

## INTRODUCTION

- Melatonin is a popular **over-the-counter** sleep medication
- The Indiana Poison Center received **5,896** calls regarding melatonin ingestions (2015–2021)

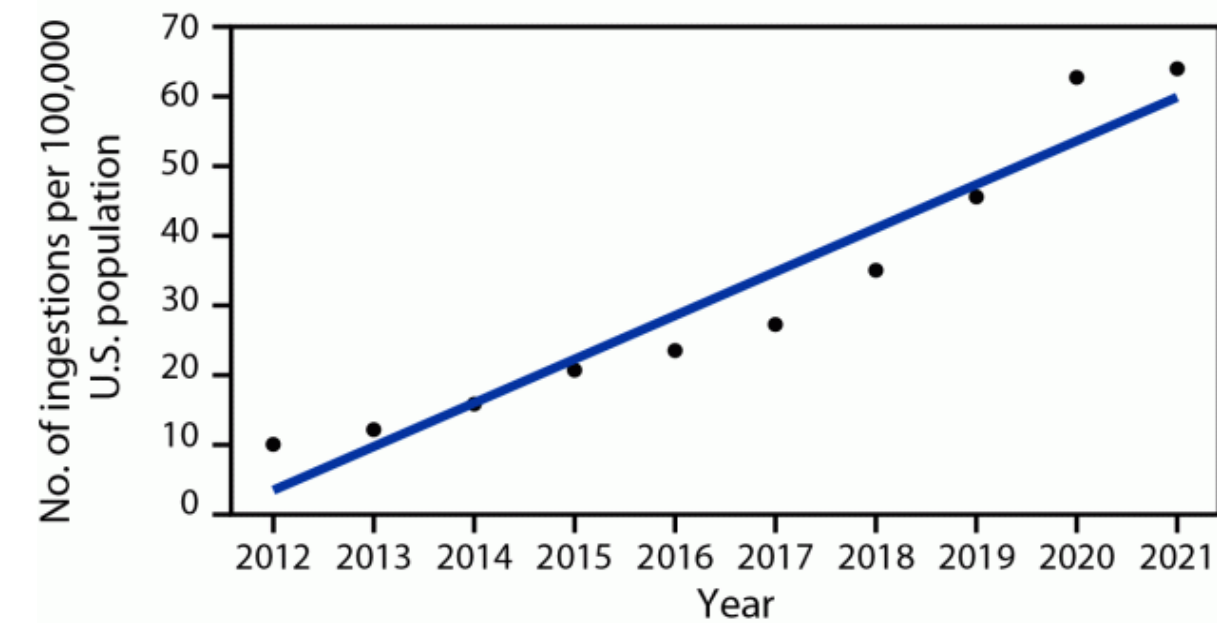


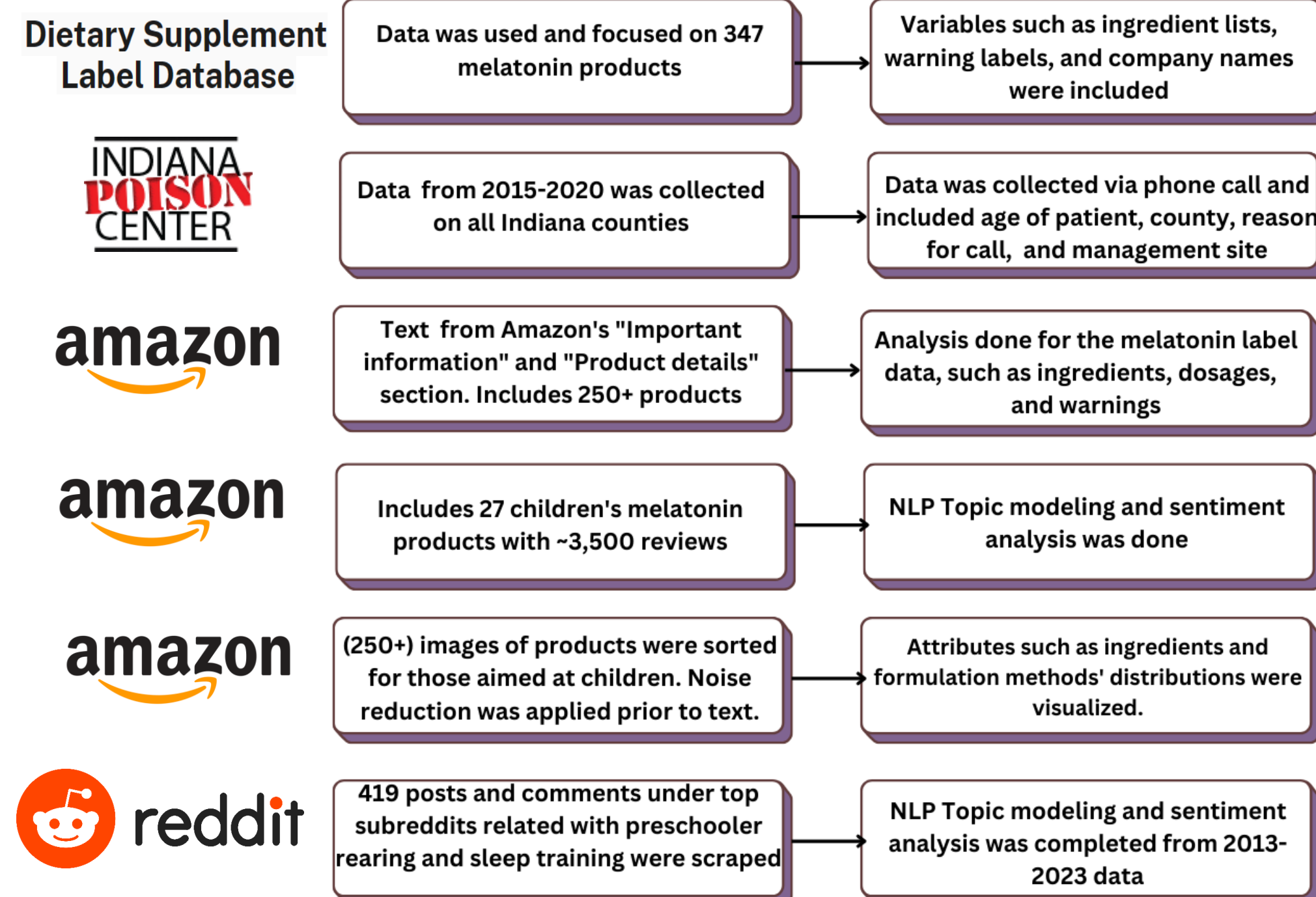
Fig. 1. 2012-2021: Melatonin consumption increased over 500% (CDC, 2022)

- Across the US, 5 children required mechanical ventilation and 2 died (2012-2021)
- Project Objective:** To conduct surveillance on on-market pediatric melatonin products, associated public perspectives and reported ingestion cases

## METHODOLOGY

### Data Collection

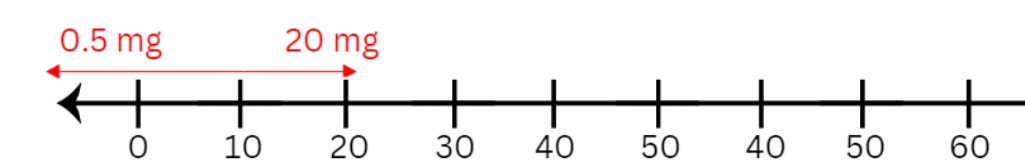
### Analysis



## RESULTS/FINDINGS

### NIH Data

- Most common formulation: tablets
- Top ingredient, other than melatonin: stearic acid  
Combining ingredients, such as serotonin, can bring serious side effects
- 82% of labels included the term "before bedtime"
- 40% stated to consult with a physician prior to use
- 10.5% included a specific usage length
- Dosage ranged from 0.5mg to 20mg



