

# Criminal Networks

## “Crash Course”

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Let's break into groups!

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# Groups

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- ❖ In your groups, share the following information:
  - ❖ Who are you and what do you do?
  - ❖ What are some of the problems that your agency tries to solve?

# Exercise

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## Network Structure and Information Flow Exercise

### Objective:

The goal of this exercise is to illustrate how different network structures impact information flow and problem-solving. Each group will be organized into a unique structure, and their task is to collaborate and piece together information to complete a sentence.

### Instructions:

#### 1. Group Assignment:

They will be divided into three groups, each following a different network structure for communication:

- Centralized Structure: One person will be the “central node” or leader. Only this person can communicate with everyone else directly. Each group member must relay their information to the central node, who will then coordinate the task.
- Chain Structure: Group members will form a line, and each person can only communicate with their immediate neighbors (one on each side). Information must be passed down the line until everyone has all the details needed to complete the task.
- Decentralized Structure: In this group, all members can freely communicate with one another, allowing multiple, simultaneous exchanges of information.

#### 2. Objective of the Task:

Each member of the group holds a unique word or short phrase that is part of a larger sentence. The objective is to share these pieces with one another and organize them in the correct order to construct a meaningful, complete sentence. This sentence will be a key phrase or concept relevant to the class topic, but they won’t know the exact wording in advance. The sentence will be something like “A network is only as strong as its connections.” Only verbal communication is allowed.

### Discussion and Debrief:

After completing the exercise, we will come together to discuss:

- Efficiency: Which network structure allowed the group to complete the sentence most quickly?
- Accuracy: Were there any misinterpretations or challenges in understanding the sentence due to communication barriers in the network structure?
- Challenges and Insights: What were the main difficulties faced? How did these impact their ability to complete the task?

# Group Exercise

- ❖ Each of you has a unique word or phrase that is part of a larger sentence.
- ❖ Your objective (if you choose to accept it) is to share these pieces with each other and organize them in the correct order to construct a meaningful, complete sentence.



# Rules

- ❖ You will have 5 minutes to complete your objective.
- ❖ Only verbal communication is allowed.
- ❖ You can only communicate with someone according to your group designation.



# START!



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# Discussion

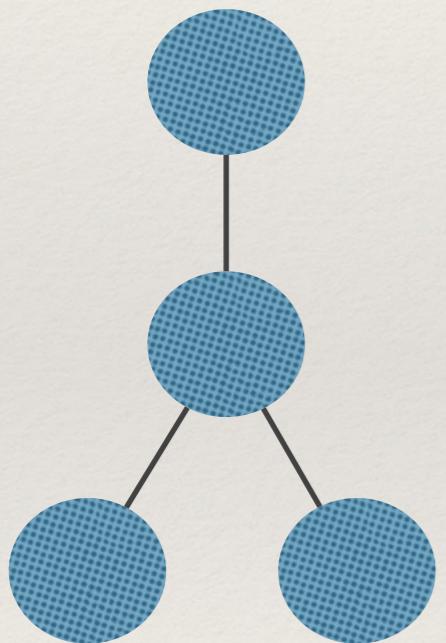
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- ❖ Which group structure completed the sentence fastest?

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# Discussion

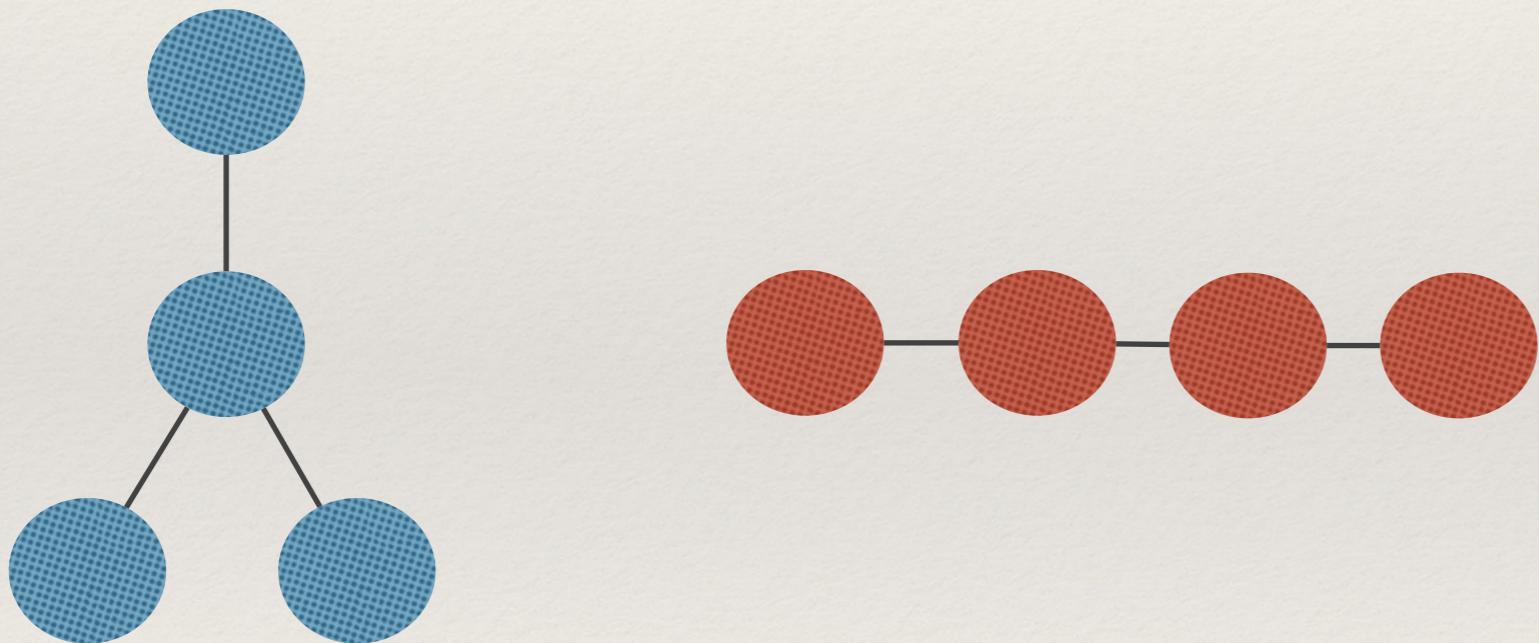
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# Discussion

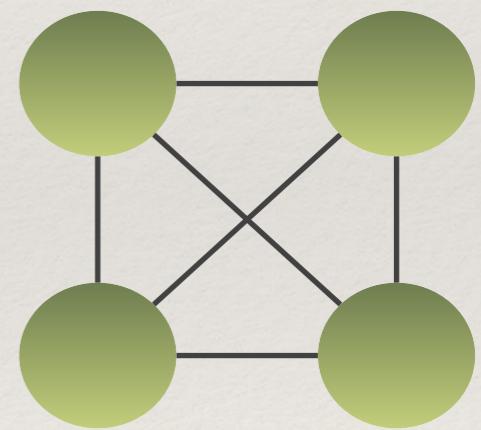
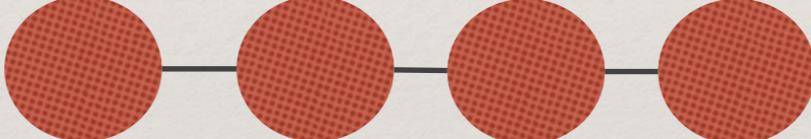
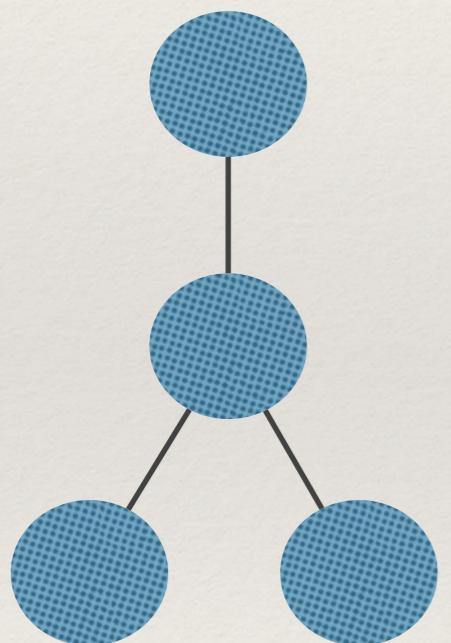
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# Discussion

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# Discussion

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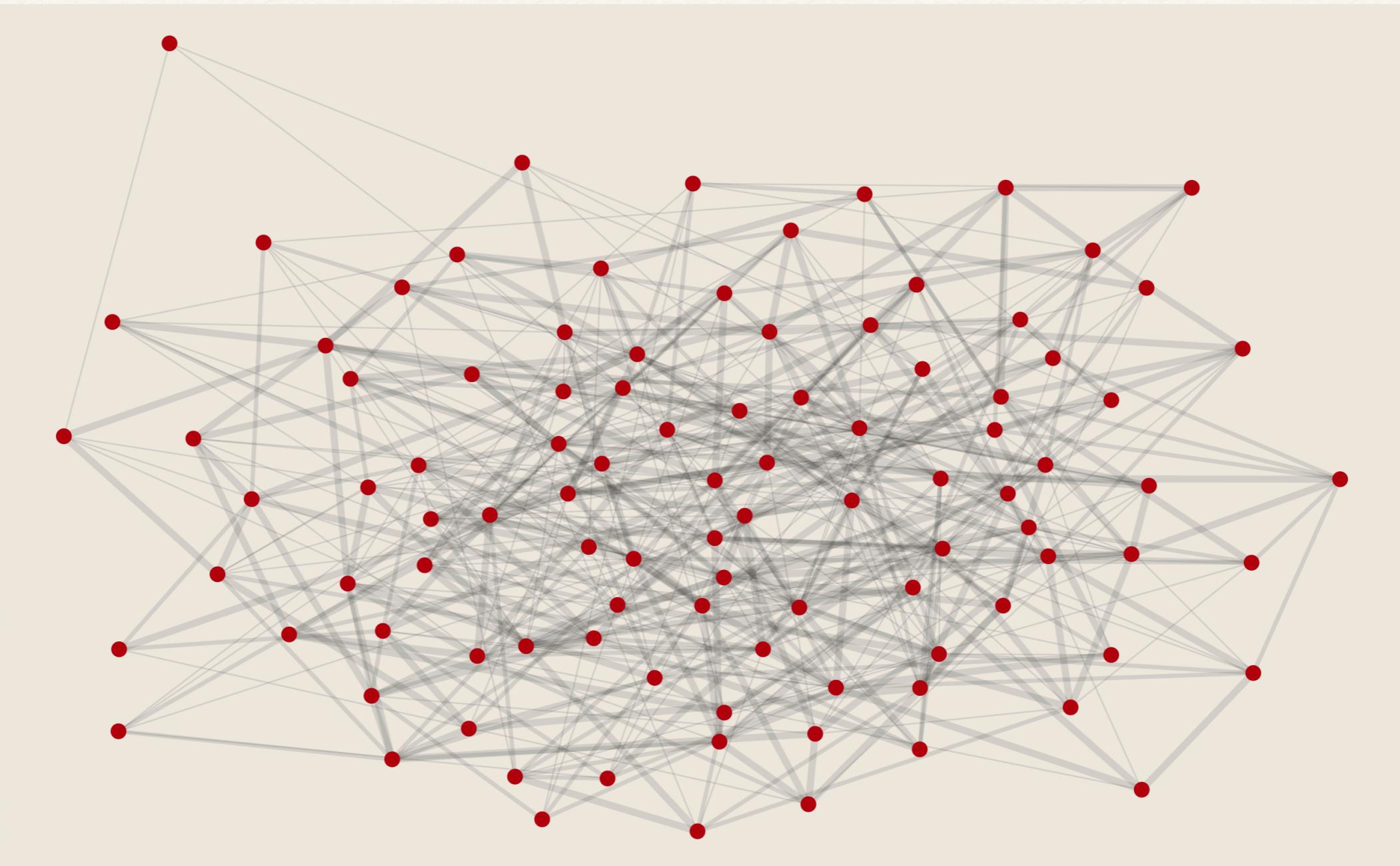
- ❖ What were some misinterpretations or barriers to communication for each group?

