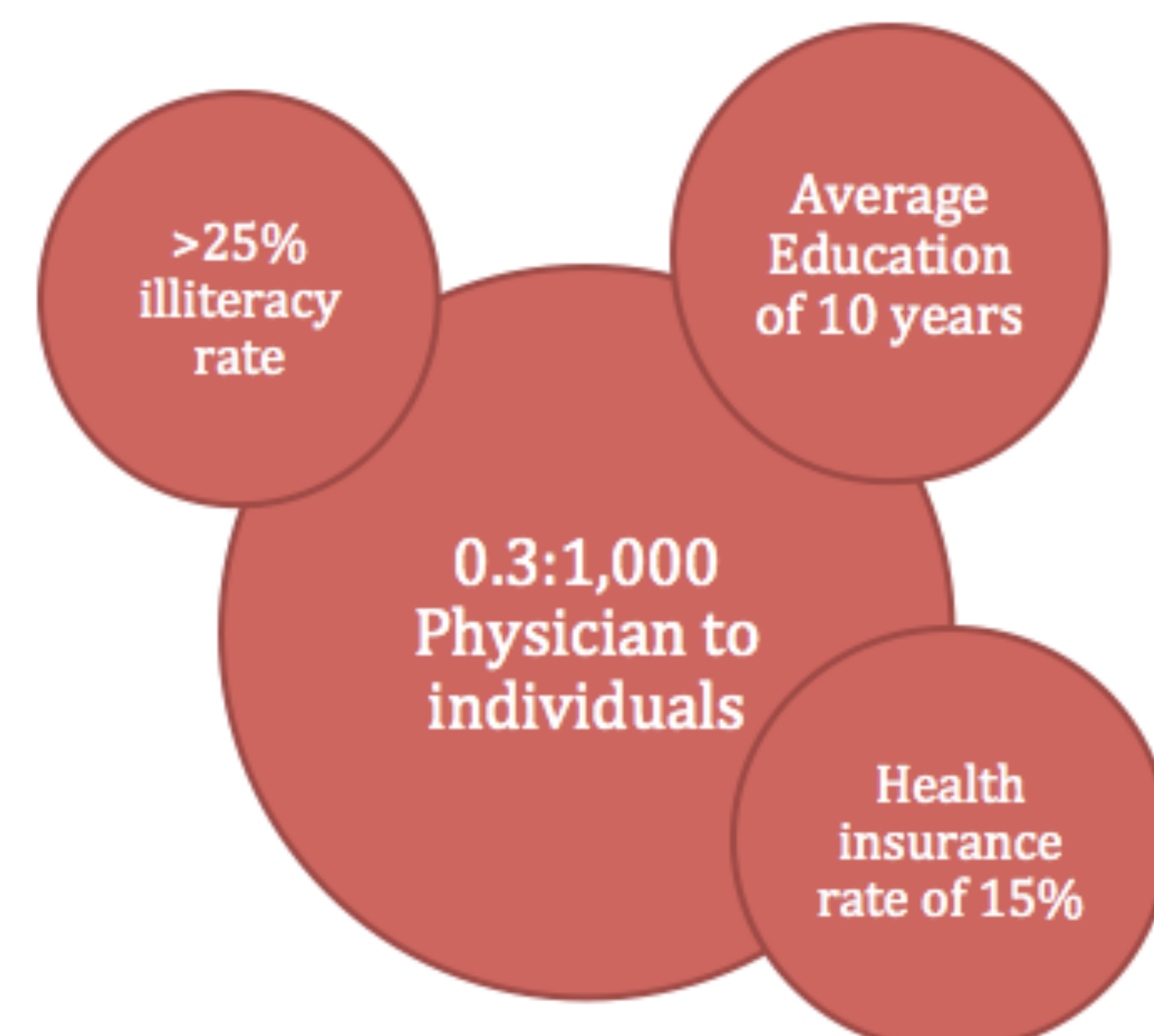
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## Introduction

Hope to Walk (HTW) is a non-profit organization that offers low-cost prosthetic limbs and educational materials to under-served communities around the world. Their mission is to offer high quality prosthetic legs that cost \$100 which is significantly cheaper than commercial prosthetics that retail anywhere from \$10-25,000. HTW also focuses on educating and training patients to use their new prosthetic, thereby increasing independence and decreasing depression and isolation associated with lower limb loss. HTW and Radford University Department of Physical Therapy (RUDPT) collaborated and identified a gap in the current educational materials provided to lower limb amputees. As part of a Service-Learning Project (SLP), students and faculty at RUDPT worked together to create two educational handouts for limb care and rehabilitation after lower limb amputation and prosthetic fitting to be distributed to HTW clients globally.