### Poison Center Data

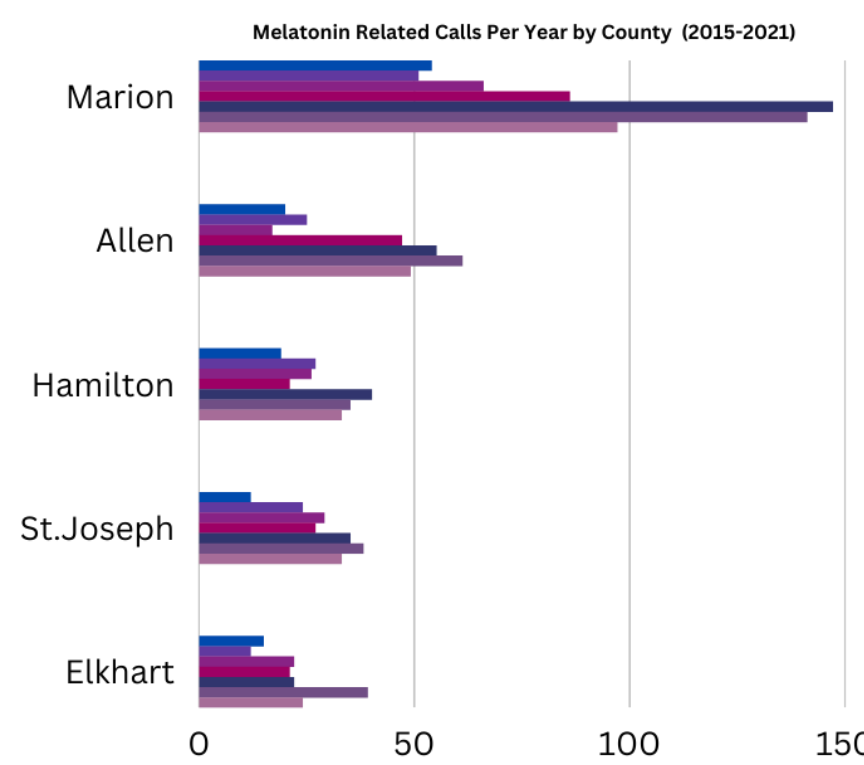


Fig. 2. Peak melatonin calls occurred during 2019-2020

### Most Common Clinical Effects

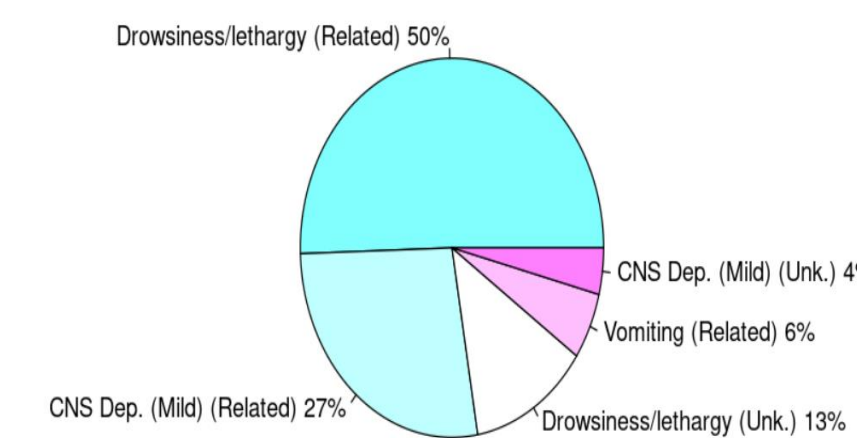


Fig. 3. Most Common Clinical Effects : drowsiness

- Male was the gender with the most ingestions
- 2 and 3 year olds had the most ingestions

