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Classification of Suicide and Methods to Address Sources of Bias

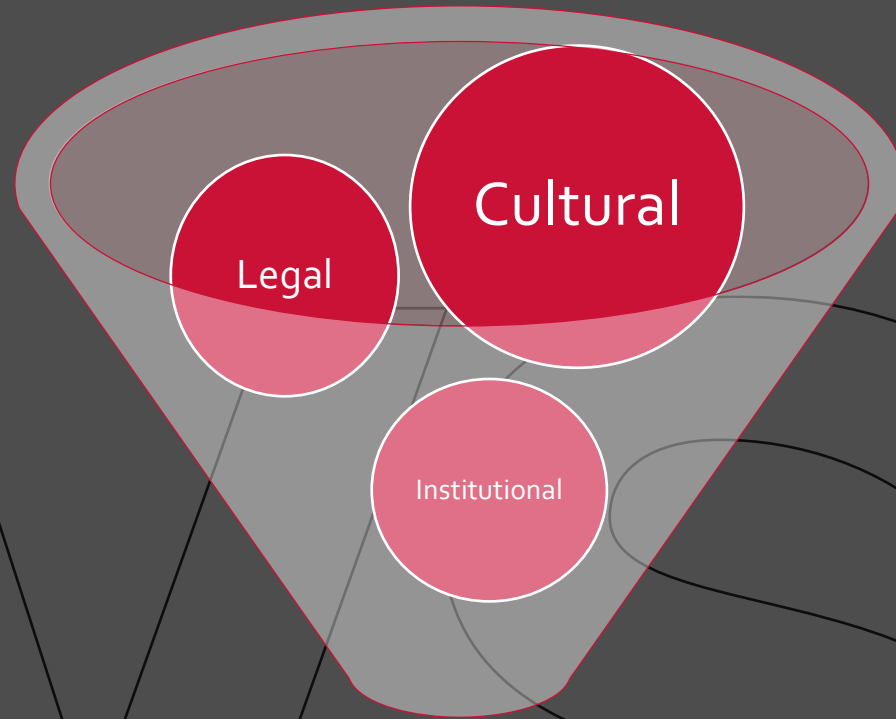
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Sources of Bias

Mortality statistics are the aggregation of individual decisions...



Individual

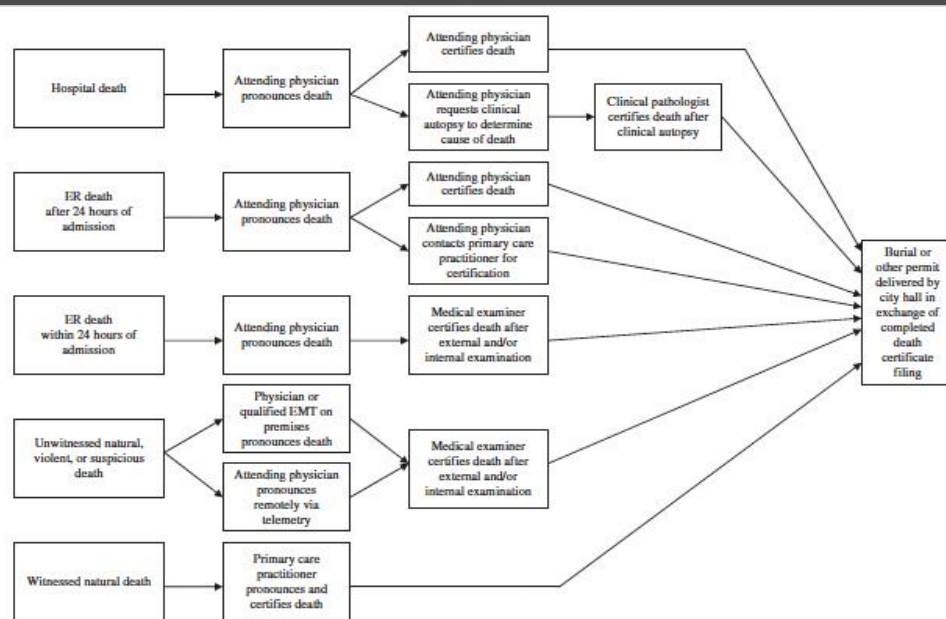


Figure 1: Schematic overview of potential typical death case scenarios and their certification processes in the U.S. study site.

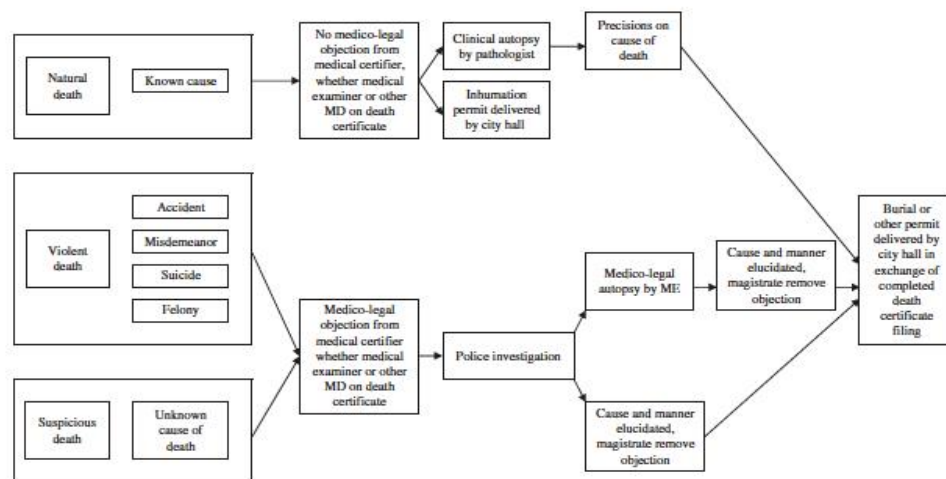


Figure 2: Schematic overview of potential typical death case scenarios and their certification processes in France, based on Paysant (1998).

