Pilot Tests: How we generated the network

Recruited:
 62 youth for HEALER; 54 for degree centrality (non-AI)
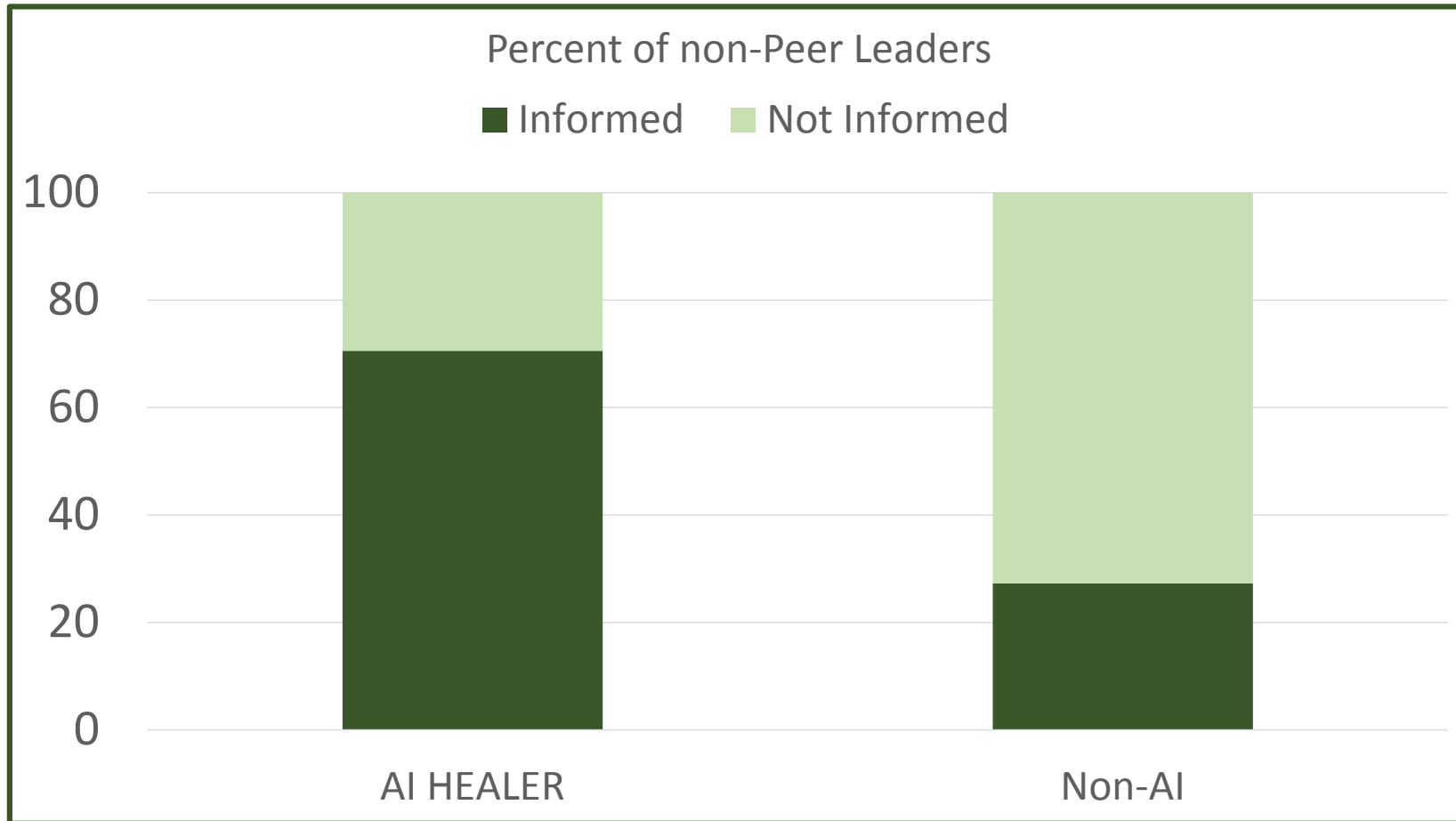
Preliminary network —> HEALER