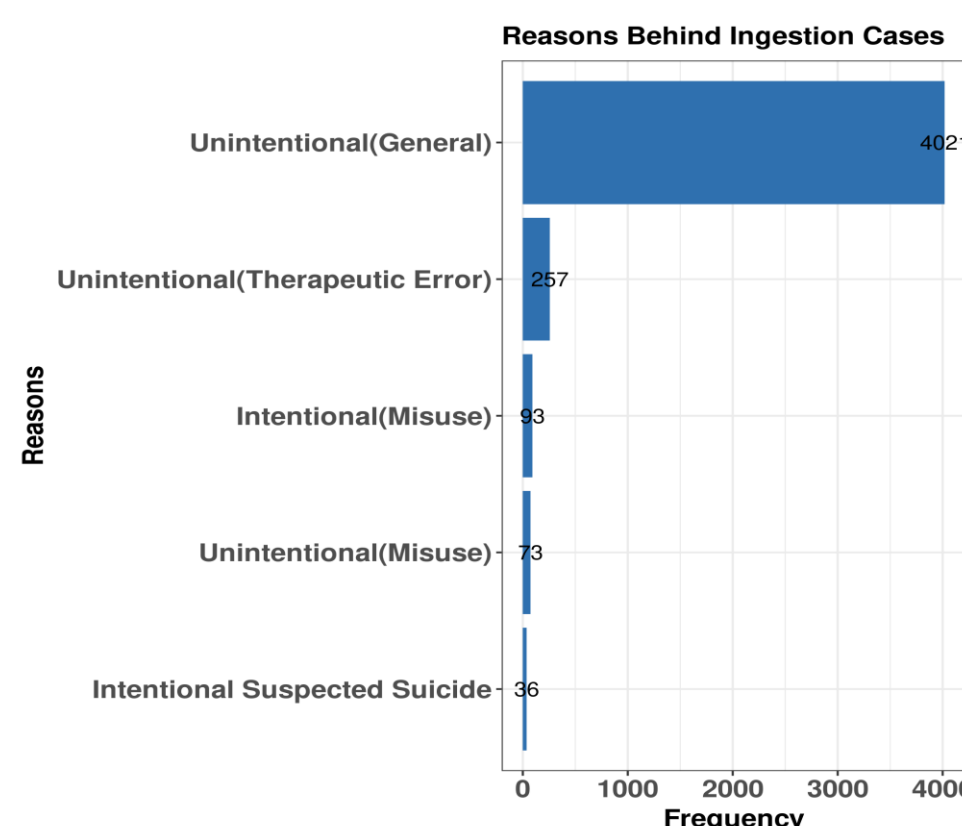


Fig. 4. Top case reasoning: unintentional (general)

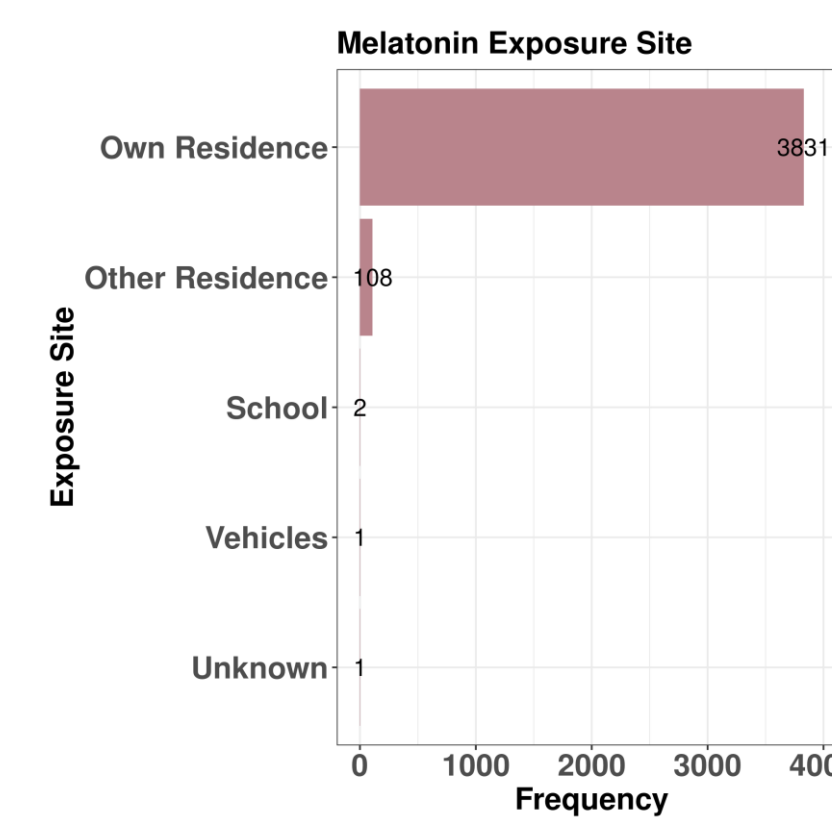
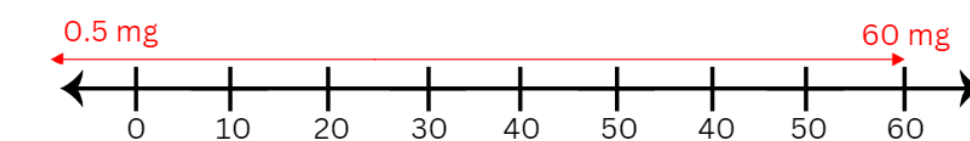