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# Discussion

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- ❖ If we reshuffled the groups, would the outcome be different? Why?



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# Why Networks?

NEWS IN BRIEF

# Sudden Death Of Aunt Creates Rupture In Family Gossip Pipeline

11/23/15 8:45am • SEE MORE: LOCAL ▾



<https://local.theonion.com/sudden-death-of-aunt-creates-rupture-in-family-gossip-p-1819578447>

# Sudden Death Of Aunt Creates Rupture In Family Gossip Pipeline

VIRGINIA BEACH, VA—Grieving family members of local aunt Laurie Shelton confirmed Monday that the 48-year-old woman's unexpected death had caused a major breach in their gossip pipeline, suddenly disrupting access to the latest dirt on all their relatives. “Since Aunt Laurie passed, news about how Stephanie’s new boyfriend can’t hold down a job and updates on Uncle Jeff’s gambling habit have slowed to a trickle,” said Shelton’s niece Arielle, mourning the loss of a woman who for years had reportedly ensured a steady stream of the juiciest tidbits about relatives’ layoffs, unplanned pregnancies, personal bankruptcies, and misdemeanor shoplifting charges. “All the best gossip flowed through her, and now she’s gone. For all I know, the twins in North Carolina could have been caught smoking pot, Grandma could be back together with Leon, and Uncle Mike could be considering a vasectomy. It’s a devastating loss for the whole family.” Several in the family expressed hope that, for the time being, a sufficient supply of idle chatter could be rerouted through Cousin Staci to meet their immediate needs.

## **Sudden Death Of Aunt Creates Rupture In Family Gossip Pipeline**

*What happened?*

*Why did it happen?*

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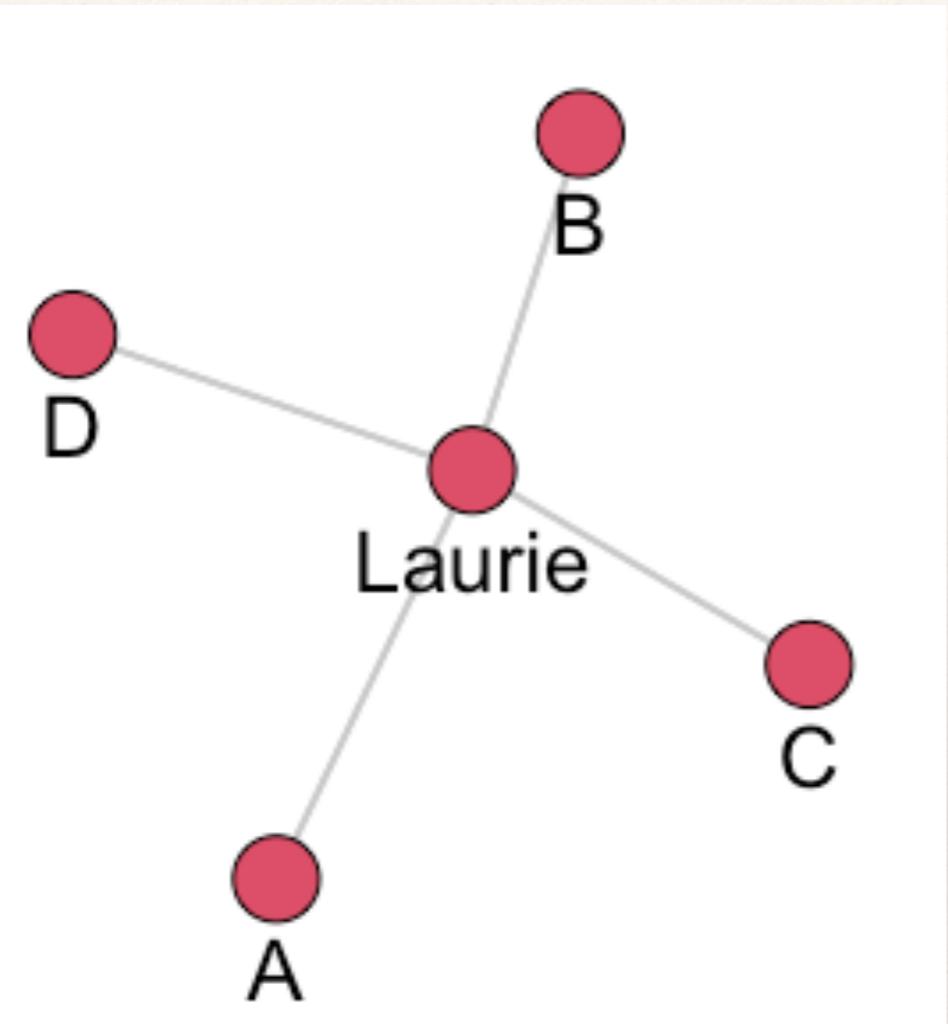
## **Sudden Death Of Aunt Creates Rupture In Family Gossip Pipeline**