## Purpose

To create educational tools for individuals with limb amputation in underserved countries, like Honduras, to be used by non-profit organizations.



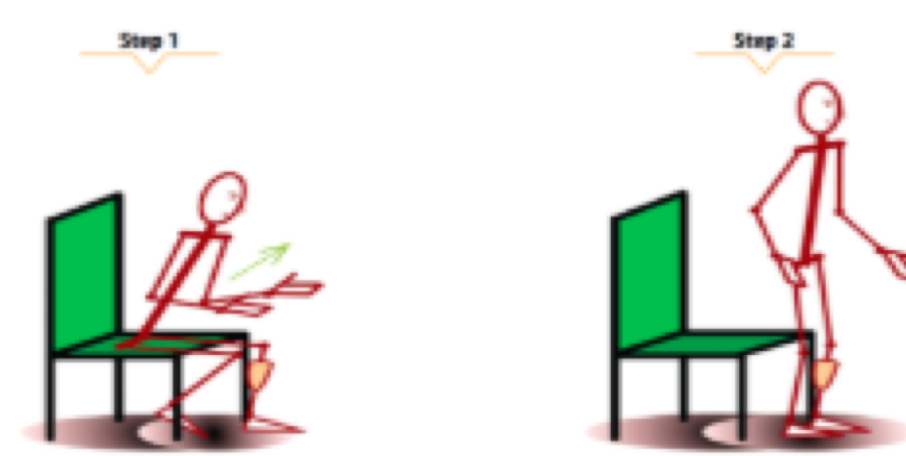
## Methods

A population assessment of Honduras was conducted to evaluate the needs of the low-income communities currently served by Hope to Walk. This assessment helped determine patient education level, access to medical services, and societal and work influences in order to better tailor educational materials to this population. A review of the literature on the Honduran population was conducted and the resources were selected based on relevance of information, date of publication (within 5 years), and journal quality. Google Scholar was used as the search engine and the resources selected included the Central Intelligence Agency, the International Diabetes Federation, and the World Bank. After a review of resources, information was obtained to create a final population assessment.

