

## Project 11: Healthcare Appointment No-Show Prediction

### Patient No-Show Optimization Strategies

- **Targeted Intervention for Short-Notice Appointments:** As appointments scheduled with a very short lead time (0 or 1 day difference) have significantly higher no-show rates, implement immediate and reinforced confirmation or reminder protocols specifically for these appointments. This could involve an initial confirmation call or SMS right after booking, followed by a reminder closer to the appointment time, potentially using a more attention-grabbing method than a standard SMS.
- **Segmented Outreach for High-Risk Demographics and Neighbourhoods:** Given the high no-show counts among younger age groups and in specific neighbourhoods, tailor reminder strategies and potentially explore community-based interventions for these segments.
  - For younger patients, consider using communication channels or language that is more effective.
  - For high-no-show neighbourhoods, investigate underlying factors like transportation barriers, socioeconomic challenges, or access to information, and design localized support or reminder programs.
- **Enhance Reminder System with Multi-Channel and Risk-Based Approaches:** Moving beyond a single, generic SMS, implement a multi-channel reminder system that might also include email, automated calls, or mobile app notifications.
- **Optimize Scheduling Practices and Capacity Management:** Healthcare organizations could explore carefully managed overbooking for slots or patient segments with historically high no-show rates. Offering more flexible rescheduling options or using predictive insights to optimize appointment slot allocation could also help minimize the impact of missed appointments.