**The Shelton family experienced a network intervention**

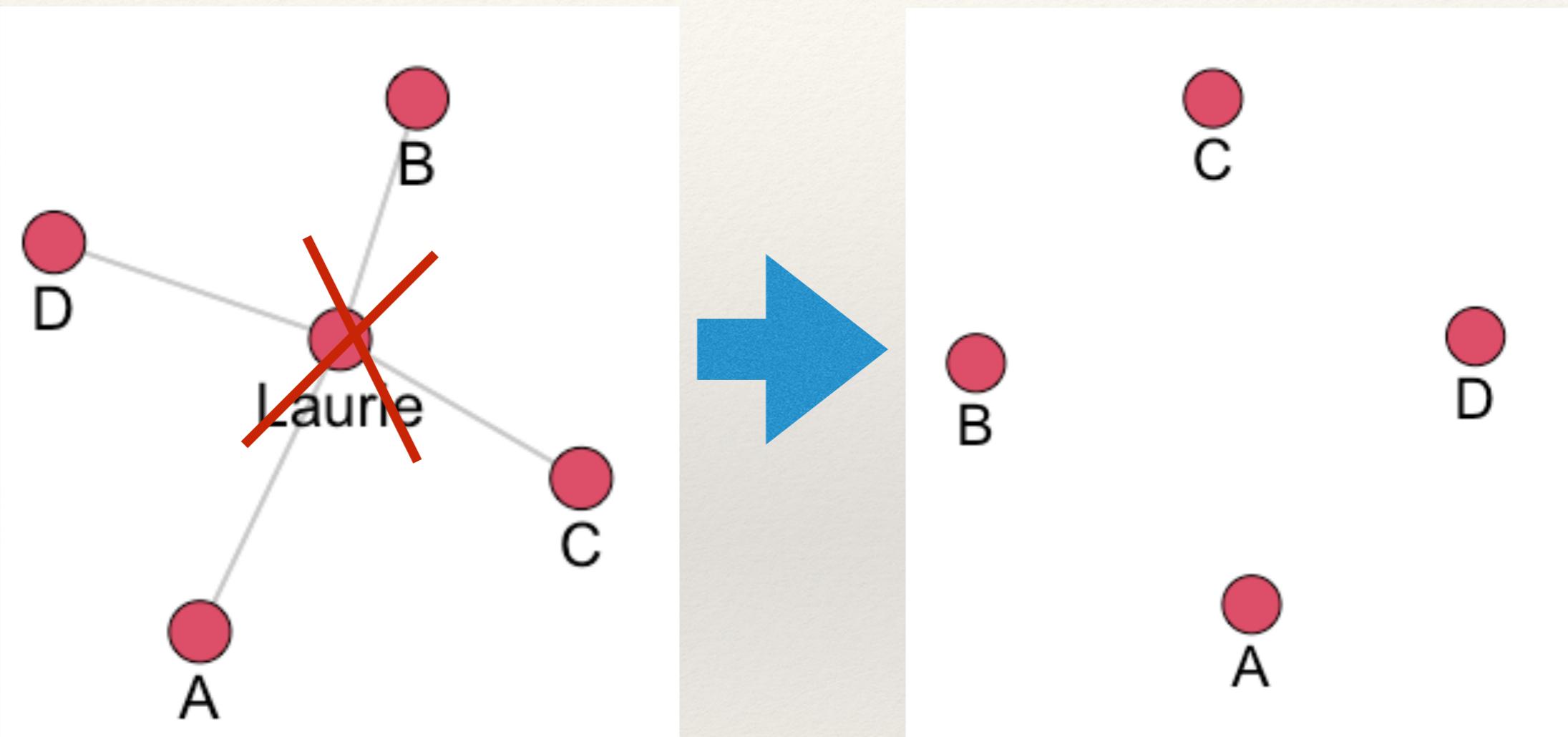
**(A change in the network)**

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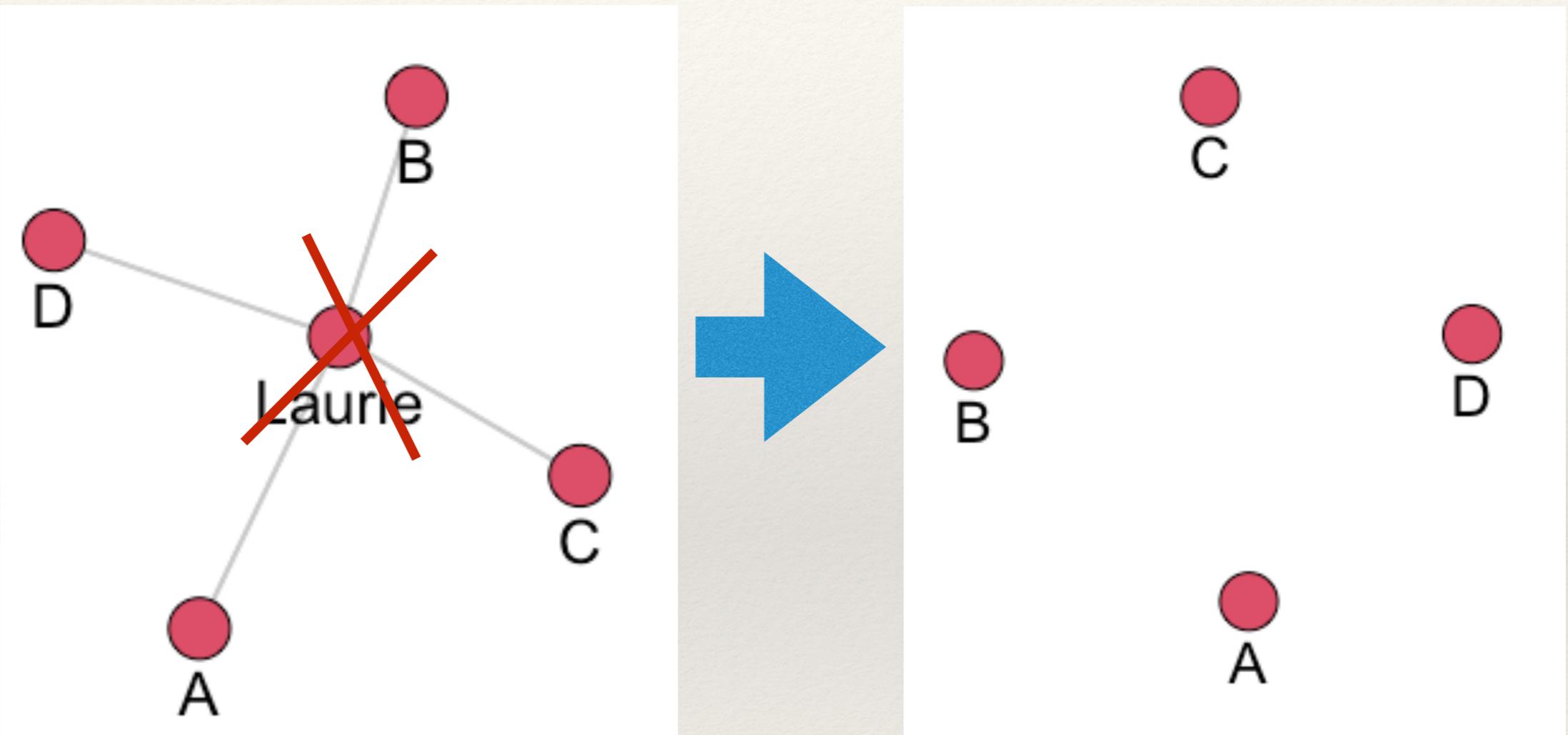
# Sudden Death Of Aunt Creates Rupture In Family Gossip Pipeline



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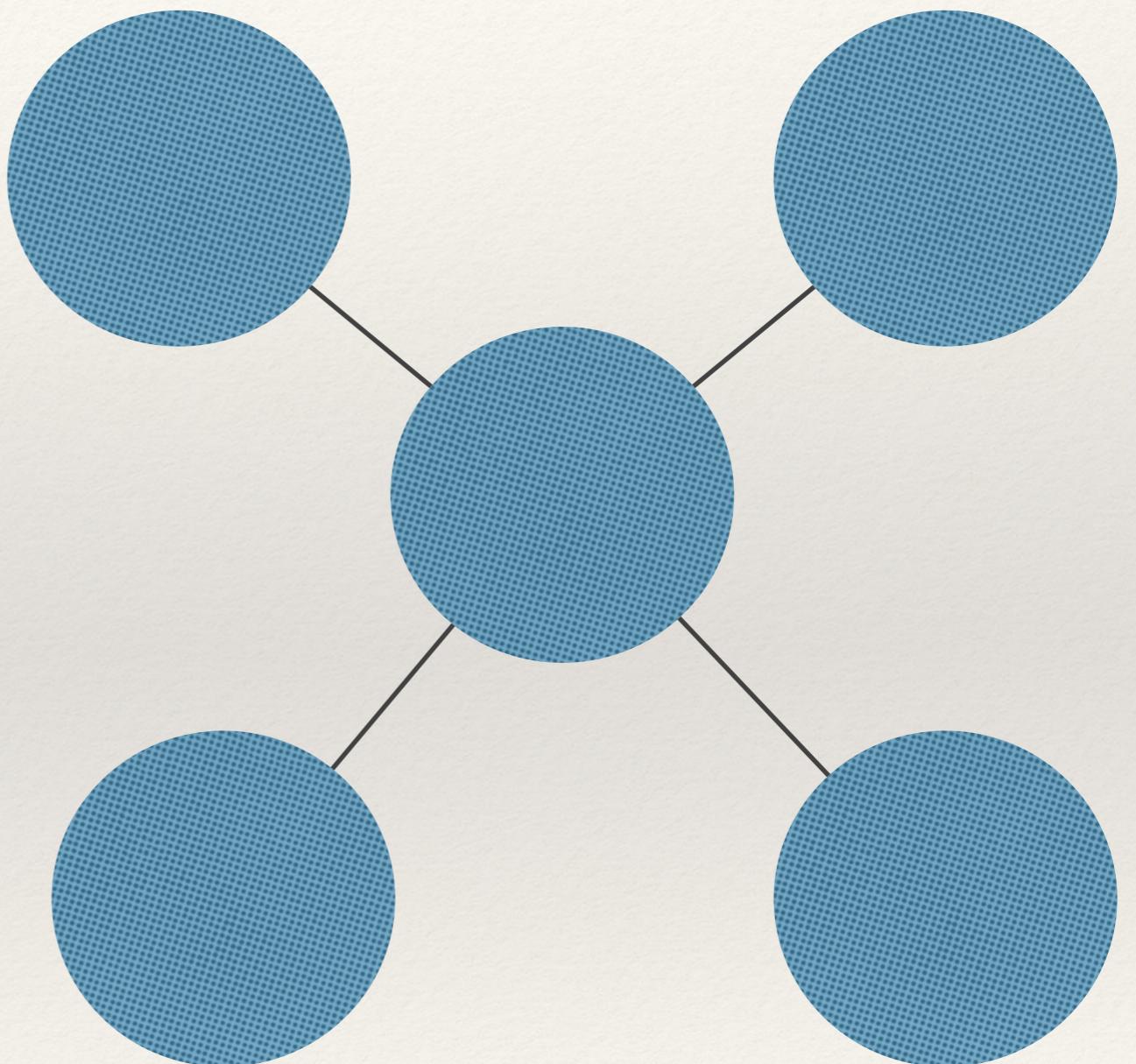
## Sudden Death Of Aunt Creates Rupture In Family Gossip Pipeline



*The Family Gossip Pipeline is vulnerable*

# Why Networks?: Networks Matter!

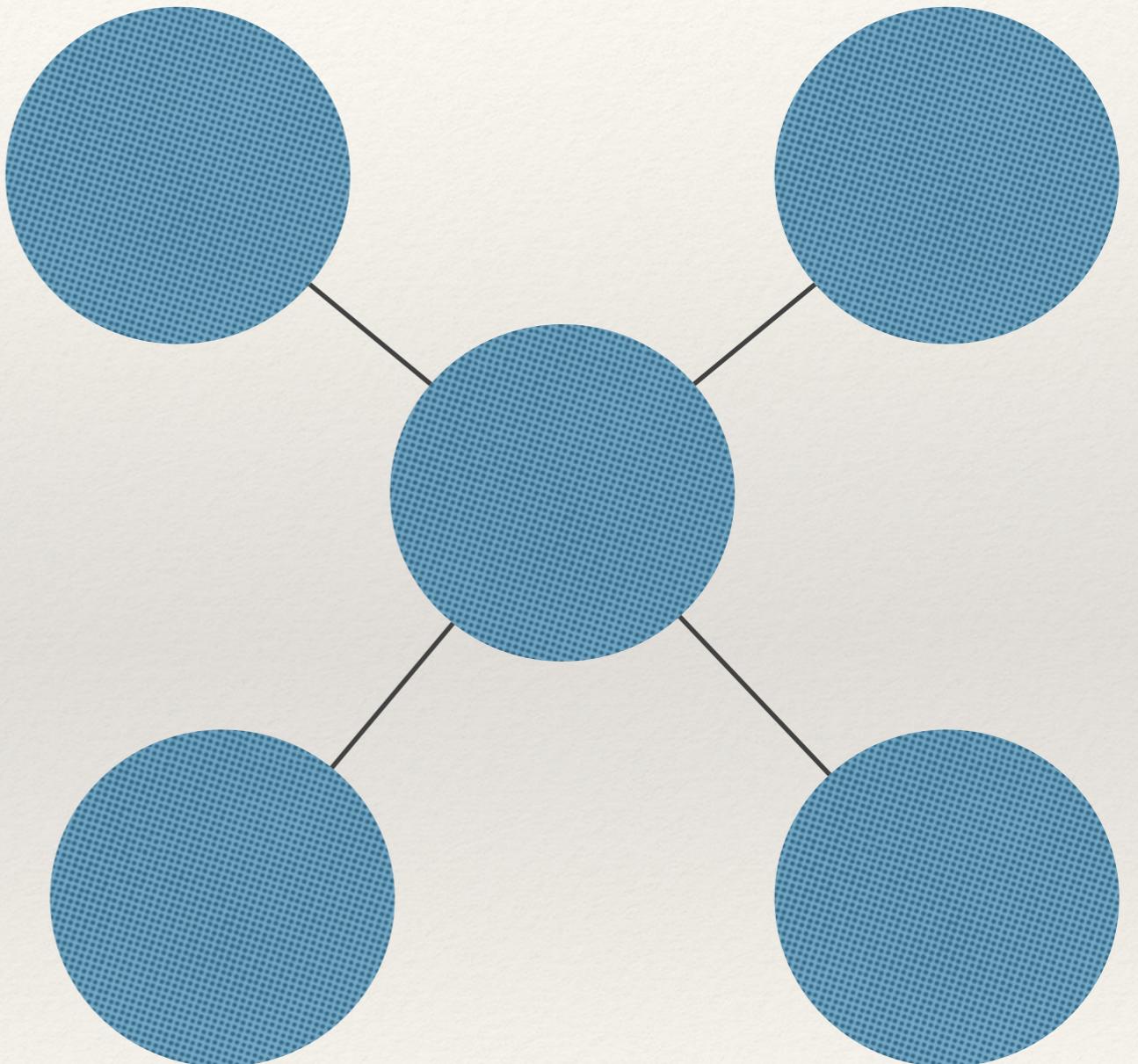
Just as gossip spreads through a network, so may drugs, money, people...



# Why Networks?: Networks Matter!

Just as gossip spreads through a network, so may drugs, money, people...