Bring in 4 youth for training, get more tie data —> HEALER

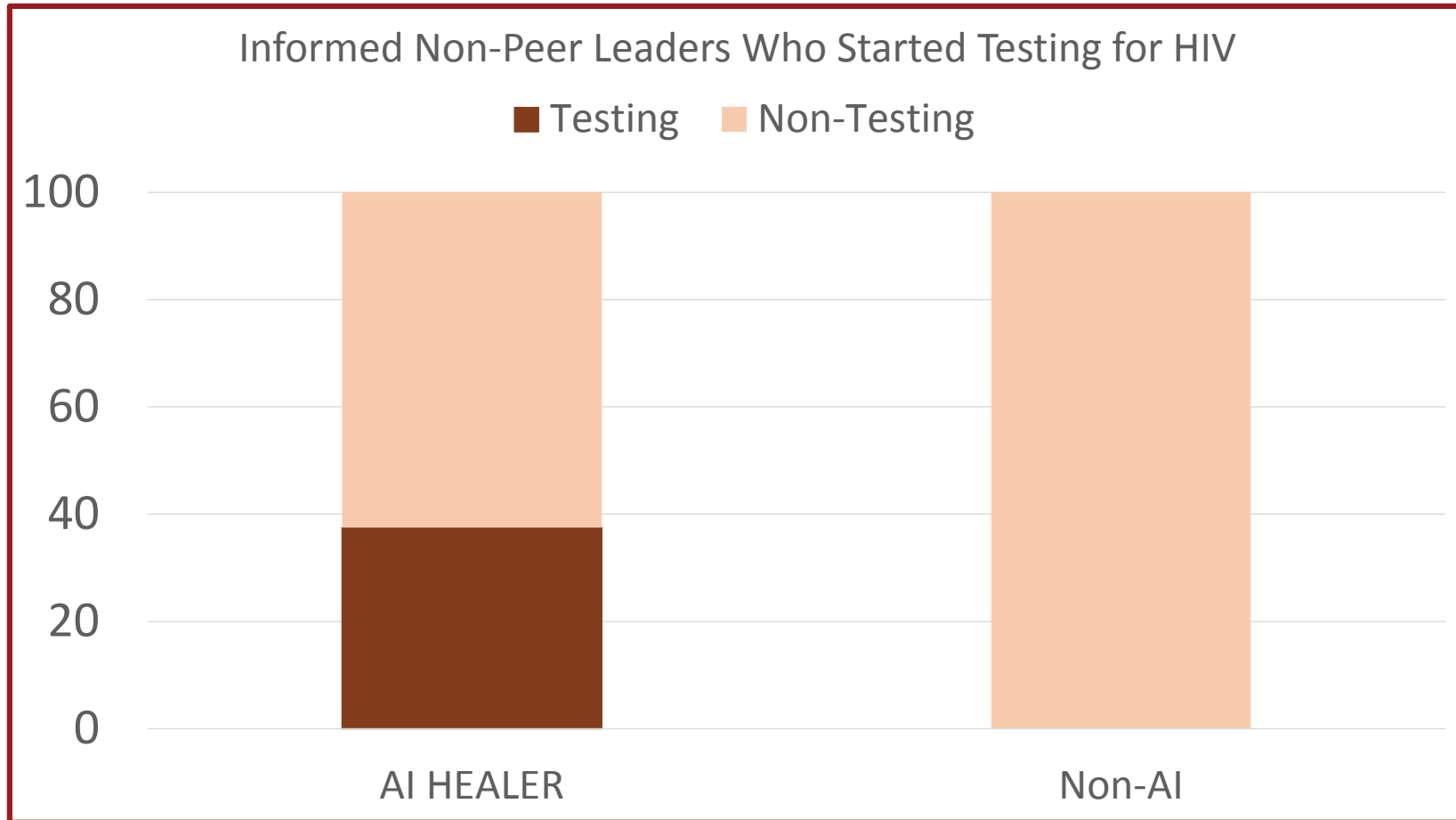Bring in 4 youth for training, get more tie data —> HEALER

