Honors College Undergraduate Research Showcase

February 2, 2026

Oregon State University

The Situation Table

A model for change in the community

https://o2sl.com/o2sl-qrt-national-delivers-situation-table-training-for-boyd-county-community-partners/

By Kip Franich

What is a Situation Table?

Source: http://taylornewberry.ca/addressing-risk-through-system-collaboration-evaluation-of-the-connectivity-situation-tables-in-waterloo-region/

https://secondopinionqb.ca/secret-situation-tables-monitor-b-c-citizens-to-plan-interventions-by-police-social-workers-healthcare-providers-school-administrators/

Ontario

According to Operation 2 Save Lives

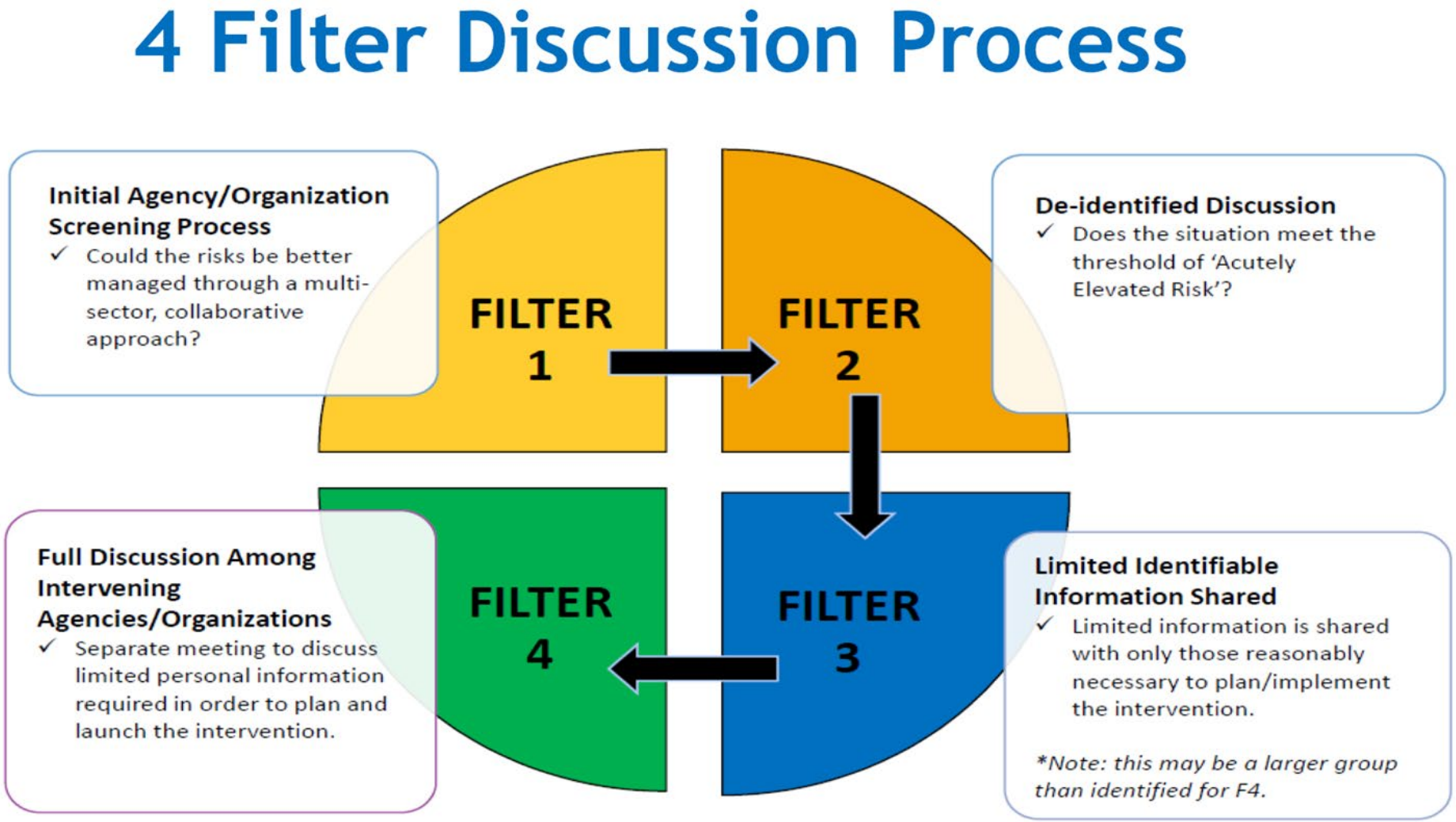
- A unique, risk-based, rapid triage model
- Experience and evidence-based
- Brings together multiple human service providers
- Individuals and/or families face a specific threshold of Acutely Elevated Risk (AER)
- Face the highest levels of composite risk in the community and too often fall through the cracks in the system.

What is AER?

- A situation negatively affecting the health or safety of an individual, family, group or place
- High probability of imminent and significant harm to self or others
- Risk factors contributing cut across multiple human service disciplines

https://www.publichealthgreybruce.on.ca/Portals/0/Topics/HealthyHousing/STAR%20infographic%20March%202024.pdf

How it Works



https://pub-oxfordcounty.escribemeetings.com/filestream.ashx?DocumentId=10254

Saskatchewan takes Notice

- **2007** crime 75% than rest of Canada
- **1999-2008** arrests increased by 128%
- Stats showed law enforcement alone couldn't deal with situation
- Implemented and modified Glasgow's model
- Success
- Spread through Canada