Understanding the network  
matters

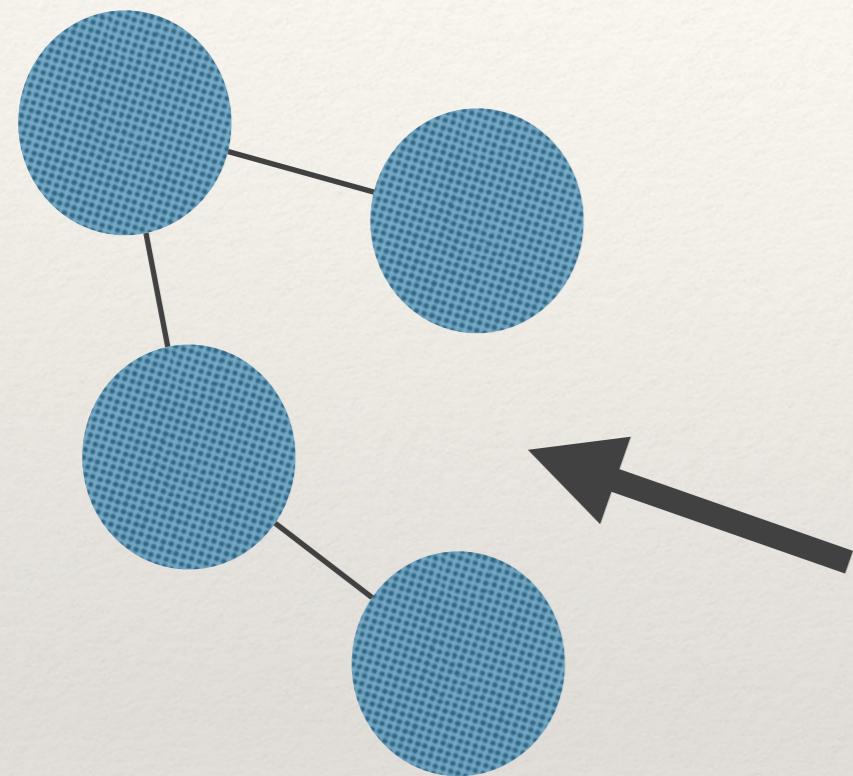


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# Example: Criminal Organization in Italy

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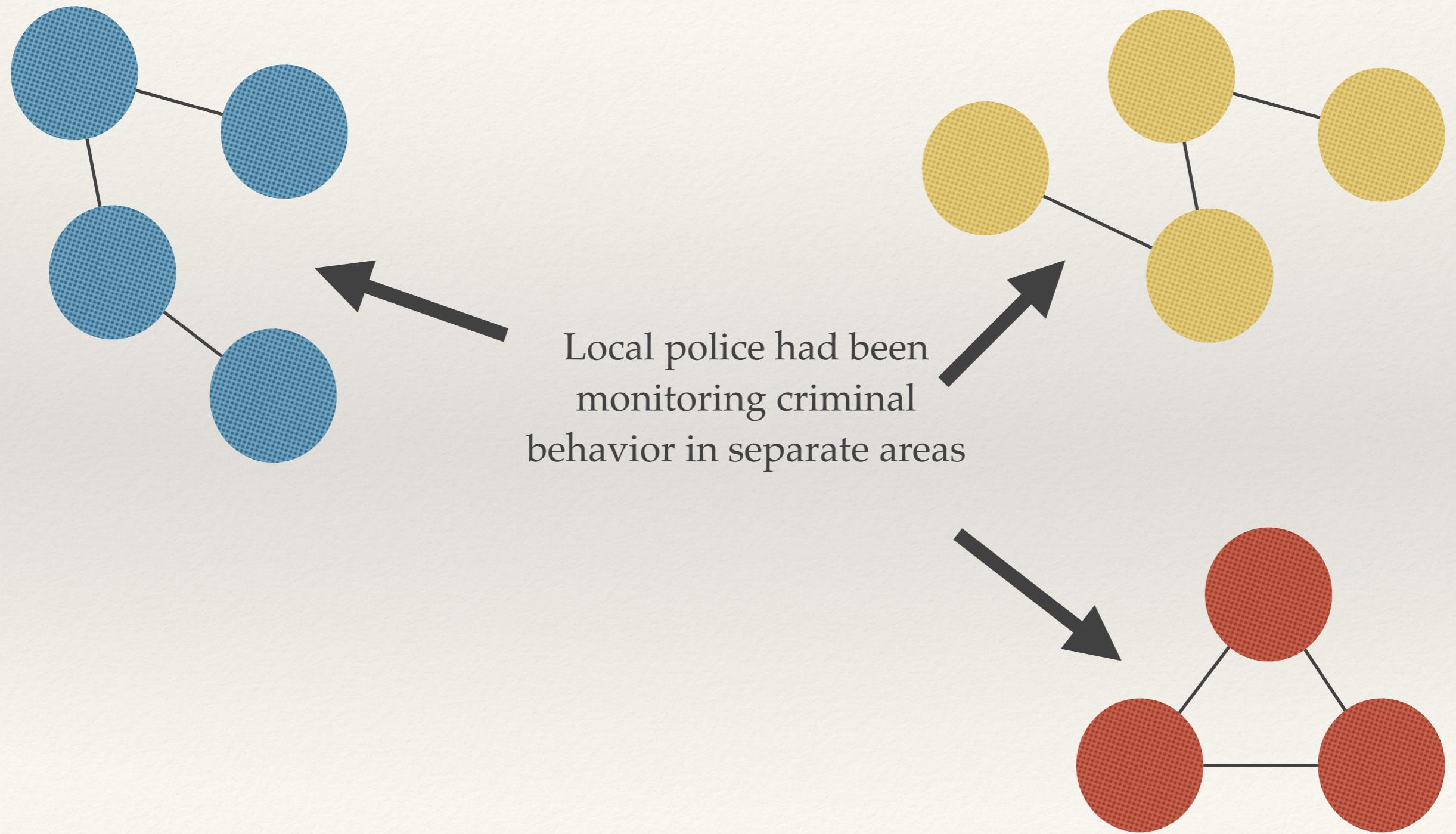


Local police had been monitoring criminal behavior in separate areas

# Example: Criminal Organization in Italy



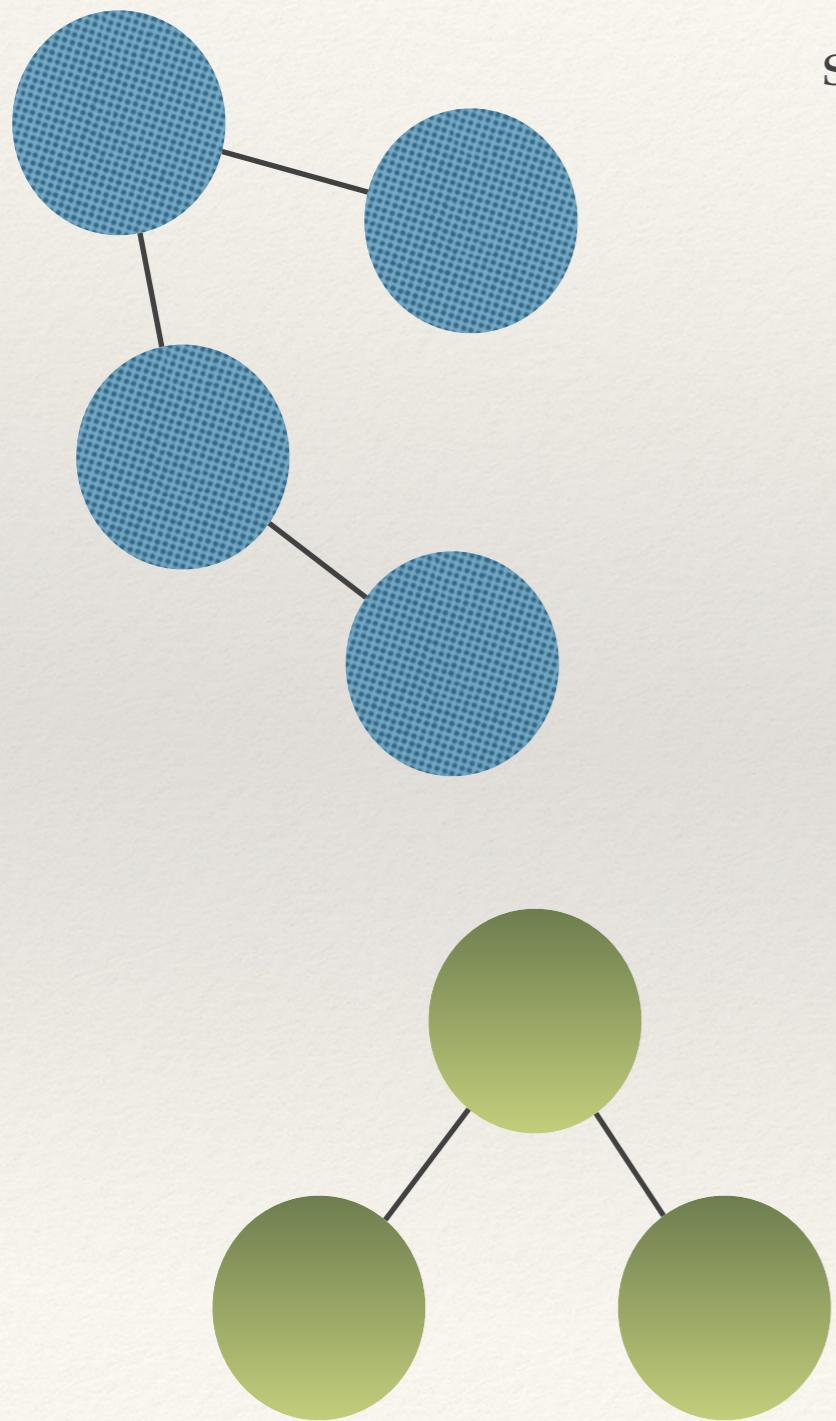
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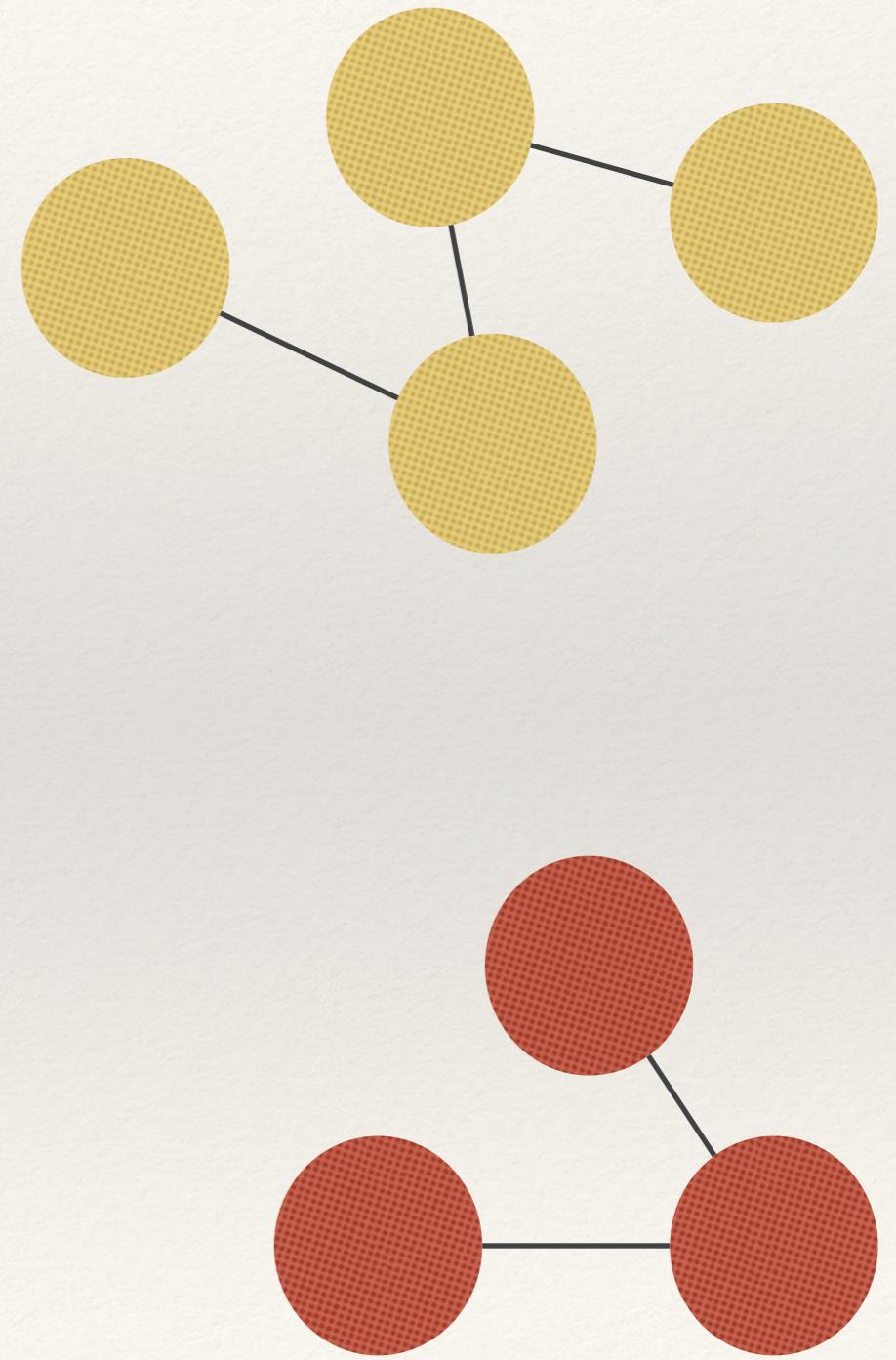
# Example: Criminal Organization in Italy



