Our literature review process consists of four steps:

1. **Search and Collection**: Use specific keywords and inclusion/exclusion criteria to search for and collect all relevant papers that meet our criteria.
2. **Data Extraction**: Upload the collected papers to ChatGPT to extract information on publication year, journal, methodology, policy implications, and relevant results. Use Python code to compile these results and export them into an Excel file.
3. **Verification**: Manually verify that the summarized results from ChatGPT accurately reflect the original papers.
4. **Executive Summaries**: Identify high-frequency policy implications to create executive-level summaries for all strategies.

Step 1: Search

We develop the opioid abatement strategy summaries through a systematic search process using the PubMed library database.

We use specific keywords for each strategy related to the opioid topic:

- **Evidence-Based Addiction Treatment**: Keywords include methadone, buprenorphine, contingency management, cognitive behavioral therapy, family therapy, adoption, and dissemination.
- **Recovery Support**: Keywords include drug-free housing, peer support, and self-help.
- **Post-Overdose Response**: Keywords include post overdose, outreach, and EMS.
- **Criminal Justice Diversion Programs**: Keywords include jail, prison, incarcerated, detention, and court referral.
- **Naloxone Distribution**: Keywords include availability, prescription, effectiveness, and access, combined with naloxone.

We apply several inclusion and exclusion criteria for the search:

Inclusion Criteria:

- Must be opioid-related.
- Must be one of the following types: Systematic reviews, Meta-analyses, Survey-based studies, Data analyses, Clinical trials, Randomized trials, or Articles with data.
- Must include at least one of the abatement strategies mentioned above.
- Must address at least one of the following:
    - Effectiveness of a treatment
    - Examination of a policy implementation
    - Cost-benefit analysis
- Can be either quantitative or qualitative studies.
- Must be published after 1990.

Exclusion Criteria:

- Not opioid-related (e.g., alcohol, other drugs, smoking).
- Not medical or chemically specific.
- News articles or general articles without data.
- Do not include at least one of the abatement strategies we are researching.
- Published before 1990.

Step 2: AI-Generated Summary

We utilize the AI engine ChatGPT to automate the summarization process. The steps are as follows:

1. **Instruction**: We instruct ChatGPT on how to generate the desired results, which include publication year, journal, methodology, policy implications, and relevant results.
2. **Code Formation**: ChatGPT generates Python code to compile these results, which can be exported as Excel sheets.
3. **Data Upload**: We upload all the papers that satisfy the inclusion/exclusion criteria to the ChatGPT interface.
4. **Code Execution**: We obtain the corresponding Python code for the collected papers.
5. **Output**: We run the code to generate and output the Excel sheets.

Step 3: Verification

After generating the summaries, we manually review the output to ensure accuracy. This involves comparing the AI-generated summaries with the original papers to verify that key details such as publication year, journal, methodology, policy implications, and relevant results are correctly captured. This step is crucial to maintain the integrity and reliability of our research data.

Step 4: Executive Summaries

From the verified summaries, we identify high-frequency policy implications and key findings. These insights are then synthesized to create executive-level summaries. These summaries provide a concise overview of the strategies and their effectiveness, offering valuable insights for stakeholders and decision-makers involved in opioid abatement efforts.