# Vaccine Hesitancy—Alaska

**Phase 1: Planning and Preparation (1/21 to 1/23)**

1. **Finalize Objectives**
   * Refine research questions to focus on the integration of interview data and social media analysis.
   * Clearly outline the hypotheses you aim to test.
2. **Set Up Tools**
   * Install or prepare NLP libraries (e.g., Hugging Face, NLTK) for sentiment and thematic analysis.
   * Configure qualitative analysis tools (e.g., NVivo or MAXQDA) for coding interview data.
   * Ensure APIs and scraping tools (e.g., Tweepy) are ready for social media data collection.
3. **Data Organization**
   * Consolidate all interview Word files in a structured folder for analysis.
   * Create a coding framework for thematic analysis of interviews.

**Phase 2: Data Analysis of Interviews (1/24 to 1/29)**

1. **Thematic Coding**
   * Import interview transcripts into qualitative analysis software.
   * Code the data based on pre-defined themes (e.g., misinformation, barriers, motivators, trust).
2. **Insights and Patterns**
   * Summarize recurring narratives and sentiments across the interviews.
   * Extract participant quotes to support key findings.

**Phase 3: Social Media Data Collection and Analysis (1/30 to 2/12)**

**A. Data Collection (1/30 to 2/2)**

1. **Scrape Social Media Data**
   * Collect vaccine-related posts and comments using APIs (e.g., Tweepy for Twitter).
   * Filter data for posts related to Alaska during the COVID-19 era.
2. **Data Cleaning**
   * Remove irrelevant or duplicate entries.
   * Ensure data is tagged geographically (e.g., rural vs. urban).

**B. Sentiment and Thematic Analysis (2/3 to 2/11)**

1. **Sentiment Analysis**
   * Use pre-trained sentiment models to classify posts as positive, negative, or neutral.
   * Generate sentiment heatmaps for rural and urban Alaska.
2. **Thematic Analysis**
   * Apply topic modeling (e.g., LDA) to identify prevalent themes and misinformation patterns.
   * Correlate themes with interview findings.
3. **Engagement Metrics**
   * Analyze social media engagement metrics (likes, shares) to understand the spread of narratives.

**Phase 4: Integration and Correlation Analysis (2/12 to 2/16)**

1. **Combine Findings**
   * Compare social media themes and sentiments with interview insights.
   * Identify alignments and discrepancies between online and offline vaccine hesitancy drivers.
2. **Quantify Correlations**
   * Use statistical methods to explore relationships between social media narratives and interview data.
   * Highlight unique regional trends (e.g., rural barriers vs. urban misinformation).

**Phase 5: Writing and Dissemination (2/17 to 3/2)**

1. **Draft Research Paper (2/17 to 2/23)**
   * **Introduction:** Set the stage for the study, including its relevance and objectives.
   * **Methods:** Detail the approach for analyzing interviews and social media data.
   * **Results:** Present findings with thematic visualizations and geographic insights.
   * **Discussion:** Interpret the results, focusing on practical implications and solutions.
   * **Conclusion:** Summarize contributions and propose areas for future research.
2. **Review and Revise (2/24 to 2/28)**
   * Share the draft with peers or advisors for feedback.
   * Refine the manuscript based on comments.
3. **Submit for Publication (3/1 and 3/2)**
   * Identify and format the paper for a target journal or conference.
   * Submit and plan for potential revisions.