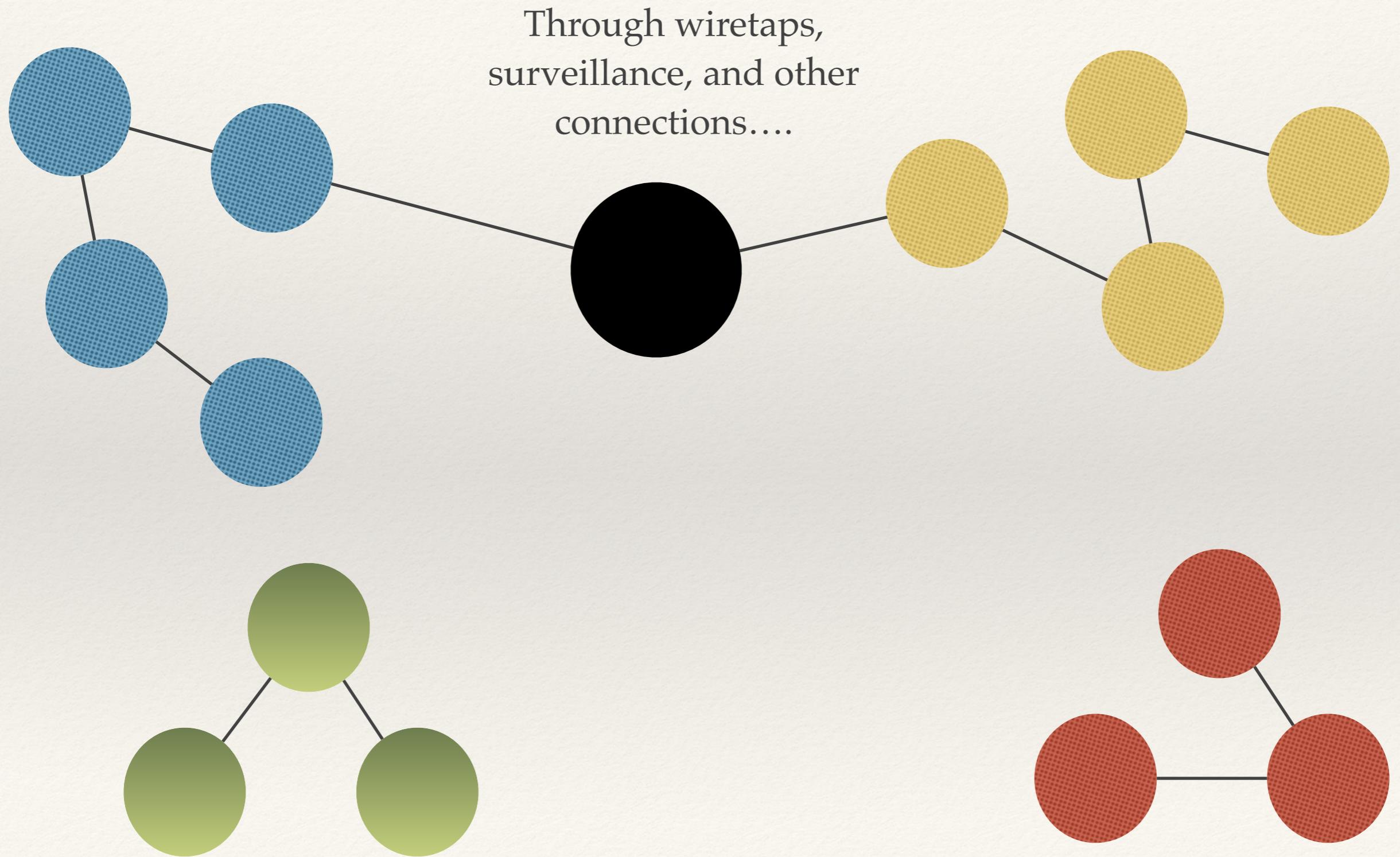
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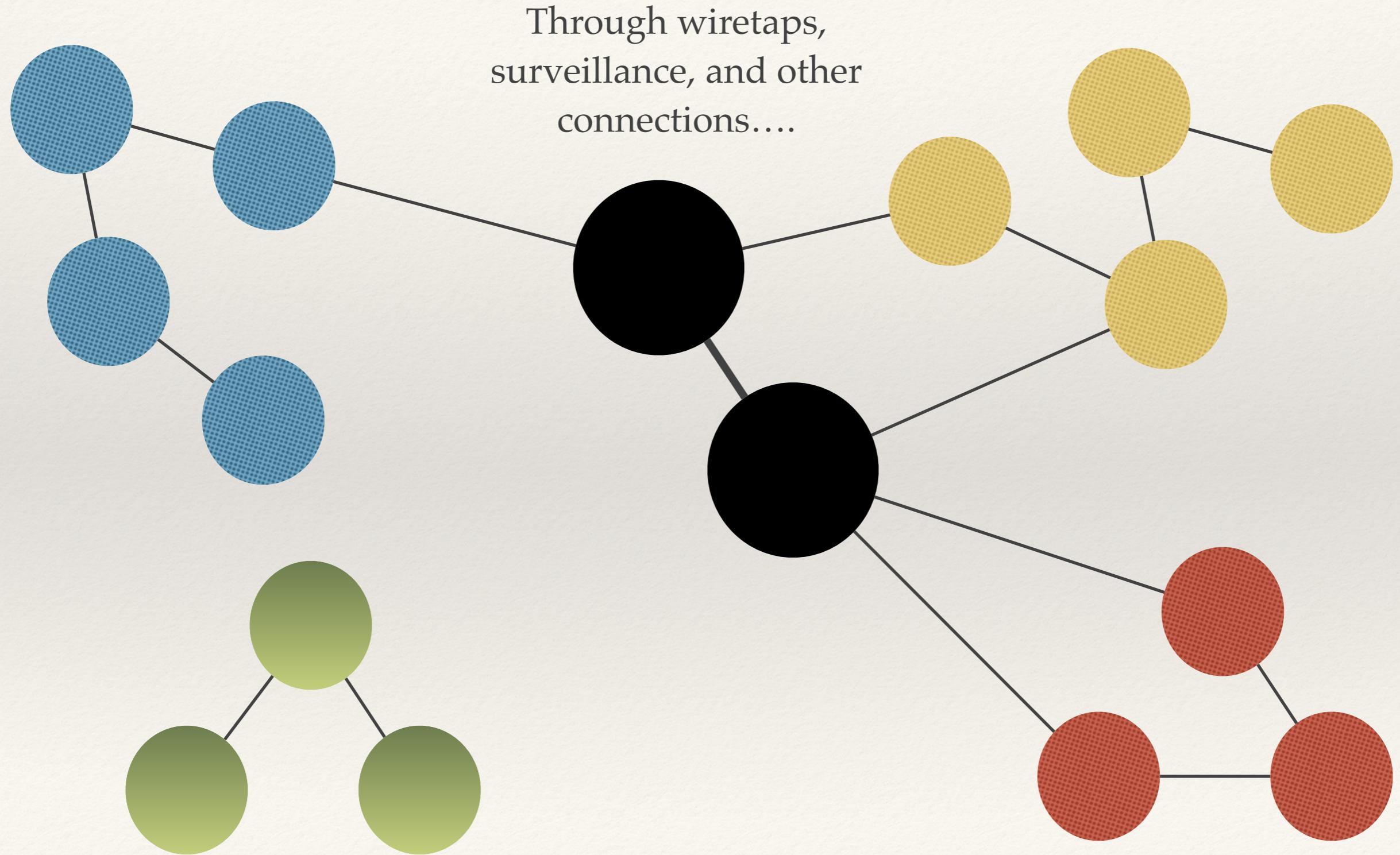
Through wiretaps,  
surveillance, and other  
connections....



