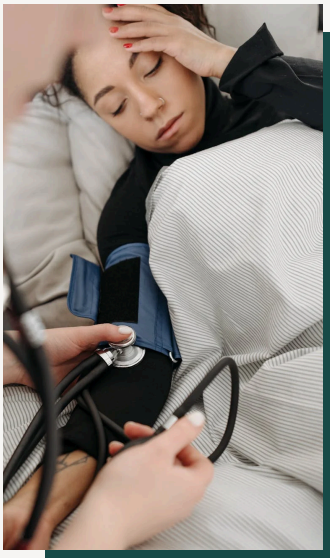
AI4D

Diagnosing and managing Pre-Eclampsia in Colombia

The Public Health Threat

- Hypertensive disorders account for 50,000 maternal deaths globally each year, and more than one-third of maternal deaths in Colombia.
- In rural regions, where access to specialists, clinical knowledge, and technologies is limited, women face higher risk.
- General practitioners and other frontline rural healthworkers often struggle to identify and treat complex conditions.
- Obstetric emergencies are frequently identified too late, delaying interventions that could save lives.



An Innovative Solution

A mobile application that uses AI to assist healthcare professionals in making timely and accurate decisions during obstetric emergencies

The Story

Dr. Gustavo Cruz Suárez is a cardiovascular anaesthesiologist at Fundación Valle del Lili (FVL), where he leads the institution's Artificial Intelligence Unit, a pioneering initiative in southwestern Colombia. Through the Hospital Padrino Strategy, FVL collaborates with more than 300 hospitals across Colombia.

Responding to persistent gaps in maternal care, Dr. Cruz and his team launched a clinical decision support tool.

The Result

- Preeclapp has been developed, validated, and is already in use within hospitals that are part of the Hospital Padrino network
- The project is now in its scale-up phase, with plans to extend the tool's use across 300 hospitals.

"We aim...to standardize the management of these conditions across Colombia and improve care in areas where healthcare access is difficult."

Dr. Gustavo Cruz

Learning

- One of the first challenges faced by the team was the lack of available global datasets to develop predictive algorithms.
- To overcome this, they turned to institutional data, carefully ensuring compliance with ethical standards.

Community Engagemement

A significant challenge was helping healthcare workers become familiar with the tool.
The team held trainings for healthcare workers, using their input to help create a user manual.

"Once they got familiar with it and understood what Preeclapp was for, usage became much easier."

Dr. Gustavo Cruz

Moving Forward

- The team plans to add new features to Preeclapp to support other areas of maternal care, including labour management, prenatal monitoring, postpartum haemorrhage, and sepsis.
- Upcoming updates will introduce predictive AI, geo-referencing, and real-time clinical monitoring.
- Chatbots and other tools are also being developed to provide broader support throughout the maternal care journey.

"When you have many experts, it can be hard to reach consensus. But Preeclapp is a great example: many experts were able to come together to create a tool for the community."

Dr. Gustavo Cruz

Capacity Built

The team embraced a collaborative, multidisciplinary approach to designing and implementing an AI-based clinical support tool for use in complex healthcare settings.

User Story

"One day during a shift, a pregnant woman with a hypertensive disorder arrived. We performed clinical and laboratory tests and decided to use the app to guide our diagnosis. We were able to make an accurate diagnosis and better guide the treatment."

Dr. Jorge Aldana, Obstetrics resident

Learn more

- AI4D: https://www.ai4d.ai
- CLIAS: https://clias.iecs.org.ar
- Fundacion Valle Lili: https://valledellili.org
- The Global Health Network: https://ai-globalhealthresearch.tghn.org/

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