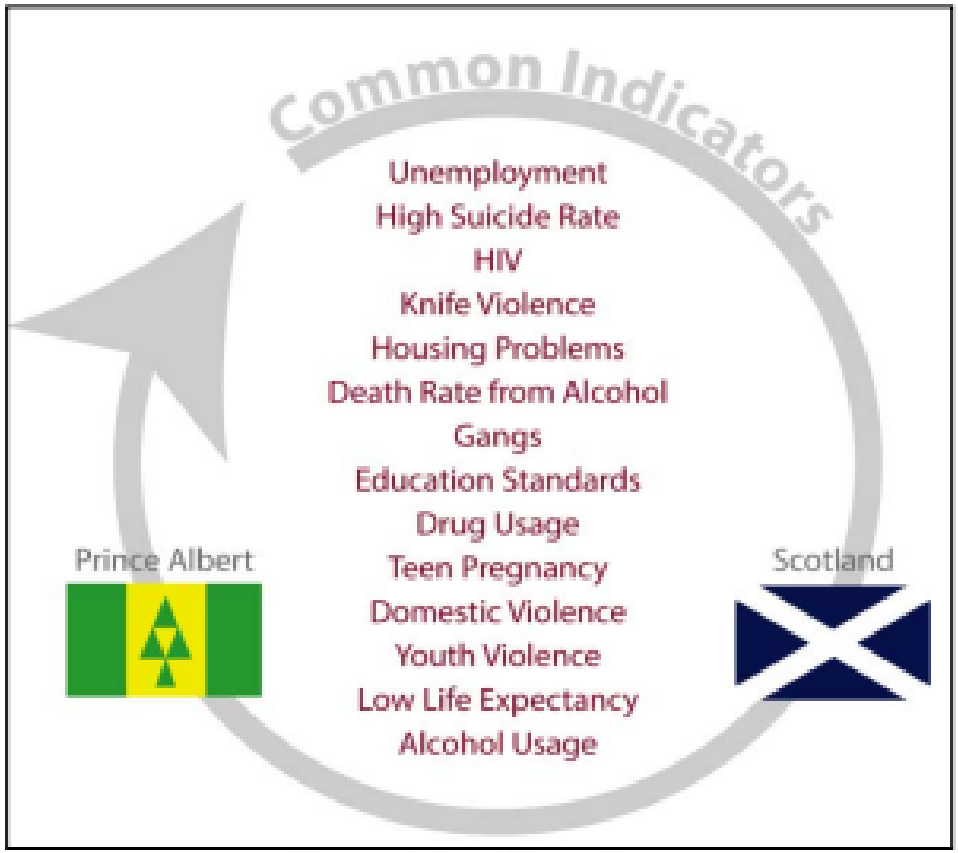


Figure 1: Prince Albert - Glasgow
14 Common Indicators (Glasgow, 2010)

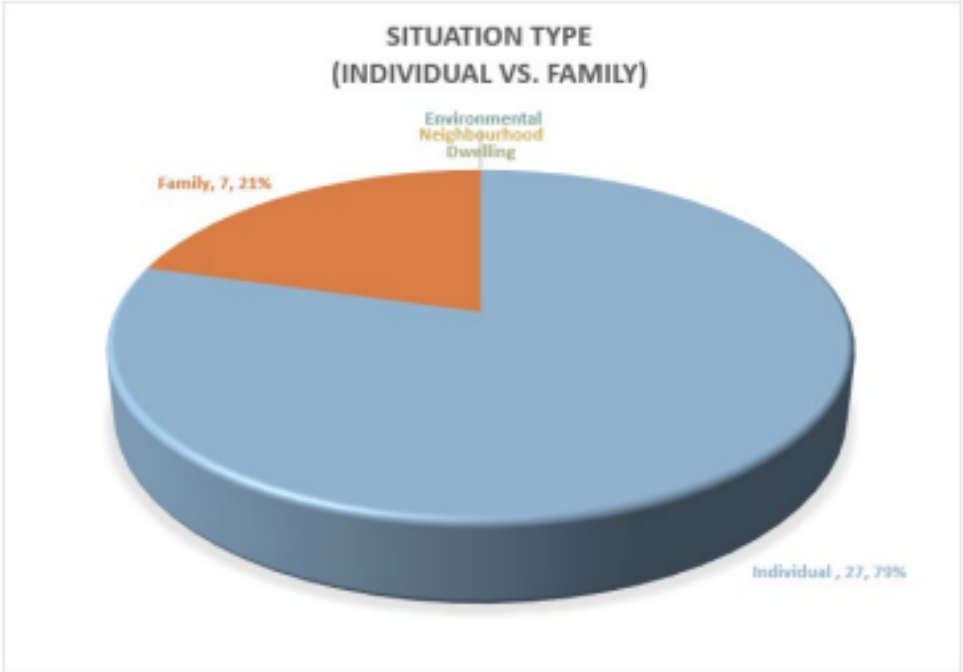
(McFee & Taylor, 2014)

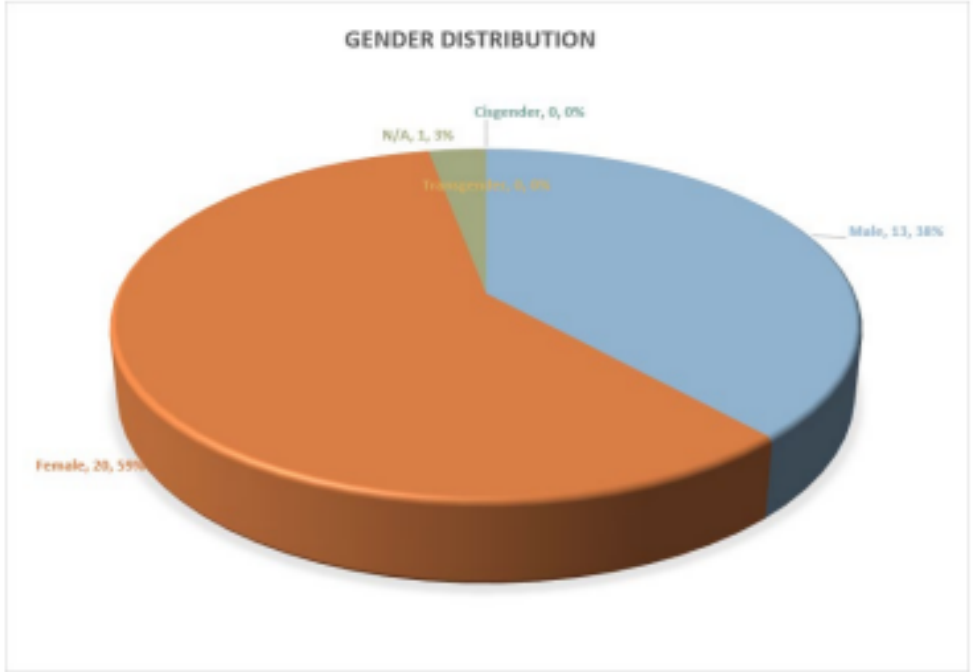
Who Has it helped?

How have the first six months gone?

Total # of Situations
33

Number of People Supported
48





(Corvallis Police Department)

Conclusions

- Does good, but has limitations
- No follow ups
    - Only have to connect to services
    - Some success stories are heard
- Difficult to share information between organizations
- A great networking tool for social workers
- Opens up new options for care

Works Cited

- Corvallis PD. “Benton/Corvallis Situation Table Six Month Update,” n.d.
- Maddock, Mariah, Diane Atkinson, and Tammy Kealey-Donaldson. “The Situation Table: Reducing Risk and Building Well-Being Through Collaboration,” May 2019.
- McFee, Dale R., and Norman E. Taylor. “The Prince Albert Hub and the Emergence of Collaborative Risk-Driven Community Safety,” n.d.

Identifying transcription structure in the Wilted1 mutation in maize (Zea mays subspecies mays L.)

