

# Conclusion

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# Additional Methods

There are new methods for quasi-experiments coming out frequently! The staggered adoption setting, non-binary treatments, and inferential approaches are especially hot research areas.

Other quasi-experimental methods include:

- Interrupted time series
- Instrumental variables
- Regression discontinuity

# How to Approach an Analysis

1. Plot treatment status over time
2. Carefully consider similarity of units (levels, trends, known & unknown covariates)
3. Carefully consider heterogeneities of effect that are possible
4. Determine desired estimand
5. Conduct simplest analyses (TWFE, dynamic TWFE) and plot pre- and post-trends
6. Conduct more complex analyses as needed

# Uses and Advantages in Epidemiology

- Can use routine data
- Fewer covariates required
- Evaluate population-level impacts
- Clear interpretations/different set of assumptions

# Challenges/Limitations in Epidemiology

- ATT is not usually target
- Limited generalizability
- Still require untested assumptions
- Limited inferential methods
- Limited research on integrating with other study designs

# Research Needed

- Which epi settings are conducive to these methods? Which are not?
- How do we translate the statistical/causal assumptions into meaningful subject-matter questions?
- Which of these advanced methods are most useful in epi? How should they be selected in principled ways?

# Additional Info

All materials: <https://github.com/leekshaffer/Epi-QEs/>

References list in main folder

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