

# Shedding Light on Native American Health Disparities Utilizing Long Wave Infrared Thermography

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## Introduction

Native Americans have a significantly higher rate of health disparities than other populations in America. Indian Health Services (IHS) studies show higher rates of diabetes, traumas, chronic kidney disease, and cancer. Native American skin is very difficult to assess due to the dark tones of the skin. In fact, the two top skin scales, Fitzpatrick and Monk, are criticized for “Eurocentric bias” due to **insufficient representation of native American skin tones**. Our 198-bed, level III trauma center in Farmington, NM has a patient population of over 45% Native Americans.

## Methods

Long wave infrared thermography (LWIT) was implemented as an adjunct to the 4-Eyes in 4 Hours admission skin assessment. The bedside admission nurse is responsible for imaging standard protocol locations, skin discolorations, and wounds. The nurse analyzes the images to look for thermal changes in areas of concern/risk which in turn, helps guide the nurse on what interventions are needed to keep the skin safe and protected. The Wound Care Team performs a quick daily audit of images to triage/prioritize consults.



Photo:

Nurse imaging at bedside



## Results

The ability to capture vascular skin issues and pressure injuries in darker-colored skin tones upon admission has been a game changer for the facility. In addition, In this high-risk population, LWIT aids the wound care team to determine if the area is a pressure injury or if the discoloration is more superficial /different etiology. The interdisciplinary team critically thinks to provide the best interventions and guide the plan of care to help save limbs and prevent further skin damage. The care provided, in conjunction with LWIT, helps address health disparities and enables patients to get the care needed to get control of the illnesses they face.

## Discussion

Implementing LWIT resulted in a significant decrease in pressure injury prevalence, the ability to capture and treat vascular wounds and ischemic limbs with quick interventions and providing excellent care for the high population of Native Americans. To date, the facility has captured over 41,000 images on 14,000 patients.

## References

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