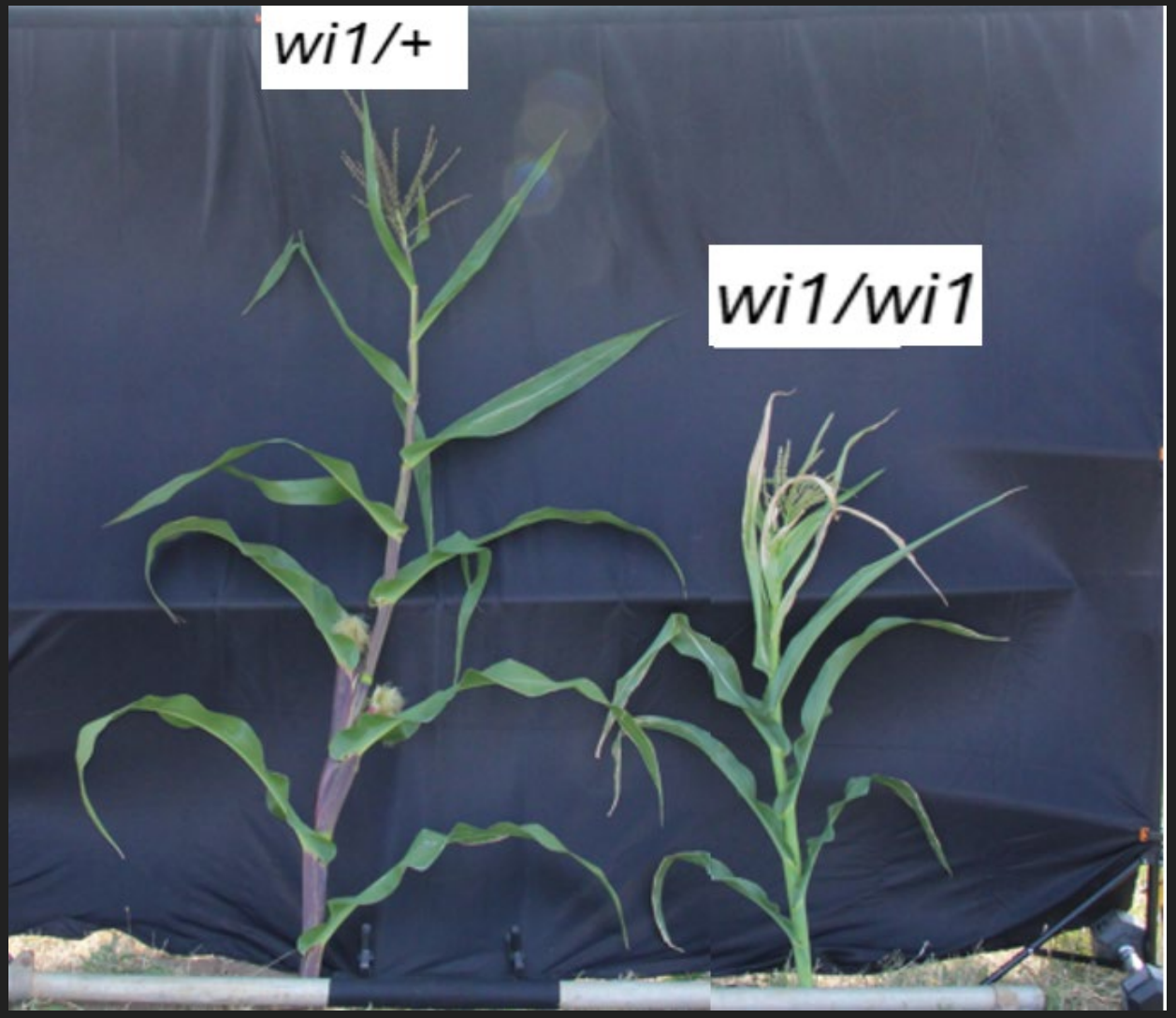
By Jaden Lewis

Important of Maize (Zea mays)

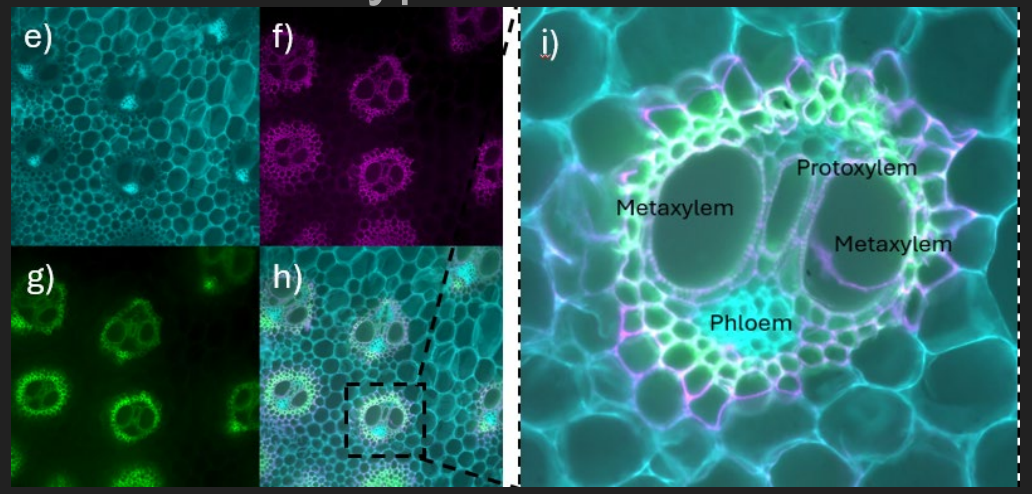
- **World's most widely produced crop**
  - Estimated value of $71.6 billion in the U.S. Market (Global Maize Market, 2025)
- **Significant socioeconomic and agricultural impact**
  - Supports human health
  - Improves farmers' standards of living
  - Serves as an indicator crop for soil fertility
  - Generates income and boosts food-crop production

  (Adiaha, 2017)
- **Relevance to future food security**
  - Understanding genes regulating maize vascular cell growth and development can help enhance food production under ongoing climate change

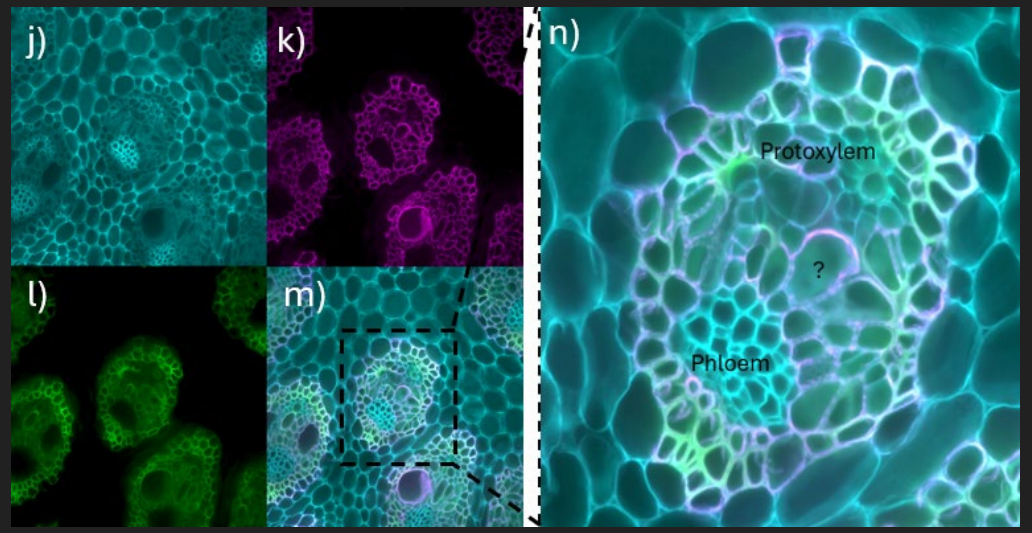
Wilted1 Description and Phenotype in Maize



