



Innovations for our health from Concepción, Chile.

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In recent times, creativity and innovation have allowed the human being to solve different problems that affect our daily lives, allowing the improvement of our quality of life in multiple aspects. Thus, the health sector is constantly looking for new solutions (Cartes-Velásquez, 2019).

It should be noted that innovation in health not only arises from large international companies. Innovation in health is necessary to identify a “pain” that alters the timely provision of care or to recognize an opportunity that allows improving health care. An example of the above are the following innovations developed by Chilean startups and their teams:

Skinnet: A pediatric device that monitors the evolution of a sick child, in order to inform and alert parents of their status. Specifically, Skinnet records 24/7 temperature, heart rate, position of the child and blood oxygen level. These parameters can be assessed by parents in real time from anywhere through an App, as Skinnet sends the data to the cloud via WiFi or Bluetooth. In addition, Skinnet will alert parents in case of identifying an abnormal pattern. Skinnet seeks to be a tool that improves the care of five million children who go through a medical emergency annually.

Footshot: A device aimed at the prevention of ulcers in the sole of the foot in diabetic patients, in order to avoid amputation. FootShoot is based on scanning through the use of thermal cameras that allow to immediately identify anomalies in the examined area, therefore, it reduces costs and detection time. Footshot allows to predict areas prone to develop ulcers with 90% accuracy. FootShoot seeks to avoid the functional, productive and emotional damage of about 425 million diabetic people in the world.

SensorCare: A device that monitors the state of a bedridden person, in order to avoid pressure ulcers in the patient and inform their caregiver and family members about their status. SensorCare is characterized by being a diaper with integrated sensors capable of measuring urine content and patient’s position. In addition, it has wireless connectivity, which makes it possible to recommend a diaper change, move position in bed and risk of falling, through a notification on App or PC. SensorCare aims to improve the quality of life of more than 600,000 Chileans who are bedridden.

ActiCare: A device that seeks to encourage the care and support of the elderly in their daily lives, in order to reduce the risks associated with old age. ActiCare is defined as a non-invasive bracelet for the elderly, which has: GPS, physical activity and pressure sensors. In addition, ActiCare simplifies the call to a family member using an SOS button. The data sent by the bracelet are visualized by means of an App, which also allows to define mobility safety rings for the elderly. ActiCare seeks to be a tool that timely reports on decompensations, falls and disorientation events suffered by an elderly person.

Chancleta: A device that encourages the exercise of the elderly in a playful manner at home, in order to prevent the falls associated with old age. Chancleta is an intelligent footwear that senses foot movements and facilitates the use of video games specialized for balance training. Chancleta records the training sessions in order to

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assess the effectiveness of the therapy and identify parameters associated with the fall. Chancleta seeks to avoid the damage associated with a fall and improve the quality of life of our elderly.

The innovations described above could be characterized by having an origin based on the observation of a real problem and the constant feedback of its potential users and / or customers. These startups show that in Chile it is possible to develop innovative products that focus on improving the health of our population and diversifying the productive matrix of our country.

REFERENCES

Cartes-Velásquez J. CePIS, a great opportunity for innovation in health. *Int J Med Surg Sci.* 2018; 5(3): 91-92.