# Example: Criminal Organization in Italy

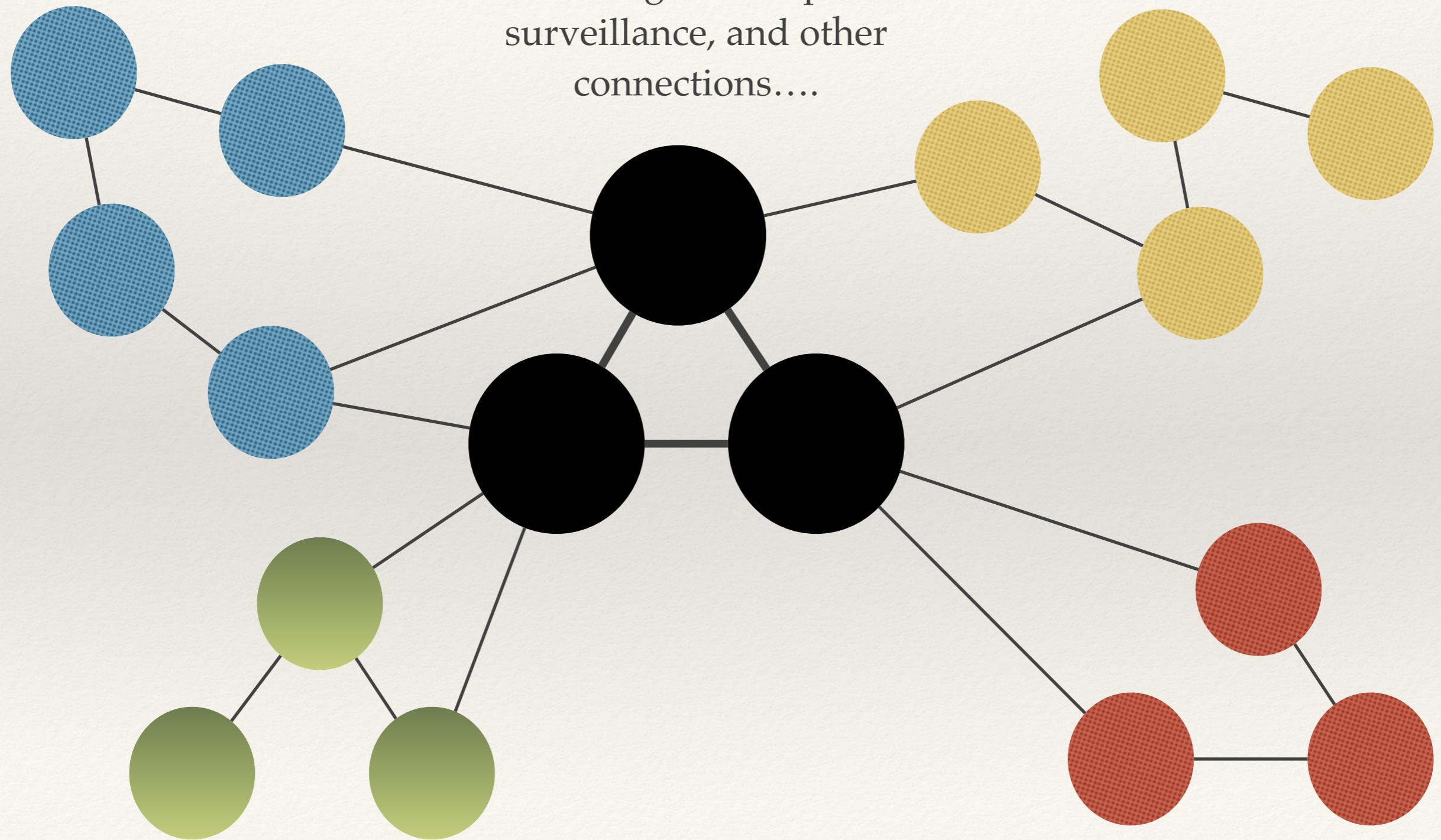


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Through wiretaps,  
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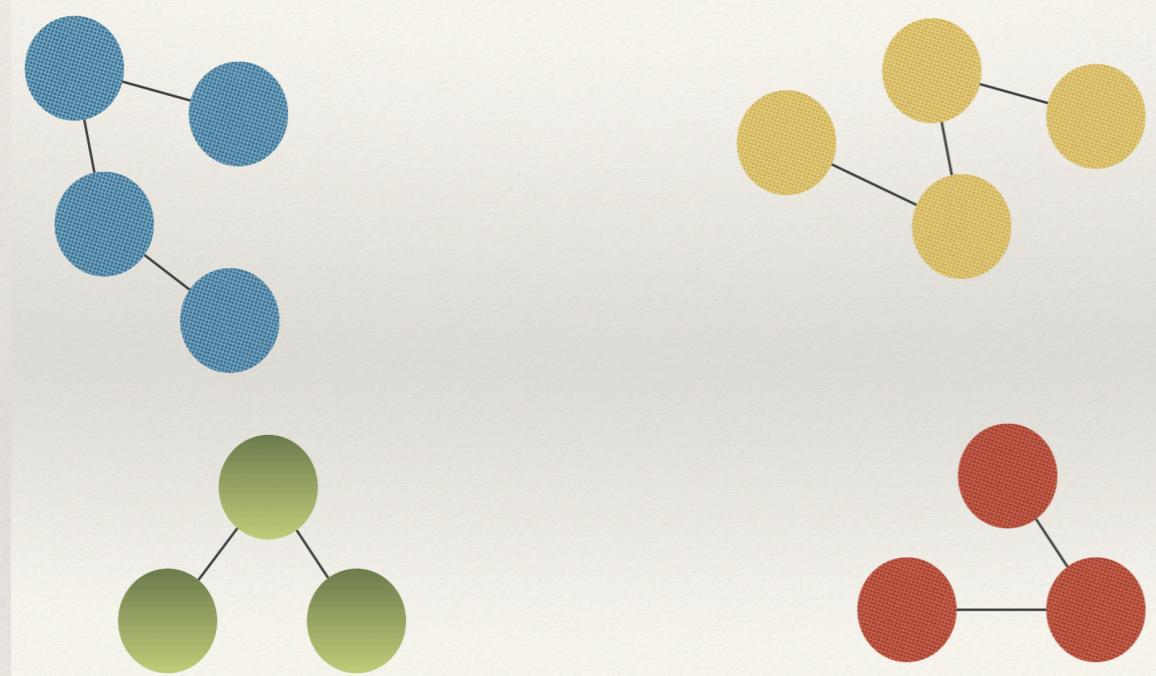
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The **structure of the network**  
influenced what should be done