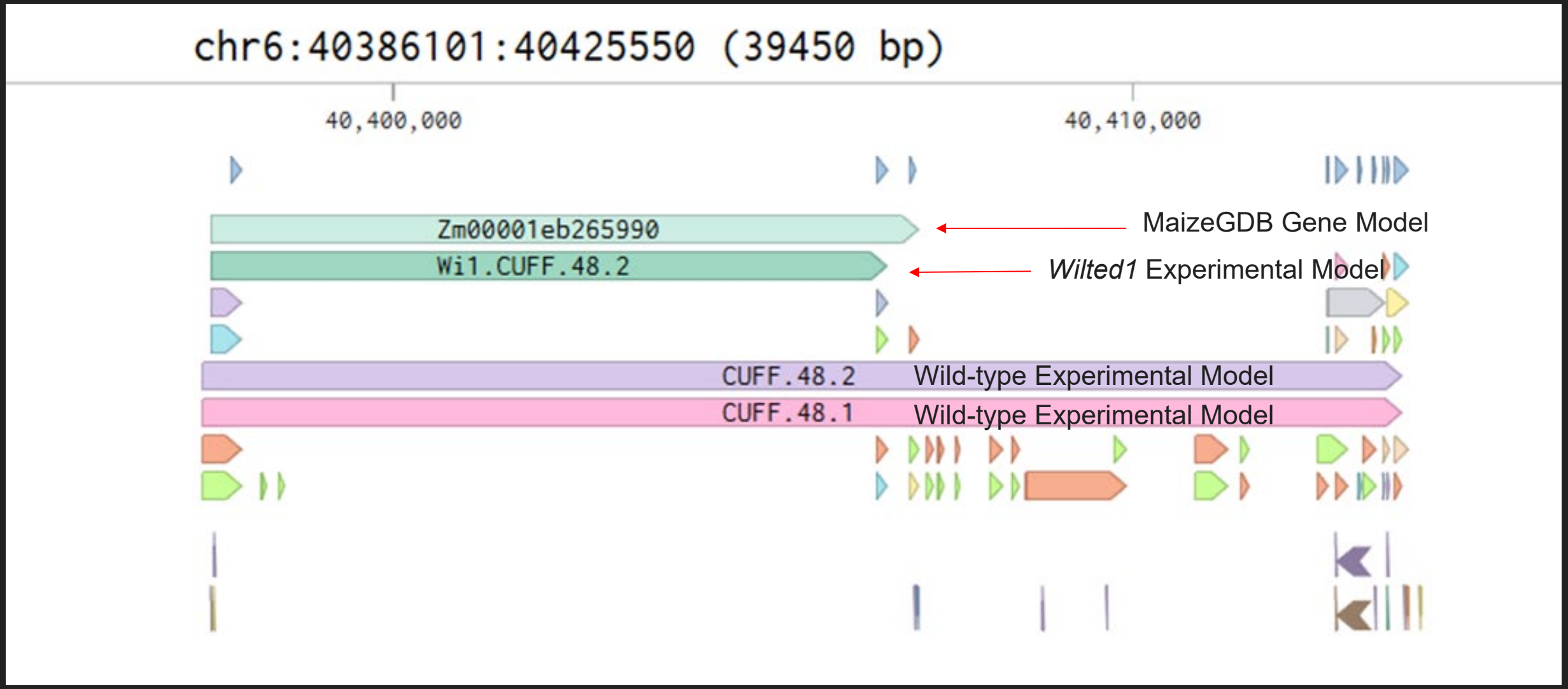
wi1/+: Wildtype



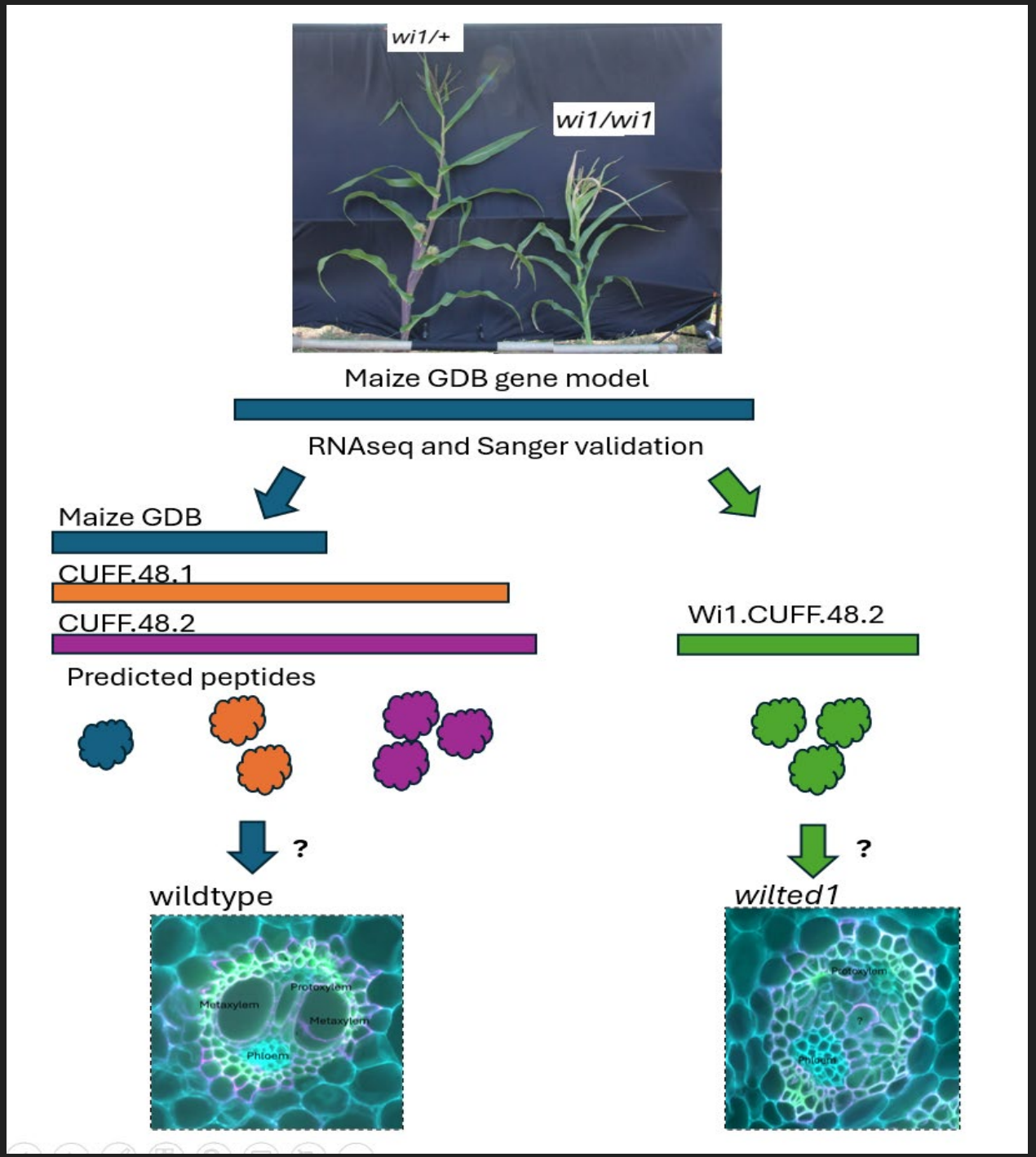
wi1/wi1: *wilted1*



Gene Model Annotations



Summary


wi1/+
wi1/wi1
Maize GDB gene model
RNAseq and Sanger validation
Maize GDB
CUFF.48.1
CUFF.48.2
Predicted peptides
?
wildtype
Protoxylem
Metaxylem
Metaxylem
Phloem
Wi1.CUFF.48.2
?
wilted1
Protoxylem
Phloem

