

Armed Forces Hospital Taif Region Prince Sultan Military Hospital



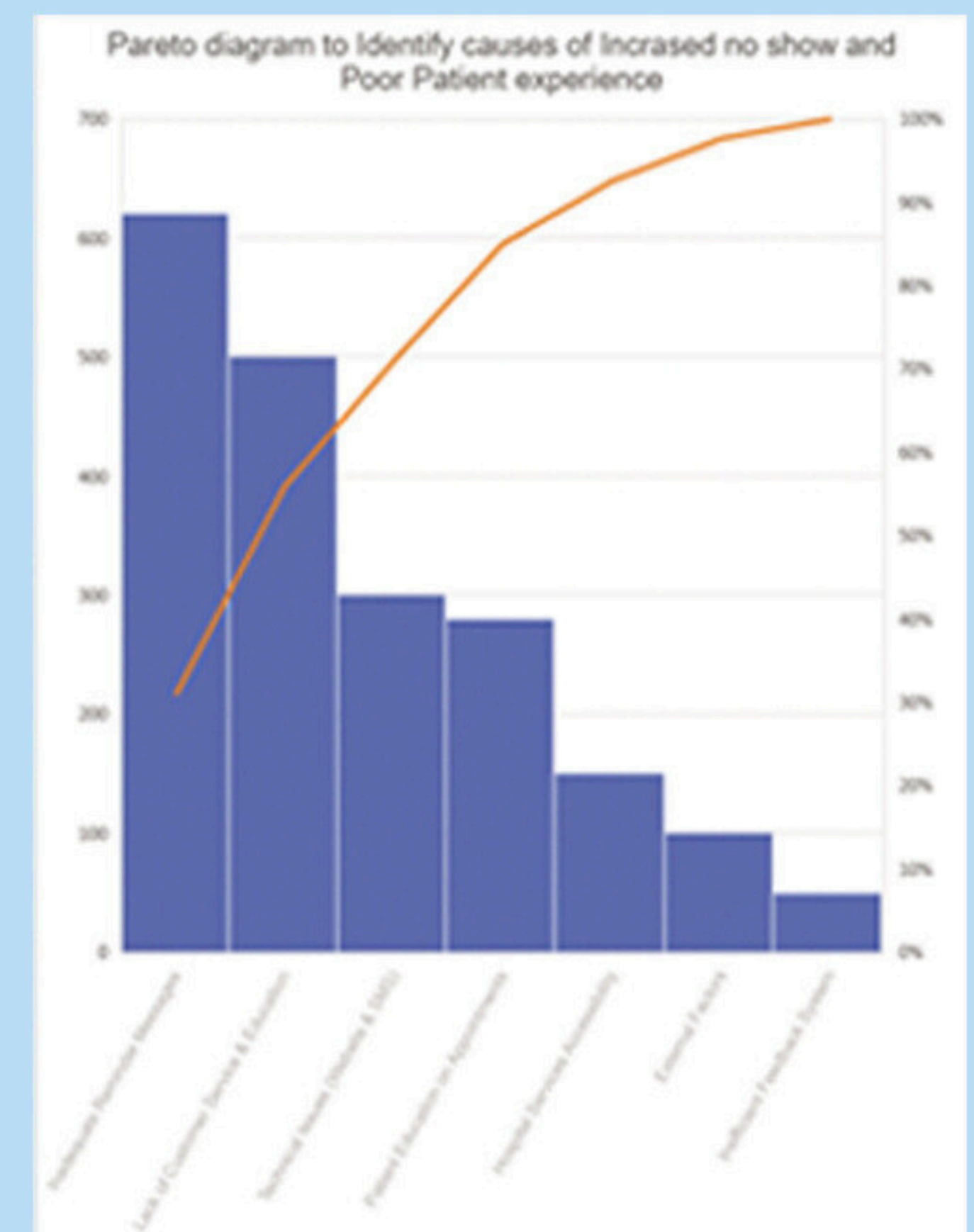