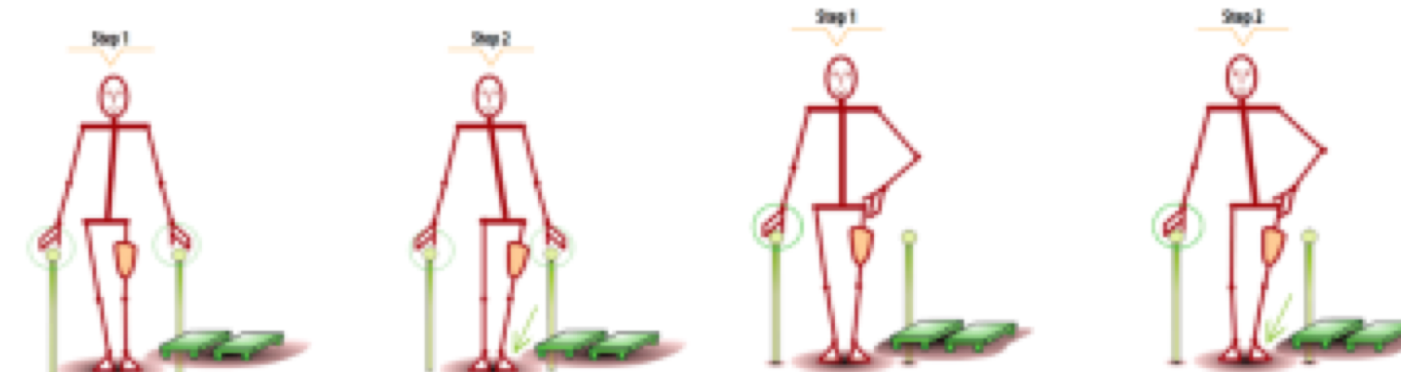


### Getting Back to Walking with Your New Hope To Walk Prosthetic Leg

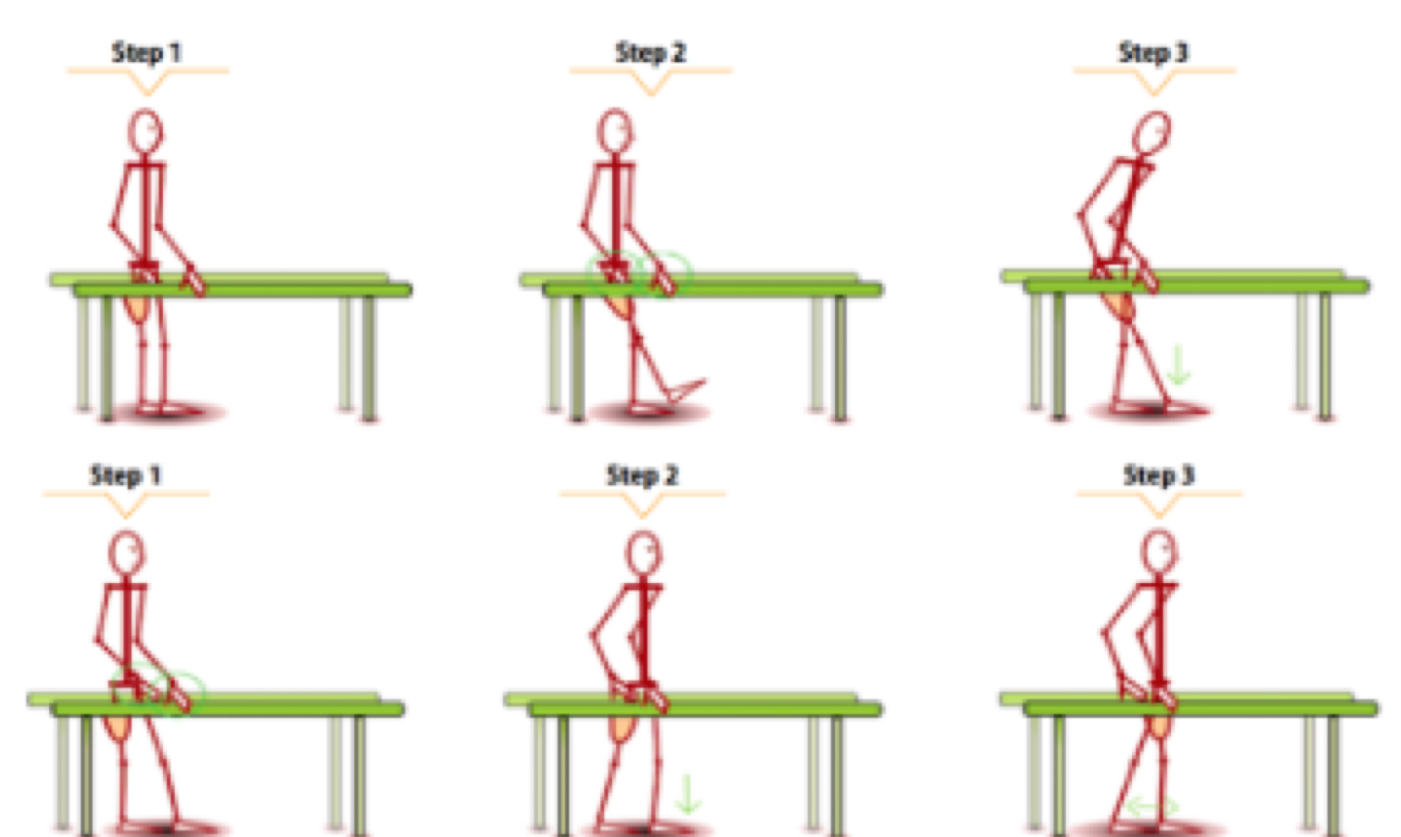
**1. Standing up:** Place your intact foot slightly back under your knee, set your prosthetic foot next to your foot, lean forward and with weight through both legs, stand up.