Sources

1. Adiaha, Monday. (2017). “The impact of Maize (Zea Mays L.) and it uses for human development: A review.” *International Journal of Scientific World* 5(1), 93-95 https://doi.org/10.14419/ijsw.v5i1.7585
2. (2025) “Global Maize Market: Continues Growth Expected with Market Volume Reaching 1,304M Tons and Market Value Reaching $100B by 2035.” *IndexBox.* https://www.indexbox.io/blog/maize-world-market-overview-2024-8/
3. Postlethwait, S. N., and O. E. Nelson Jr. (1957). “A Chronically Wilted Mutant of Maize.” *American Journal of Botany* 44(7), 628-633 https://doi.org/10.1002/j.1537-2197.1957.tb10586.x
4. Singh, A., Li, G., Brohammer, A. B., Jarquin, D., Hirsch, C. N., Alfano, J. R., & Lorenz, A. J. (2019). “Genome-Wide Association and Gene Co-expression Network Analyses Reveal Complex Genetics of Resistance to Goss’s Wilt of Maize.” *Genetics* 9(10), 3139-3152 https://doi.org/10.1534/g3.119.400347

Honors Thesis

Empowering Families: Communicating Early Childhood Research Reports with a Trauma-Informed Approach

Margaret Martin
Social Science and Communication

Mentor: Shannon Lipscomb Ph.D.

The Study

- The problem: knowledge about properly communicating scientific research with participants is limited
  - Effective communication of scientific research is important to promoting healthy communities

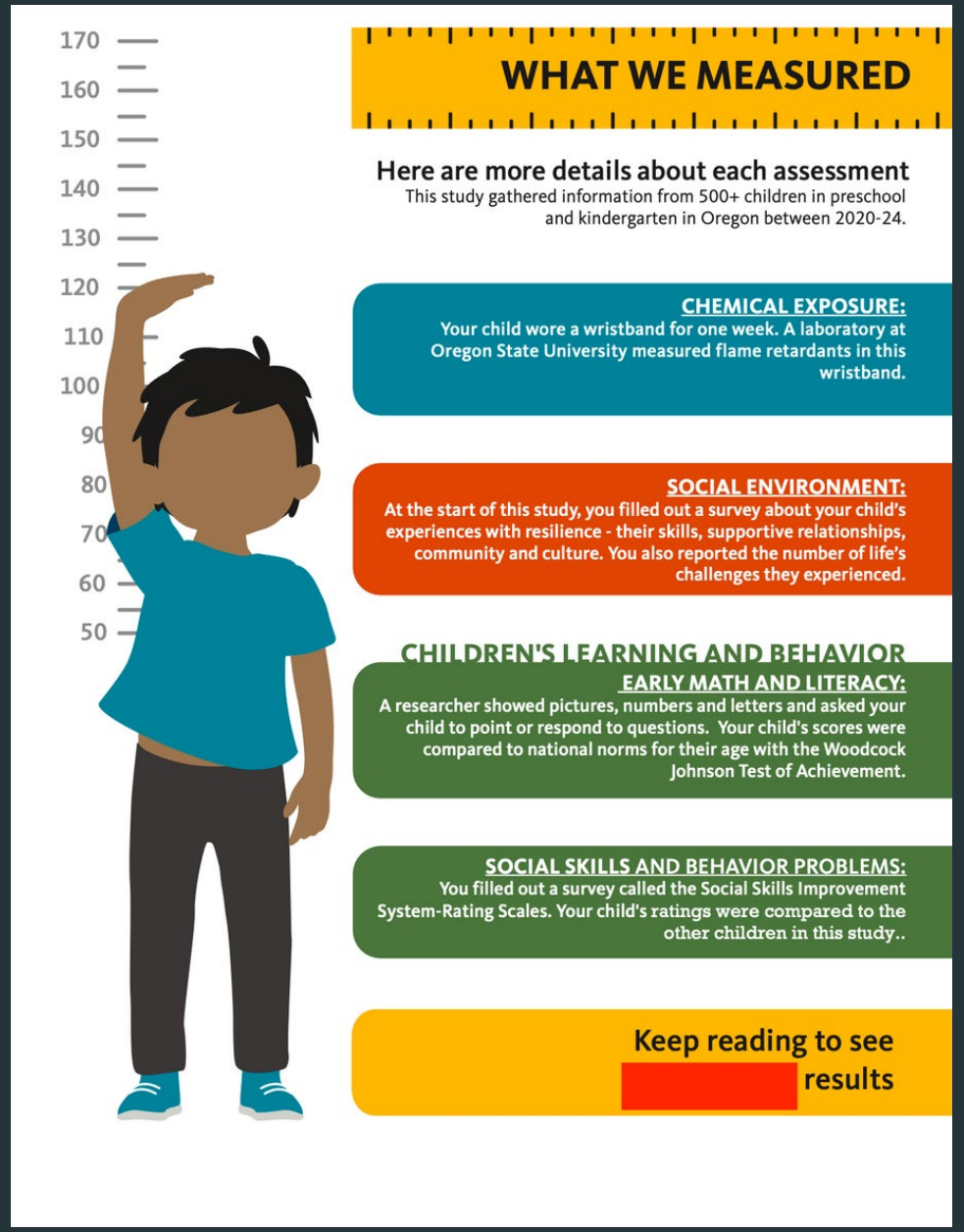
- Context: statewide study of young children's learning, development, and exposure to chemical flame retardants
  - Analysis of parent's responses regarding the usefulness and effectiveness of a "report back" about their child
  - Mixed methods - inductive coding and statistical analysis

Findings

- Results demonstrate an overall utility of reporting research data back to participants

- Parents found learning about chemical exposures, understanding their child's academic skills, actionable information, and validation of what they knew about their child to be most useful

- All environmental and developmental sections of the report back were rated at least “moderately helpful”
- The chemical exposure section was found to be most effective



Conclusion

- This study contributes to understandings of scientific research communication with a specific focus on families with young children
- A primary goal of the report backs shared in this study is health literacy promotion
- Positive reflections about the report backs are encouraging evidence for future research communication

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Clemency in the State of Oregon:

How One Governor's Decisions Changed Lives

Presentation by **Lindsay Scales**

Honors Bachelors of Science in Psychology

Completed Under the Mentorship of Dr. Michelle Inderbitzin

February 2, 2026

Research Methodology

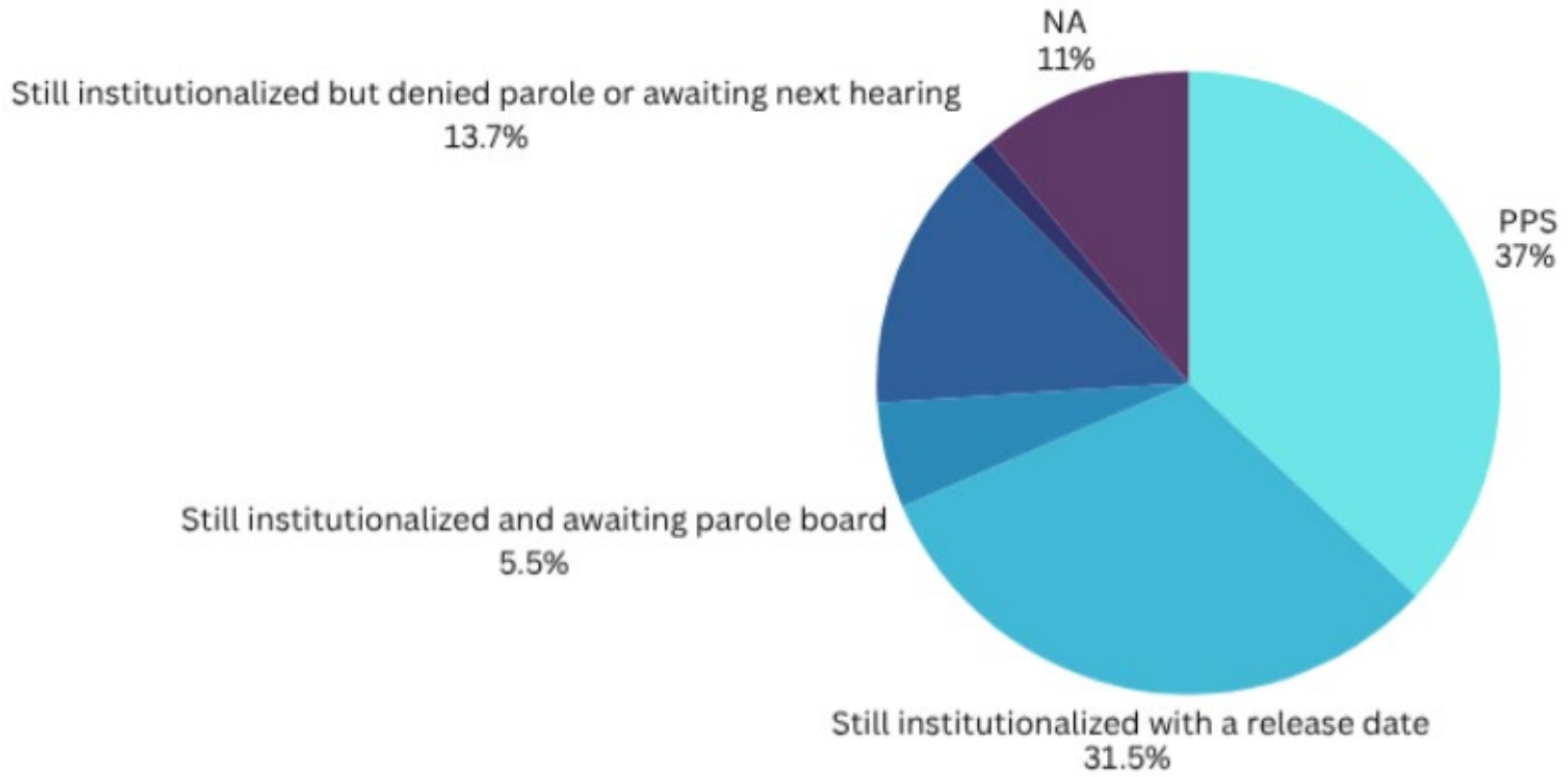
Goal:

- Conduct follow-up on 73 clemency recipients sentenced as juveniles
  - See where they are today
  - Analyze factors to conduct policy recommendations

Methods:

- Derived data from Governor Brown's 2022 Clemency Letter
- Oregon Offender Search
- Victim Information System in Oregon (VISOR)
- Google search of each recipient
  - Found public newspaper articles, case briefings, prison newsletters, and personal blog posts

Research Findings



Brown, K. (2022). 2022 for 2021 Gov. List of Clemency. https://www.oregonlegislature.gov/citizen_engagement/Reports/2022-Clemency-Letter.pdf

Policy Recommendations

- Increasing access to prison treatment and rehabilitation programs
- Implement community prevention efforts that address mental health concerns before someone engages in criminal behavior

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Thank You!