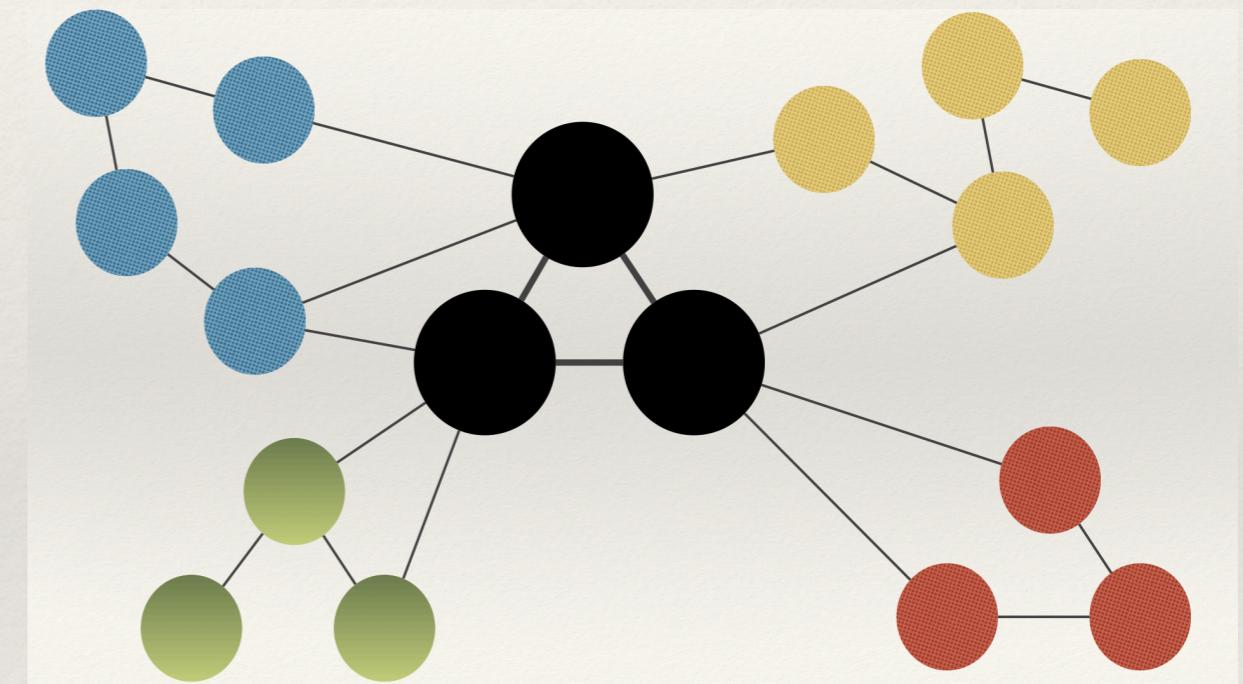
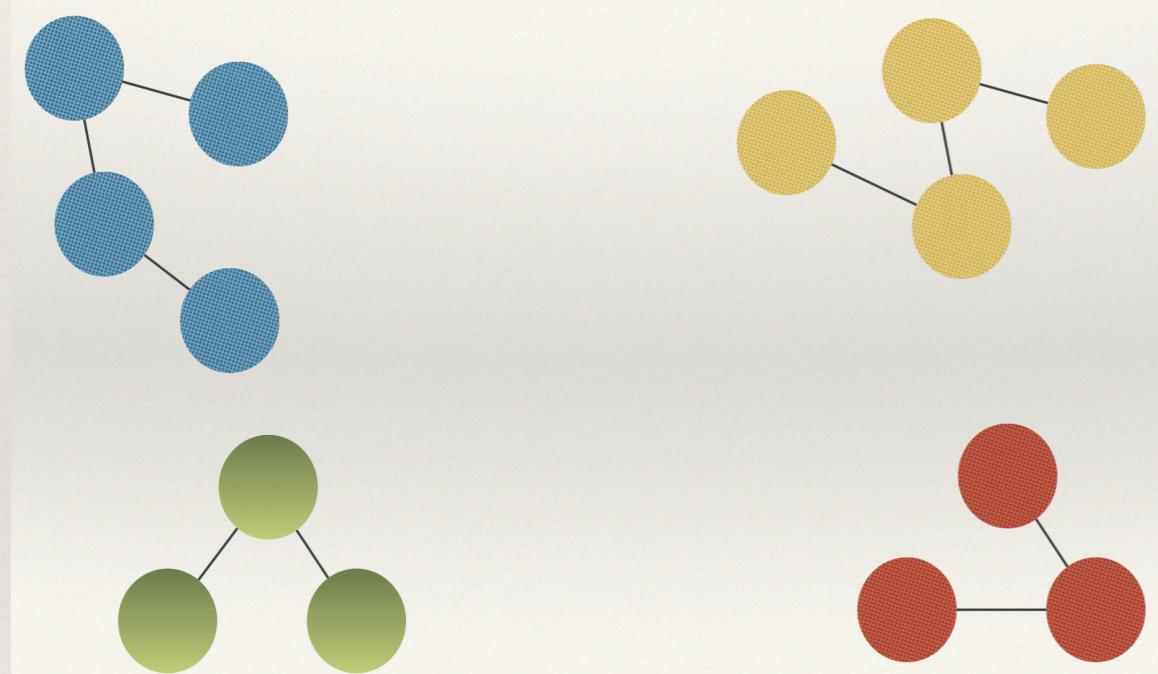
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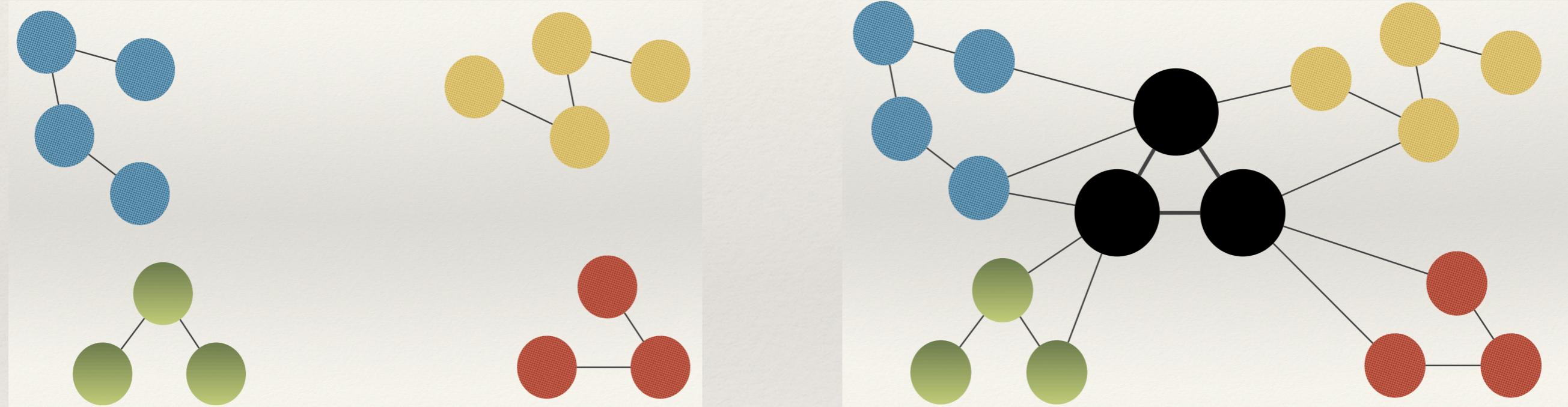
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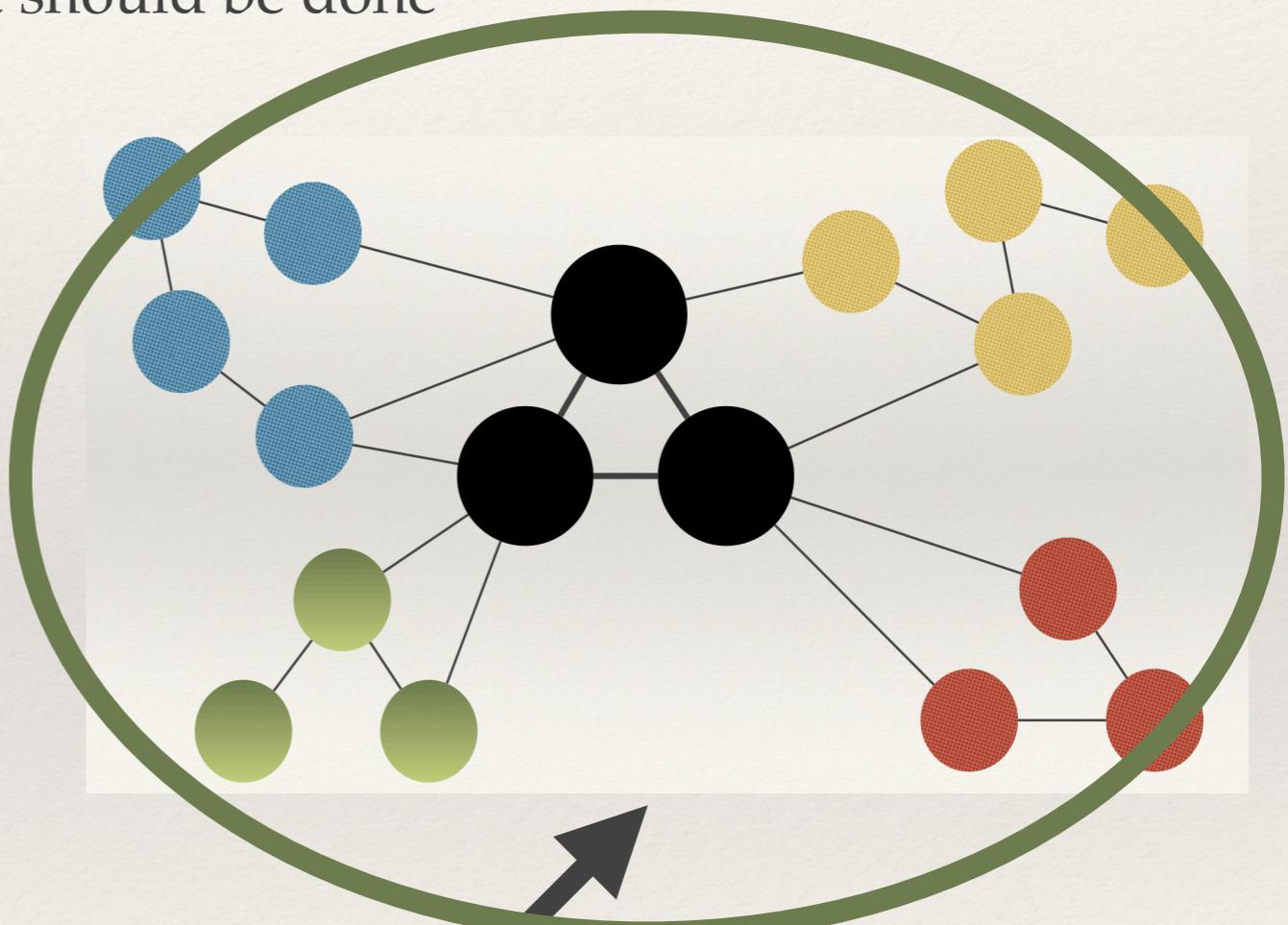
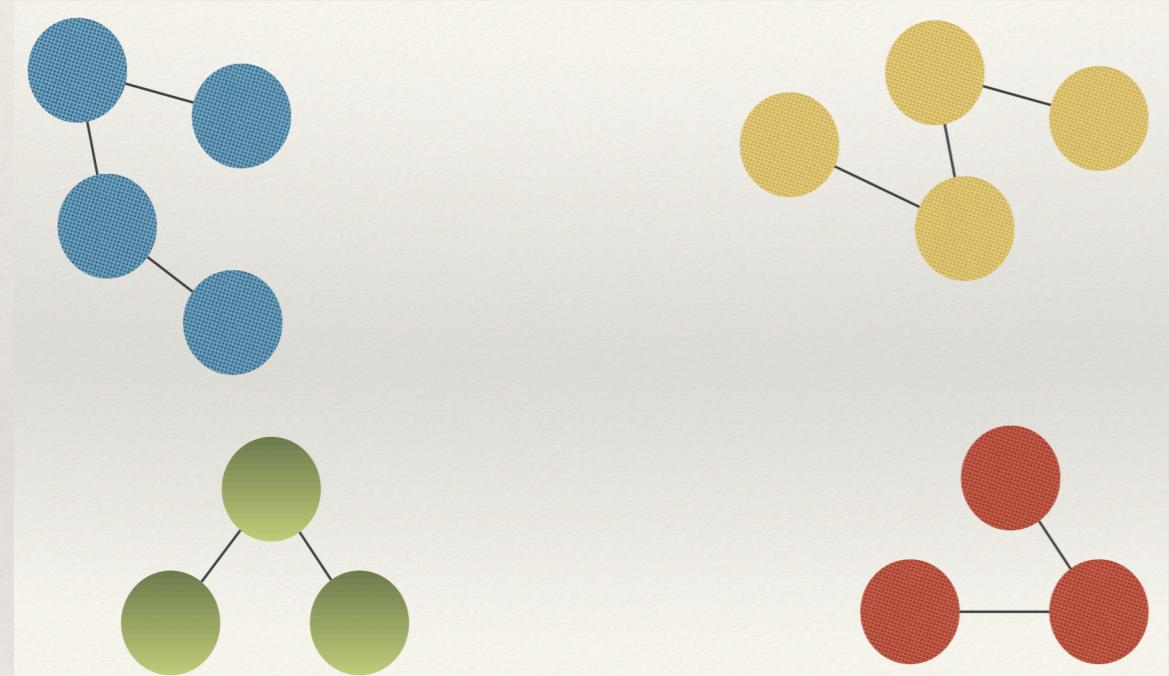
The structure of the network  
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These networks require  
separate approaches