Bring in 4 youth for training

Results: Pilot Studies

Percent of non-Peer Leaders

■ Informed ■ Not Informed

Results: Pilot Studies

Informed Non-Peer Leaders Who Started Testing for HIV

Other Applications in Urban Settings
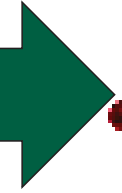
- At CAIS:

  - *Substance abuse/addiction and intervention among homeless youth*
  - *Gang violence in Los Angeles*

- From the AI100 report:

  - *Machine learning for preventing lead poisoning in children*
    - Predictive models to prioritize houses for lead paint inspection
  - *Scheduling and planning to redistribute excess food to food banks*

Outline

- Introduction

- HIV Information among homeless youth

- Wildlife Conservation

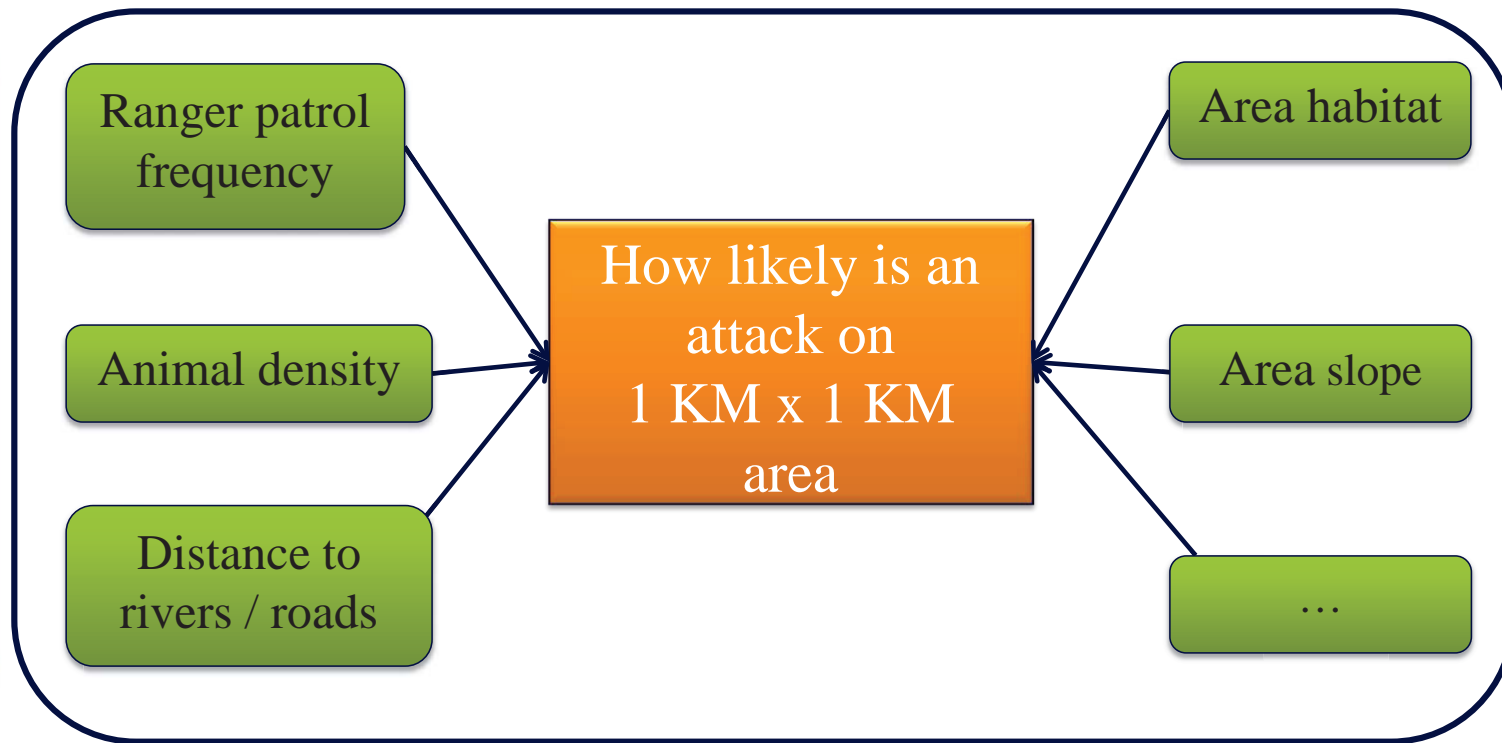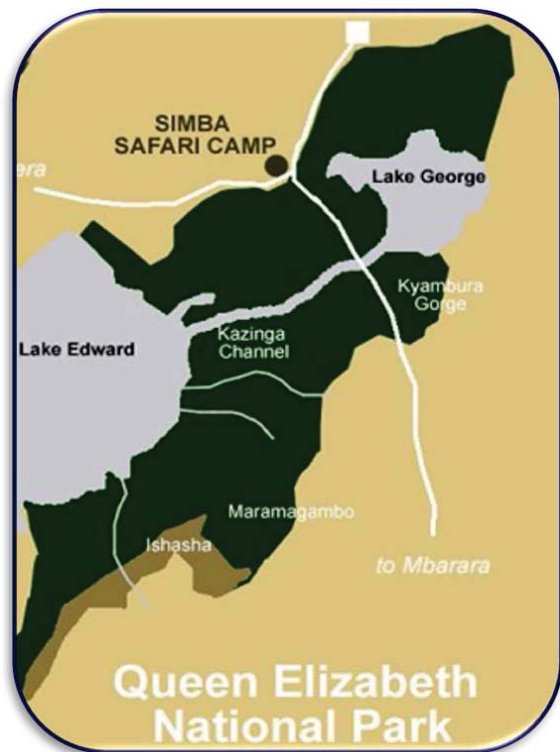# PAWS: Poacher Behavior Prediction + Generate Patrols

