

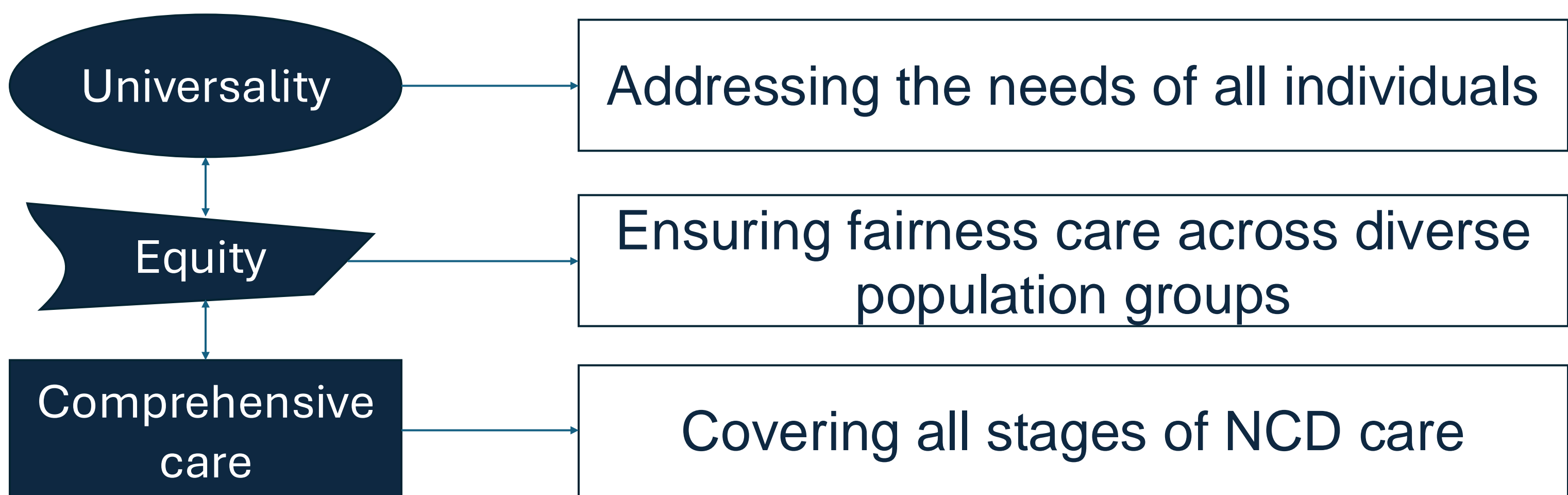
'Machine learning' learnings from the Brazilian Health System to address the global burden of noncommunicable diseases

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Background, objectives and methodology

- Noncommunicable diseases (NCDs), including multimorbidity, are major global health challenges
 - The NCDs care requires a comprehensive life-course approach (all levels of prevention)
 - Machine Learning (ML) shows promise in tackling the burden of NCDs
- Principles of the Brazilian Unified Health System (SUS) align with the theoretical framework for guiding the appropriate development and adoption of ML models that consider the complexity of addressing NCDs



Major Findings

Since its establishment in 1988, Brazil's health system has significantly improved the health of its population. Evidence demonstrates the positive impact of this system, particularly through its primary health care, based on the Family Health Strategy, in enhancing chronic condition management

Lessons Learned

The principles underlying SUS serve as a global exemplar, especially for the Global South

Policy Recommendation

This study proposes adopting the Brazilian health system's principles to guide the development and monitoring of ML innovations for addressing NCDs worldwide. By creating models and solutions based on these principles, we can align with SDGs and promote equitable technology use throughout the entire health care continuum, reinforcing the concept of health as a universal right. The use of SUS principles in this process can ensure that technology is used in a way to leap the hurdles of chronic diseases

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