Presentation by **Lindsay Scales**

Identity and its Implications

Israeli-Diaspora Relations | 1948-2023

Benjamin Adams | BS Public Policy
Advisor | David Bernell

Winter Undergraduate Research Showcase

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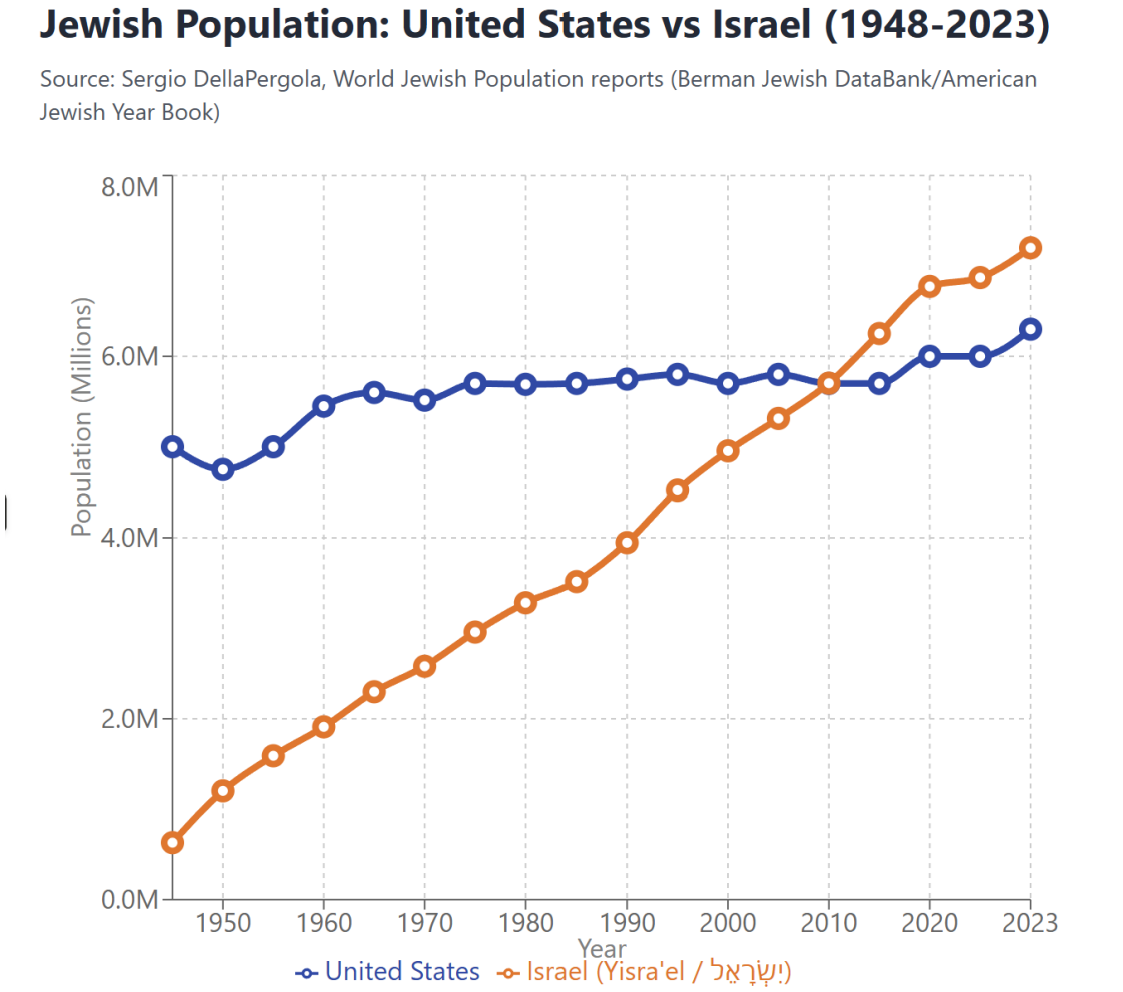
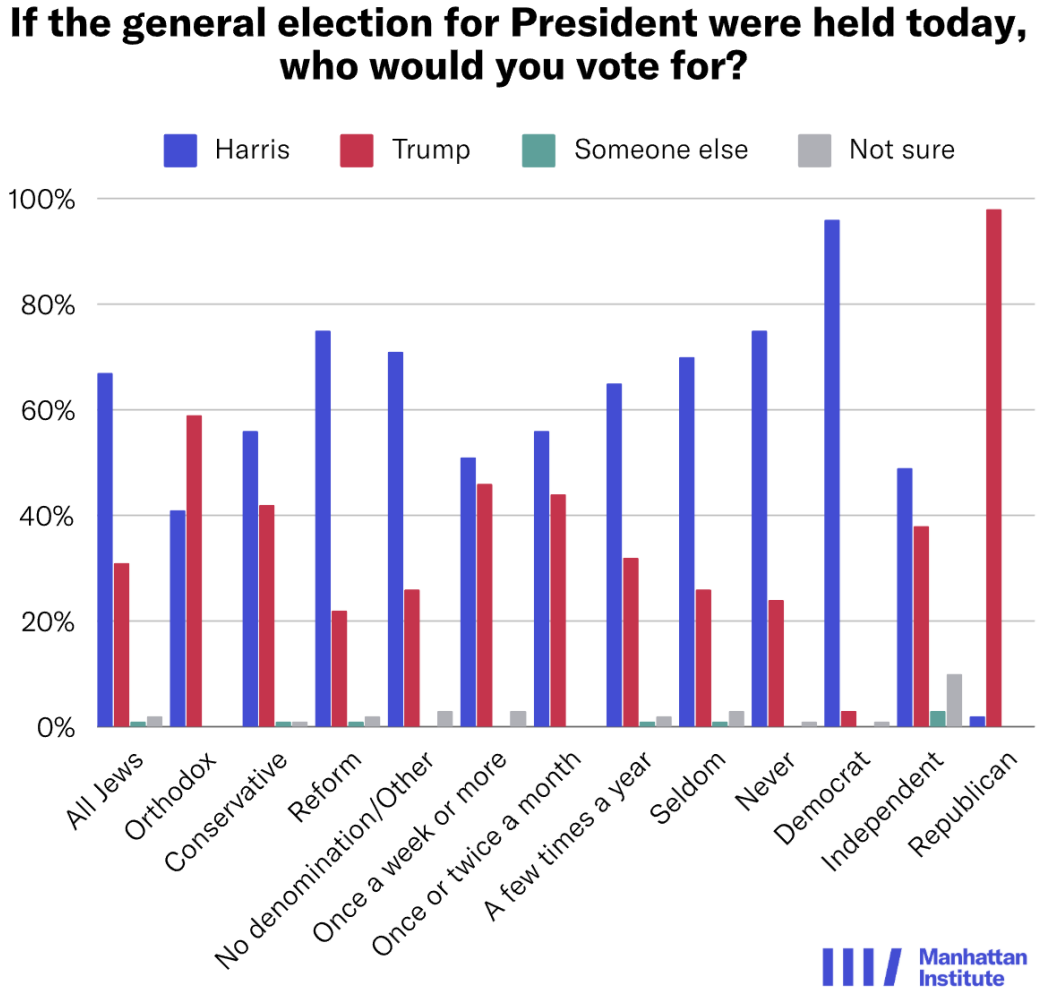
Evolution of Israeli-Diaspora Relationship

- 1948-1967: US-Diaspora dominant culturally, economically, and demographically.
- 1967-2000: US-Diaspora dominant economically and demographically. Cultural parity with Israel
- 2000-2023: Israeli demographic dominance, Israeli cultural edge, US-Diaspora economic edge



Degradation of Diaspora Israel Relationship

- Bifurcation between Orthodox and Mainline
- Greater moral hesitation among Mainline American Jews regarding Israeli Policy
- Greater exposure of each group to others opinions



Effect of the Relationship on Policy

- Diaspora helps set American understanding of the region
- Historically main constituency for Pro-Israel politics
- Important in defining anti semitism to general public

Expected Developments for Future

- Further alienation and increased polarization within the diaspora
- Breakdown of consensus setting
- Increased public conflict between Israeli government and mainline diaspora institutions

Grape Pomace Extract as a Natural Fungicide

Yoko Clack | Qinyang Wang | Food Science & Technology Department |

Food spoilage & waste

Conventional Fungicides

Agro-industrial waste

Can we develop a natural & sustainable anti-fungal agent from Grape Pomace & increase efficacy with UV-A?