Murchison Falls National Park, Uganda
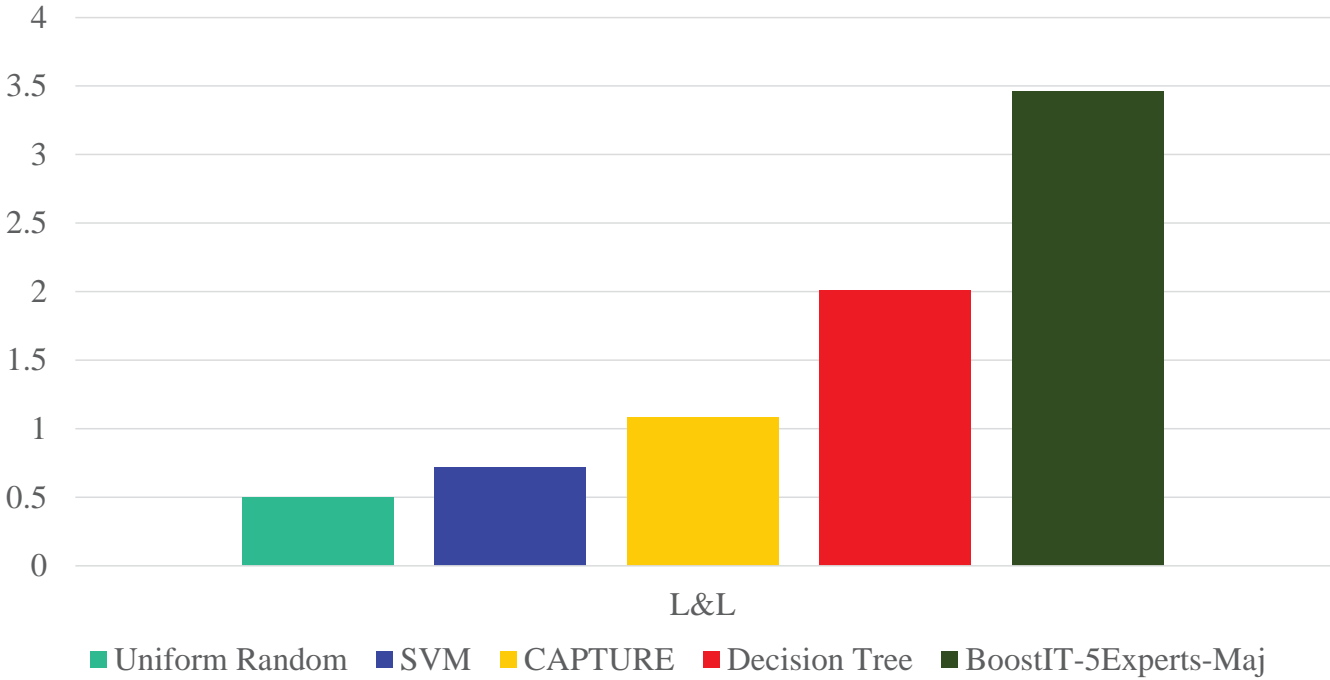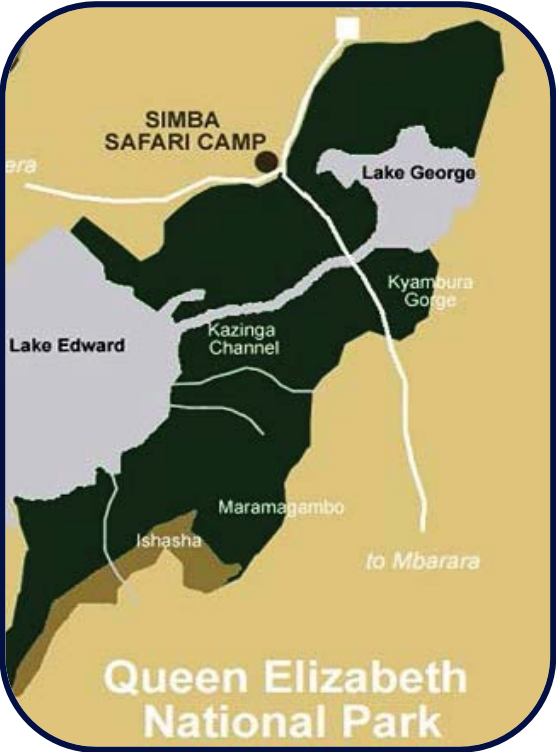
POACHER BEHAVIOR PREDICTION

Queen Elizabeth National Park, Uganda

12 years of patrols

POACHER BEHAVIOR PREDICTION

Results from 2015

Real-world Deployment: Results

- Two 3 sq km patrol areas: Predicted hot spots with infrequent patrols

- Trespassing: 19 signs of litter etc

- *Snaring: 1 active snare*

- *Poached Animals: Poached elephant*

- *Snaring: 1 elephant snare roll*

- *Snaring: 10 Antelope snares*

- Hit rates (per month)

Historical Base Hit Rate	Our Hit Rate
Average: 0.73	3

➡ *Ours outperforms 91% of months*

Towards the Future

- Significant potential: AI for low resource communities, emerging markets

  - *Direction of AI research in our hands*

- Novel research challenges:

  - *Fundamental challenges from use-inspired research, e.g., POMDPs*
  - *Also: Interpretability of AI techniques,*

- Designing AI systems in Society:

  - *Belmont report principles: Respect for persons, Beneficence, Justice*

- Methodological challenges:

  - *Encourage interdisciplinary research: measures impact in society*

THANK YOU

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http://teamcore.usc.edu/security

AI FOR SOCIAL GOOD