**2. Weight shift:** Move your weight side to side from one leg to the other, front and back using a chair, wall, or table for support. Once able, do this without using your hands for support.



**3. Stepping:** Step forward, backwards, and to the side. Start with the prosthetic leg in the back and work towards stepping out onto the prosthetic leg. Stand next to a stable surface such as chairs, table or wall for safety.



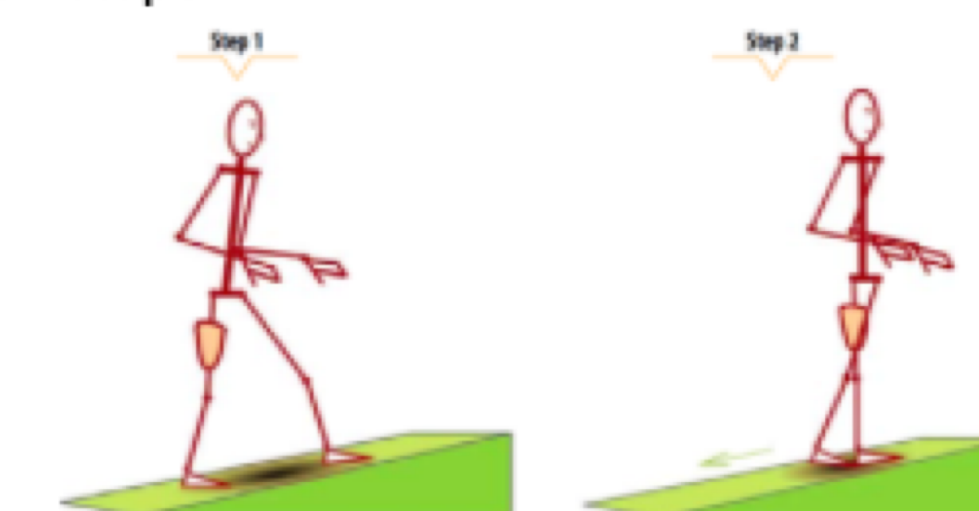
**4. Standing on one leg:** Move weight onto your prosthetic leg. Lift your other leg up. For safety, stand next to a chair or other stable object you can hold on to. When you feel ready, kick your leg forward, to the side, and backwards without touching the ground.



**5. Walking:** Walking along a wall, put weight through your prosthetic leg and put the intact leg in front. Bring the prosthetic foot forward to the other leg. When you feel comfortable, try bringing the prosthetic foot past the other leg. Progress by walking along the wall without using your hands.



**Walking Up a Hill:** Lean your body forwards over the prosthetic leg. Take very small steps.  
**Walking Down a Hill:** Lean your body backwards to try to keep your hips over your heels. Take small steps.



## Results

Results indicated that individuals living in Honduras have limited access to healthcare with a physician ratio of 0.3/1000 persons and a health insurance rate of 15%. Reasons for these limitations to healthcare include inadequate number of doctors, variable medical supplies, gaps in infrastructure, financial constraints, and sociopolitical factors. Social factors indicated Hondurans received an average 10 years of education, with illiteracy affecting more than 25% of the population over 15 years old. Most of the population in Honduras lives in rural areas in small villages or isolated settlements. While they generally live an isolated life in the mountains, they strongly value family and have a passion for soccer.

## Discussion

Per the results and the needs of Hope to Walk, two handouts were produced: one with information on limb care, and one with rehabilitation exercises. Given that individuals in Honduras have limited access to healthcare, the exercise handout included progressions to help patients continue to functionally improve since they typically would not have many follow-up appointments. Accounting for low literacy levels and translation barriers, the handouts included simple, straightforward language and many pictures to help with understanding. The exercises incorporated aspects of life that were found to be important to Hondurans, including walking and kicking a ball.

## Conclusion

A student-conducted population assessment of Honduras evaluated literacy, education levels, and access to medical and rehabilitative services. Based on this assessment and feedback from those working with amputees in Central America, there was a great need for easily understood medical and rehabilitative education. The two handouts created addressed this need and will be given to HTW clients. Additional research is needed to determine the effects of these resources and the impact on functional and recreational activity engagement in the population. In the future, the creation of an instructional video to accompany these resources would be beneficial.

## References

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