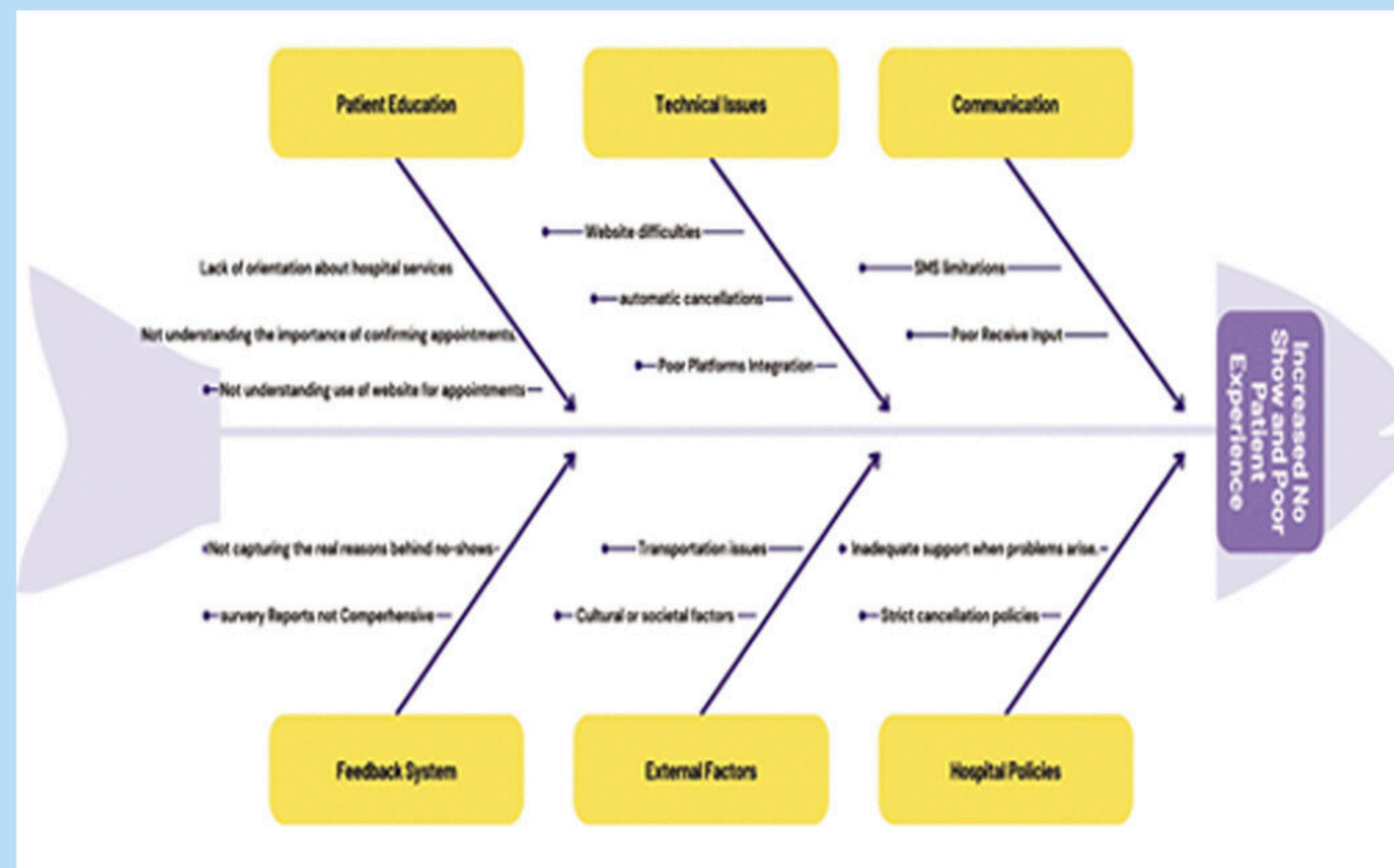
Artificial Intelligence in Healthcare: Advancing Patient Experience and Operational Efficiency