Grape Pomace extract Fungicide

Grape

Wine

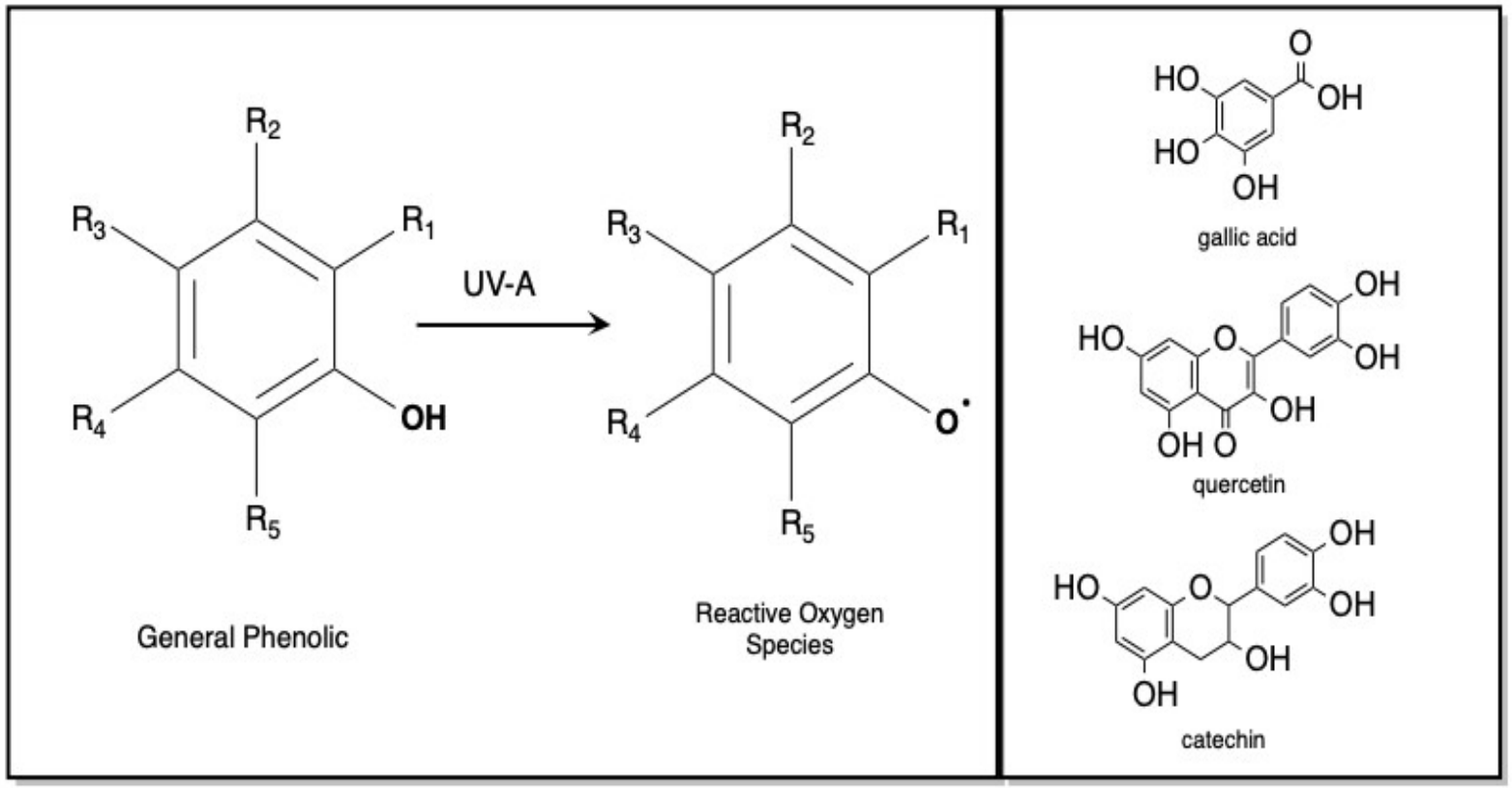
Grape Pomace

UV-A

- 315–400 nm
- Most common wavelength that reaches the Earth's surface
- Less damaging than UV–B and UV–C

Why GPE & UV-A?

- GPE is rich in phenolics
- Aromatic ring structure absorbs energy 300–500 nm
- When specific energy is absorbed molecule is excited, undergoes electron transfer, and radical formation (unpaired electron)



Meth

25 mL 70% EtOH solevant to 1 gram GP (dwb)

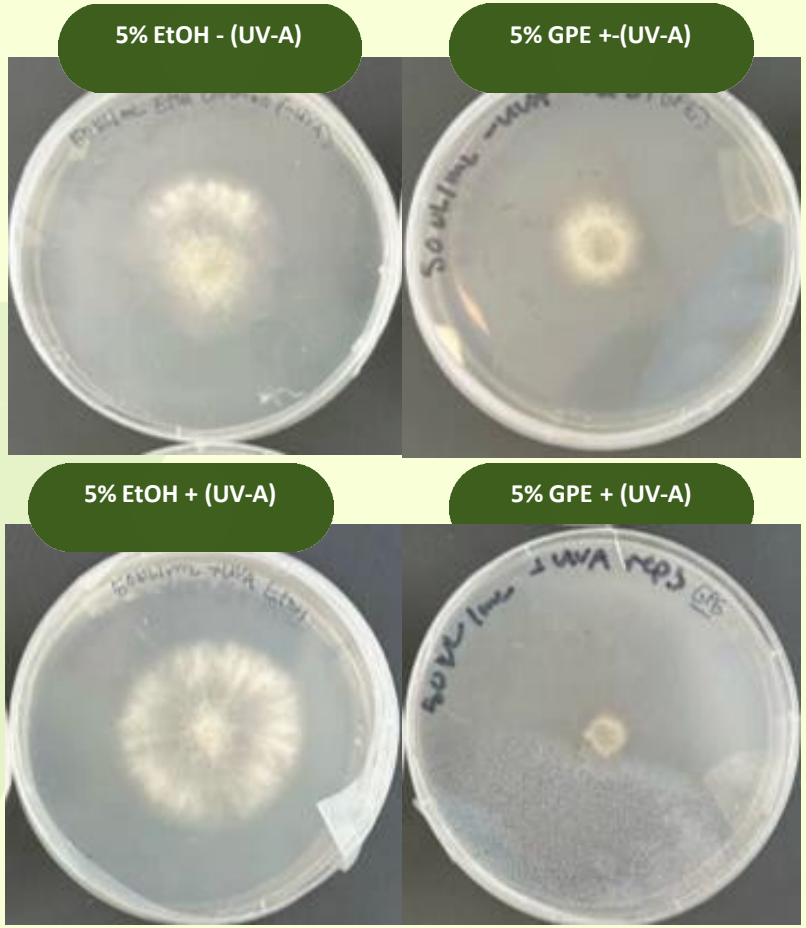
Sonnication & Maceration

Sterile Filtration

Poison Plate Assay 5% GPE or EtOH

UV-A Treatment

No UV-A Treatment



Treatment	Percent Radial Growth Inhibition
5% GPE	31.50% ± 9.78%
5% GPE +UV-A	71.16% ± 13.98

Results

- GPE shows inhibitory effects at 5% volume
- Inhibition is about doubled with UV-A
- 3-day grow period

Next Steps

- Perform 2 other biological replicates to obtain a larger sample size and perform statistical analysis
- Use other dosage of GPE and UV-A treatments
- Develop encapsulation methods and test the stability of extracts

Works cited

1. Wang, X. et al. Polyphenolic natural products as photosensitizers for Antimicrobial photodynamic therapy: recent advances and future prospects. Front. Immunol. 14, 1275859 (2023).

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Thank You to all presenters and attendees

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