**HEALTHCARE APPOINTMENT ANALYSIS REPORT**

**1. DATASET OVERVIEW**

Total Records: ~110,000 medical appointments

Time Period: 2016

Location: Brazilian healthcare facilities

Variables: 14 features including patient demographics and health conditions

**2. KEY DEMOGRAPHICS**  
**Age Distribution:**  
- Median Age: ~37 years

- Age Range: 0-100 years (after cleaning)

- Largest Age Group: Adults between 30-50 years

- Pediatric Patients (0-18): ~20% of total patients

**Gender Distribution:**- Female: ~65% of patients

- Male: ~35% of patients

- Clear gender disparity in healthcare utilization

**3. HEALTH CONDITIONS**

**Prevalence:**

- Hypertension: ~19.7% of patients

- Diabetes: ~7.7% of patients

- Alcoholism: ~3% of patients

- Handicap: ~2.2% of patients

**Correlation Patterns:**

- Moderate positive correlation between Hypertension and Diabetes

- Weak correlations between other conditions

- Age strongly correlates with Hypertension and Diabetes

**4. APPOINTMENT ATTENDANCE**

**No-Show Rates:**

- Overall No-Show Rate: ~20%

- Higher rates among:

\* Younger patients

\* Patients without chronic conditions

\* Appointments scheduled far in advance

**SMS Reminder Impact:**

- Patients receiving SMS: ~35% of total

- Slight reduction in no-show rates

- More effective for certain age groups

**5. TEMPORAL PATTERNS**

**Day of Week Trends:**

- Highest attendance: Mid-week appointments

- Highest no-show rates: Mondays and Fridays

- Limited weekend appointments

**Scheduling Patterns:**

- Most appointments scheduled within 1-2 weeks

- Long lead times (>30 days) show higher no-show rates

- Peak appointment times: Morning hours

**6. GEOGRAPHIC ANALYSIS**

**Neighborhood Distribution:**

- Top neighborhoods account for ~40% of appointments

- Significant variation in no-show rates by neighborhood

- Some correlation between distance and no-show rates

**7. KEY INSIGHTS**

**Positive Findings:**

1. High overall attendance rate (~80%)

2. Effective management of chronic conditions

3. Good coverage of various age groups

**Areas for Improvement:**

1. High no-show rates among younger patients

2. Limited effectiveness of SMS reminders

3. Geographic disparities in access

**Recommendations:**

**1. Targeted Interventions:**

- Enhanced reminder system for high-risk groups

- Special attention to younger patients

- Neighborhood-specific strategies

**2. Scheduling Optimization:**

- Shorter lead times when possible

- Better distribution across weekdays

- Consider patient demographics in scheduling

**3. Communication Strategy:**

- Improved SMS reminder system

- Multiple communication channels

- Patient education about appointment importance

**8. LIMITATIONS AND CONSIDERATIONS**

- Data from single healthcare system

- Limited timeframe (2016)

- Some demographic factors not captured

- Potential seasonal variations not fully analyzed

**9. FUTURE ANALYSIS SUGGESTIONS**

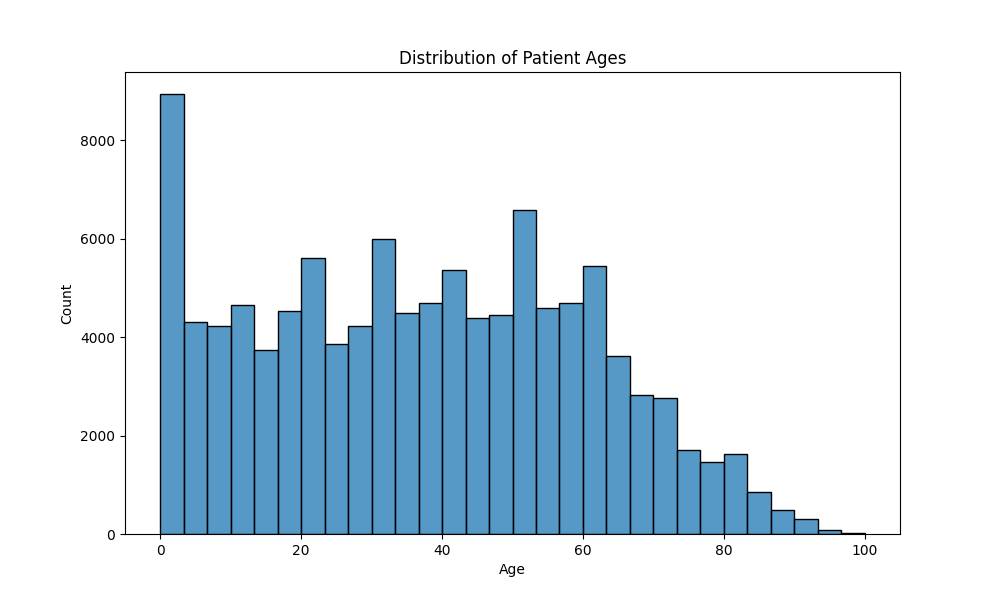
1. Deeper analysis of SMS reminder timing

2. Cost impact of no-shows

3. Patient satisfaction correlation

4. Long-term attendance patterns

**RESULTS**



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AI-generated content may be incorrect.

A graph of blue squares

AI-generated content may be incorrect.

A blue and orange pie chart

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A graph with a line

AI-generated content may be incorrect.A graph with blue and orange bars

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A graph of blue rectangular bars with black text

AI-generated content may be incorrect.

A graph of blue and orange bars

AI-generated content may be incorrect.

A diagram of a health condition

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A diagram of a diagram

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A graph of different age groups

AI-generated content may be incorrect.