Background and local problem:

"No Show" appointments have become a significant issue in healthcare, impacting scheduling and system efficiency. At Prince Sultan Military Hospital Clinics, the "No Show" rate reached 30% by May 2023, peaking at 65% in specific clinics. Patient satisfaction was also suboptimal, with the highest recorded score at 69%, dropping to 64% in the first quarter of 2023. The persistent high "No Show" rates and lower patient satisfaction compromised operational efficiency, suggesting potential gaps in patient communication, engagement, and overall healthcare quality.

Aim

This project aims to transform patient communication and accessibility by integrating artificial intelligence with WhatsApp, offering instant responses to inquiries and comprehensive appointment reminders, including informative resources like videos and maps for enhanced visit preparation.



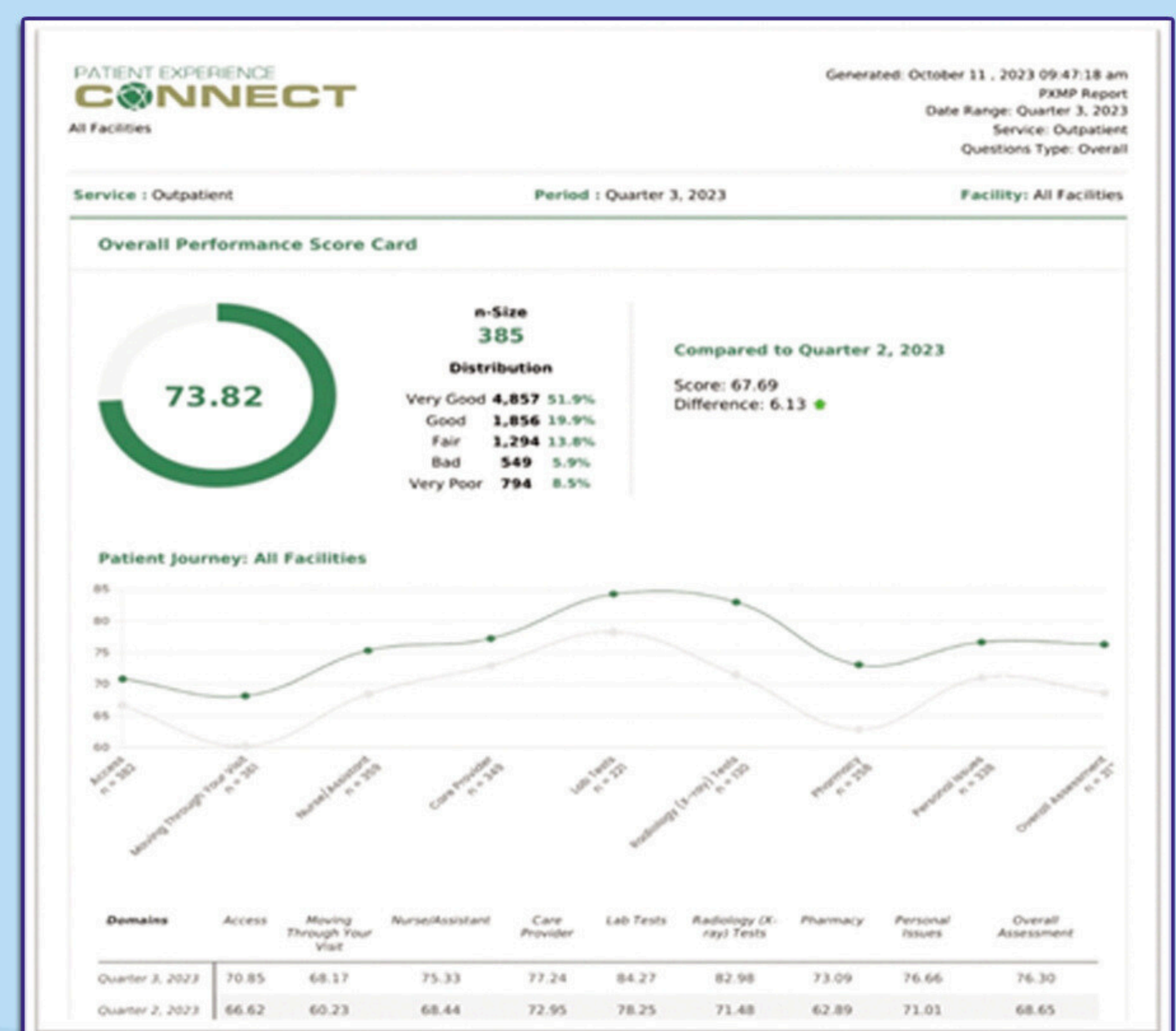
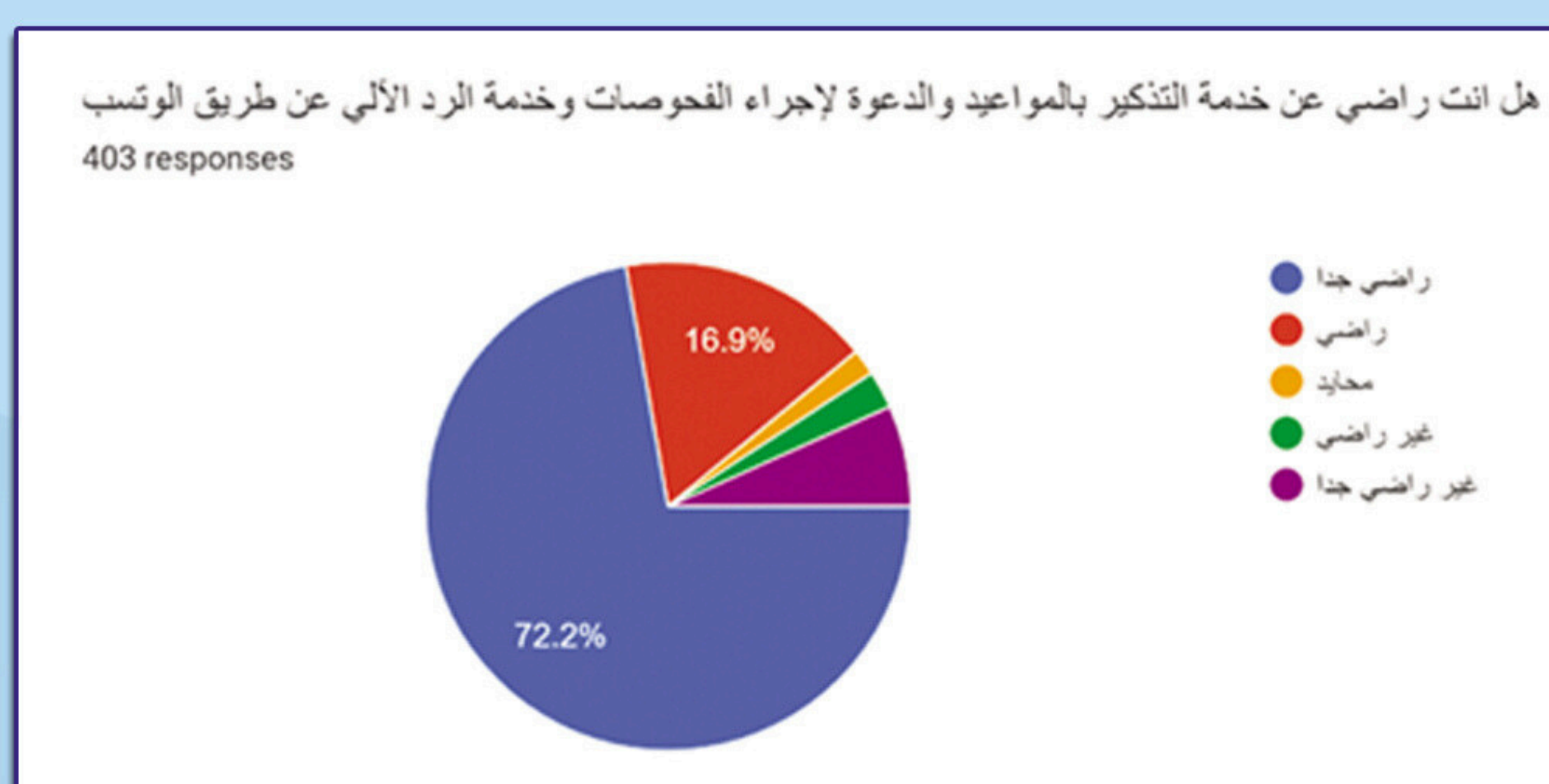
Methods and Interventions

To combat this, the hospital turned to technology, specifically the potential of artificial intelligence (AI) in healthcare. Key strategies included sending WhatsApp appointment reminders and providing clear instructions on what to expect during visits. Additionally, an AI-driven Chabot was integrated into the hospital's official WhatsApp, designed to give details on over 80 services at the clinic and provide round-the-clock support and information. Initially tested in the family medicine department, the interventions successfully expanded to all Outpatient Department (OPD) clinics. The goal was to decrease the "No Show" rate from 30% to 20% and raise patient satisfaction from 67% to 72% within three months.



Results

The AI integration produced significant improvements. By the third quarter of 2023, patient experience score was raised from 67.6% to 73.8%. The "No Show" rate also showed marked improvement, dropping from 30% in May 2023 to 19.8% by September 2023.



Conclusions

The success of Prince Sultan Military Hospital Clinics underscores the transformative role of AI in modernizing healthcare operations and patient experiences. Implementing AI strategically in appointment systems and patient services can drastically enhance patient experience, refine operational workflow, and reduce the impact of "No show" appointments. Future steps include incorporating AI into the broader hospital appointment system and official website and expanding the project nationally.