Cultural Level

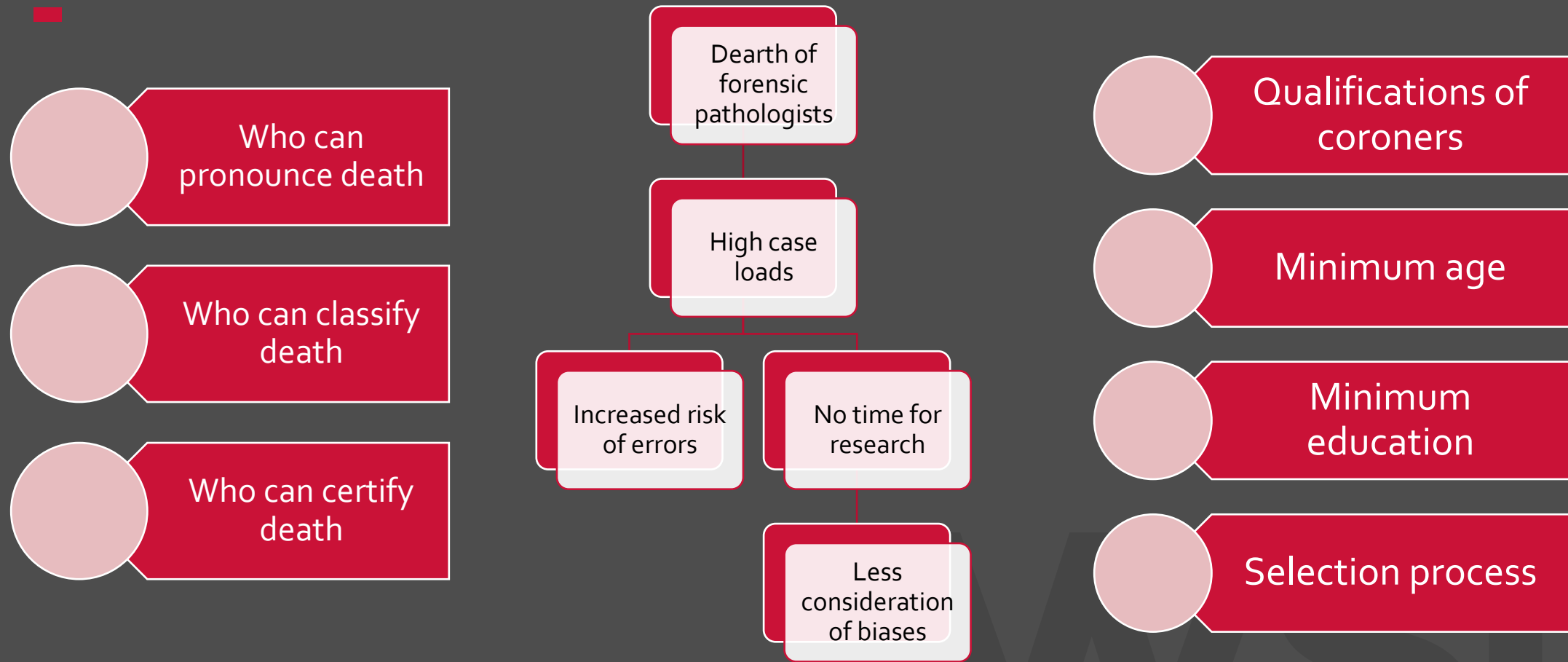
Examples of differences in death certification processes

Illustrative impact: French system processes more homicides and suicides

Hsieh & Neuilly (2019); DOI: 10.1177/0886260516647006

Legal and Institutional Levels

Pinch points in U.S. death certification system



Ruiz, Posey, Neuilly, Stohr, Hemmens (2018); DOI: 10.1111/1556-4029.13689

Neuilly (2022); DOI: 10.1111/1556-4029.15080

Ruiz, Posey, Neuilly, Stohr, Hemmens (2018); DOI: 10.1111/1556-4029.13689

Individual Level

General and expert population biases

General Populations

- Impact of decedent characteristics
 - Age, race, sex, social class matter
- Impact of case characteristics
 - Substance use, mental health, and conflict context clues matter
- Impact of “certifier” characteristics:
 - Gender, political leaning, religion, and race may matter

Neuilly & Willits, in development

Expert Populations

- Impact of forensic pathologist gender on manner of death classification
 - Male certifiers more likely to classify as homicides than suicides or accidents compared to female certifiers

Hsieh & Neuilly (2019); DOI: 10.1177/0886260516647006

Solutions



- Streamlining systems and trainings
- Building redundancies and checks and balances (Posey & Neuilly, in development)
 - Mortality review teams
 - Psychological autopsies
- AI – threat or promise?
 - De-biasing the training algorithm

WSU

References

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