Fig. 5. Top exposure site: own residence

## RESULTS/FINDINGS

### Amazon Text and Images

- Most common formulation: tablets
- Top ingredient, other than melatonin: cellulose
- Over 30% of products had no warning label
- Dosage ranged from 0.5 mg to 60 mg



### Amazon Reviews

- Commonly reported side-effects are nightmares, headache, stomachache, sickness, hallucination, fear of sleeping, heart race/burn, dizziness
- Of 27 products, there was most concern with:
  - Side effects of Zarbee's 1 mg melatonin gummy
  - Ingredients of Luna's vegan tablet sleep supplement

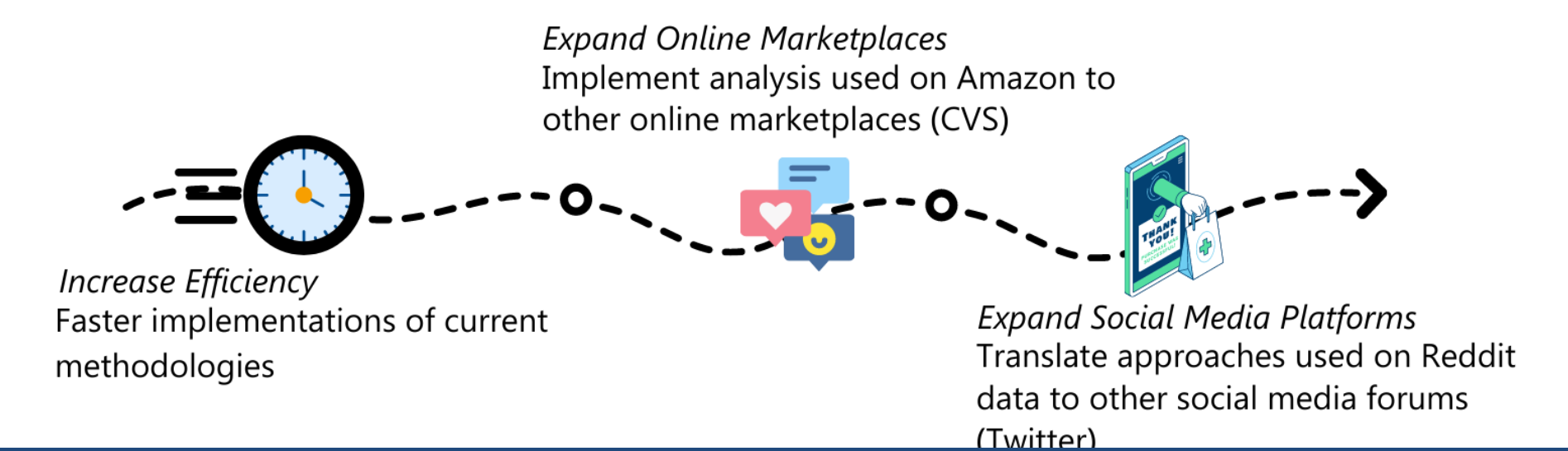
### Reddit

- Caregivers on Reddit:
  - Most commonly discussed child sleep behaviors
  - Suggested melatonin as a potential solution
  - Did not report side-effects of melatonin use

## CONCLUSION

- Suggestion for **FDA regulation** of melatonin
- FDA regulations may reduce annual pediatric overdoses in Indiana
- Increase overall awareness of potential risks of melatonin use for children

## FUTURE DIRECTIONS



## REFERENCES

Please visit our QR code for references:



## ACKNOWLEDGEMENTS

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