Recommendation Report

1. Statistical Design

The evaluation employed a two-sample comparison design to assess the impact of the bipartisan consent feature on patient experience and trust.

Study Design

• **Sample Groups:** New Feature Group (n=40) and Control Group/Original App (n=180)

• **Data Collection Period:** Original app data collected June-November 2024; New feature data collected October-November 2024

• **Repeated Measures:** 10 patients experienced both versions (follow-up visits), enabling paired comparisons

• **Key Metrics:** Overall satisfaction, privacy trust, comfort providing consent, and willingness to use again (all measured on 5-point Likert scales)

Inferential Methods

The primary analytical approach utilized independent samples t-tests to compare mean satisfaction scores between the two groups. This parametric test was selected due to the continuous nature of the Likert scale responses and sufficient sample sizes (n>30) invoking the Central Limit Theorem. The test assumptions were validated: (1) independence of observations between groups, (2) approximate normality of distributions via visual inspection, and (3) homogeneity of variance assessed through Levene's test.

Statistical significance was evaluated at $\alpha = 0.05$ level. Effect sizes were quantified using Cohen's d to assess practical significance beyond statistical significance. Secondary analyses included paired t-tests for the 10 repeat patients and chi-square tests for categorical outcomes (willingness to use again, expressed concerns).

Primary Statistical Results

Metric	New Feature	Original App	t-statistic	p-value
Overall Satisfaction (Mean ± SD)	4.40 ± 0.78	2.92 ± 0.69	11.98	<0.0001
Privacy Trust (Mean)	4.50	2.85	16.52	<0.0001
Comfort Level (Mean)	4.48	2.88	16.06	<0.0001

All primary outcomes demonstrated statistically significant improvements ($p < 0.001$) favoring the bipartisan consent feature. The effect size for overall satisfaction (Cohen's $d = 2.09$) indicates a large practical effect, suggesting meaningful improvement in patient experience beyond statistical significance alone.

Statistical Summary

- **New Feature Overall Satisfaction:** 4.40 ± 0.78
- **Original App Overall Satisfaction:** 2.92 ± 0.69
- **t-statistic:** 11.98
- **p-value:** < 0.0001
- **Cohen's d (Effect Size):** 2.09 (Large effect)
- **Levene's Test Statistic:** 1.42
- **Levene's Test p-value:** 0.2353
- **Willingness to Use Again:** 82.5%
- **Original App Concerns Expressed:** 42.0%

2. Recommendation

Based on comprehensive statistical analysis and practical considerations, it is **strongly recommended to implement the bipartisan consent feature as the standard intervention for all future patient visits**.

Key Findings Supporting Implementation

1. Significantly Enhanced Patient Trust and Satisfaction: The new feature yielded a 50.7% improvement in overall satisfaction scores (from 2.92 to 4.40 on a 5-point scale). This improvement is both statistically significant ($p < 0.001$) and practically meaningful (Cohen's $d = 2.09$, indicating a large effect).

2. Substantial Improvement in Privacy Trust: Privacy trust scores increased by 57.9% (from 2.85 to 4.50), addressing a critical concern in healthcare technology adoption. With the original app, 42.0% of patients expressed privacy or control concerns, compared to minimal concerns with the new feature.

3. High User Acceptance and Retention: 82.5% of patients indicated willingness to use the new feature again, demonstrating strong acceptance. Among the 10 repeat patients who experienced both versions, satisfaction scores averaged 4.40 with the new feature, indicating positive reception among those with direct comparison experience.

4. Minimal Implementation Barriers: Feedback analysis revealed few technical challenges, with most patients (>85%) rating app onboarding ease and accessibility as good to excellent (4-5 on 5-point scale). The challenges reported were minor (UI glitches, small text) and easily addressable through iterative refinement.