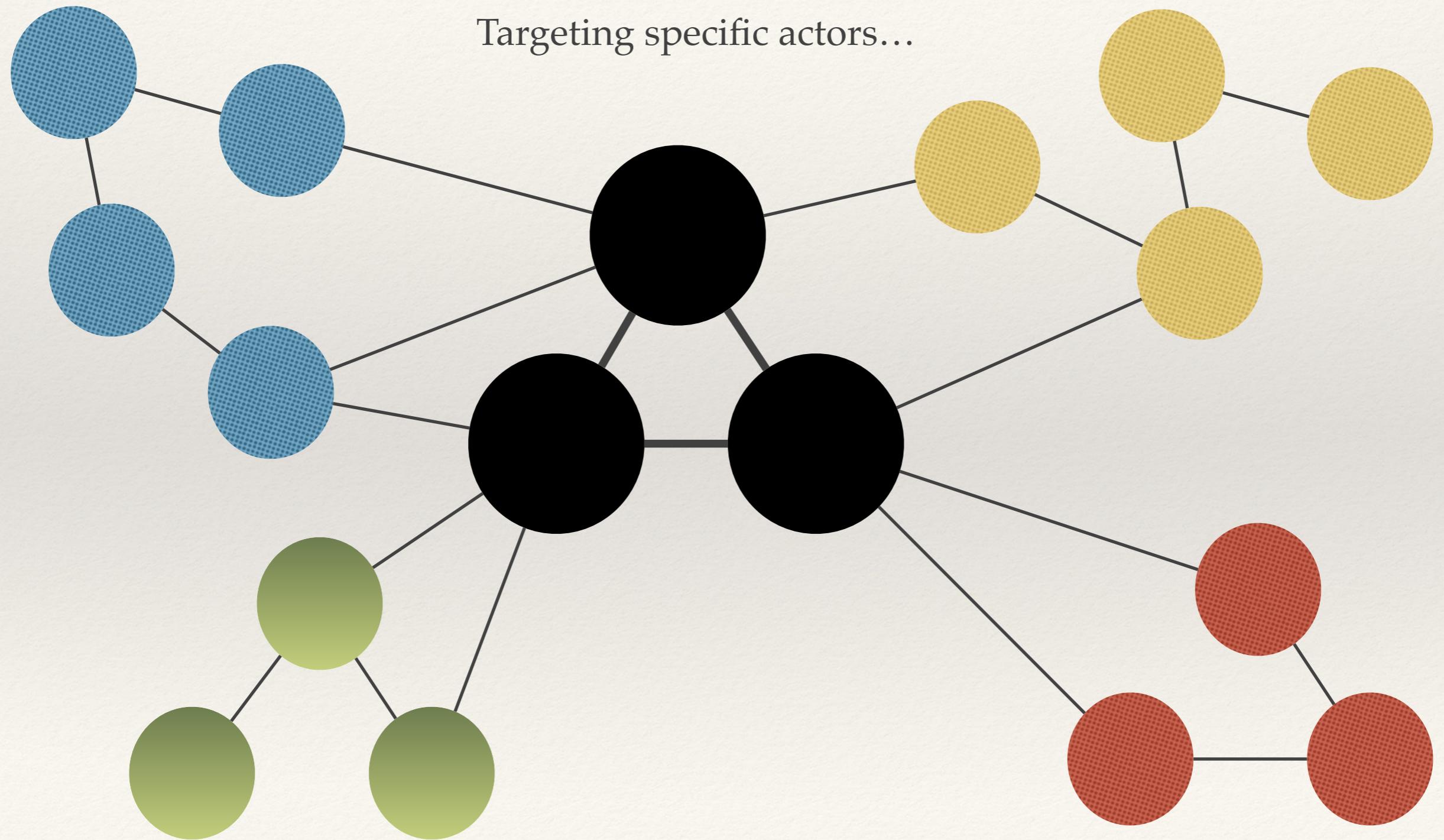
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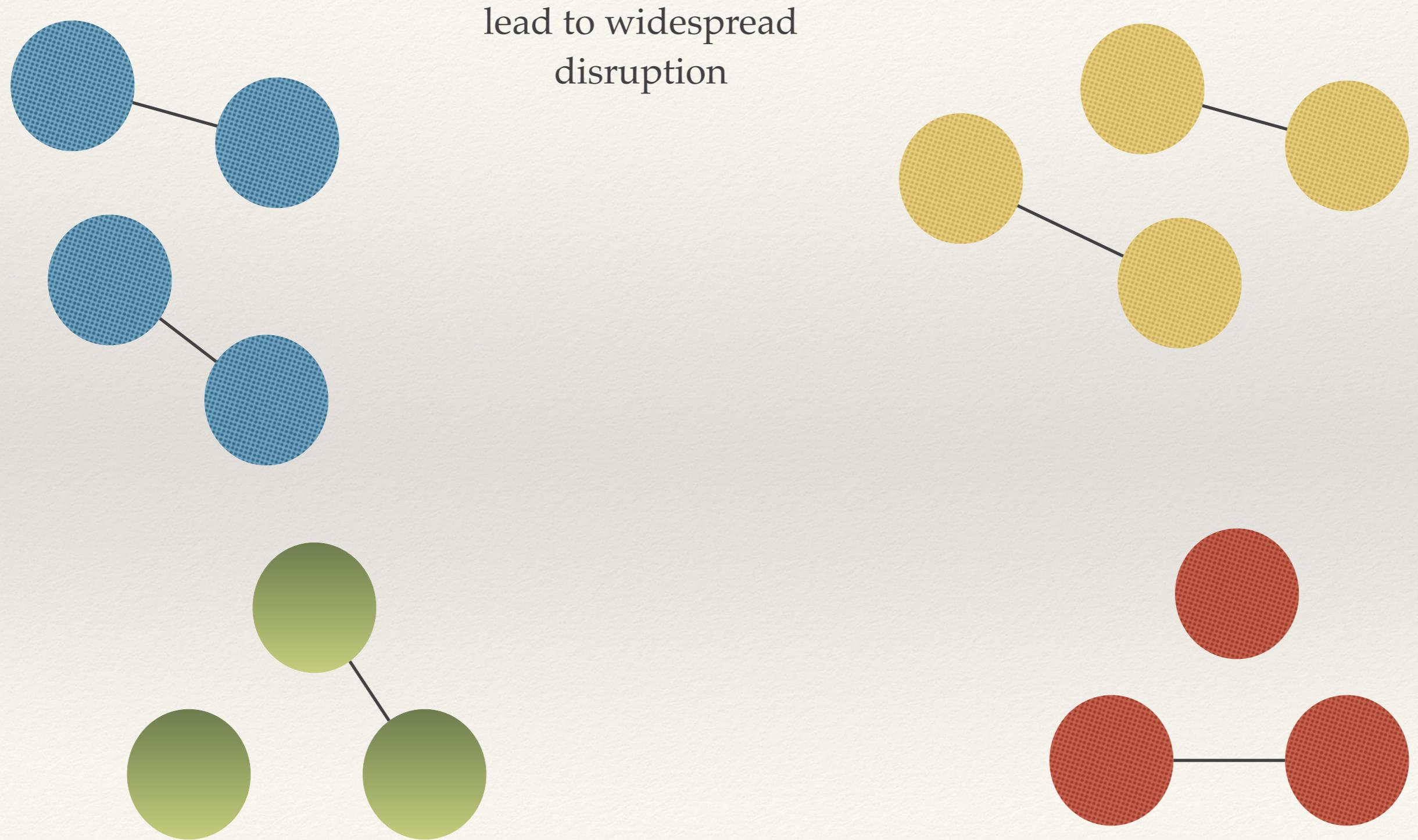


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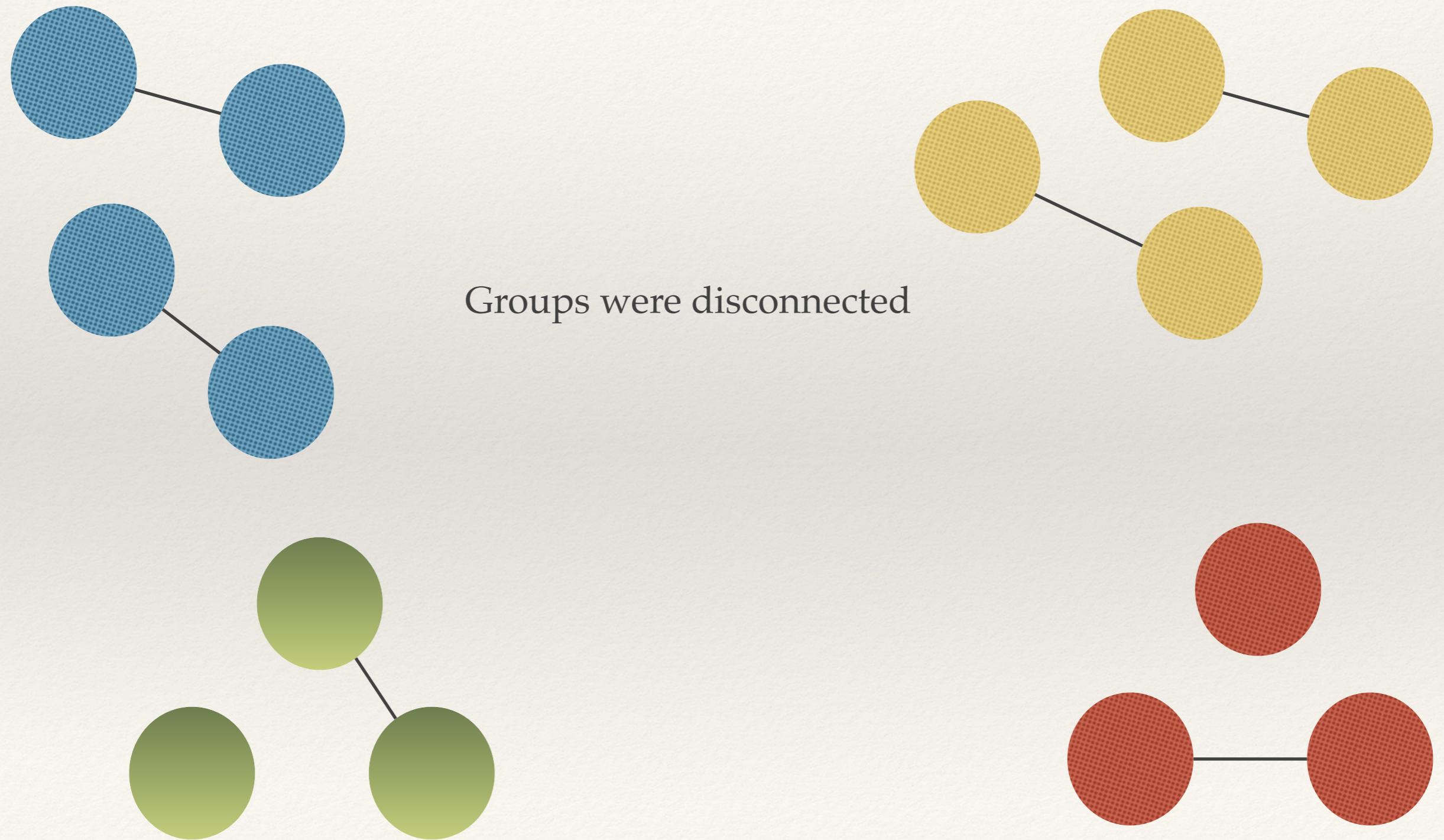
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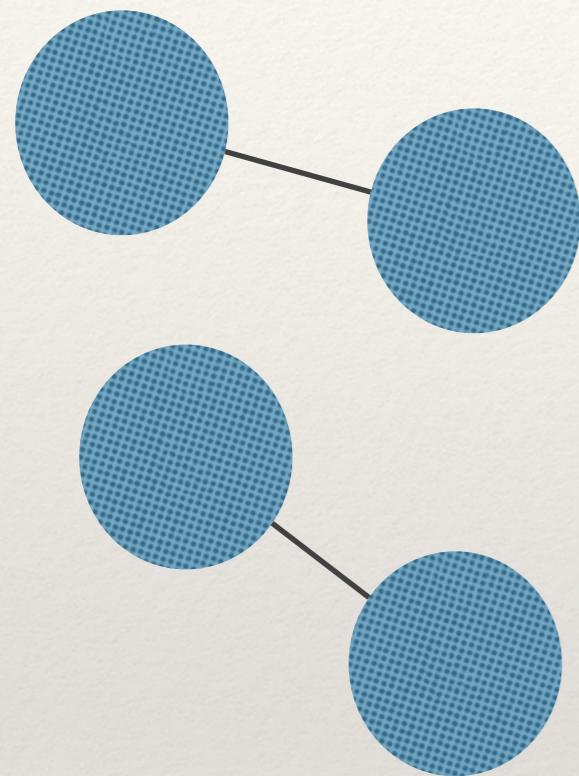
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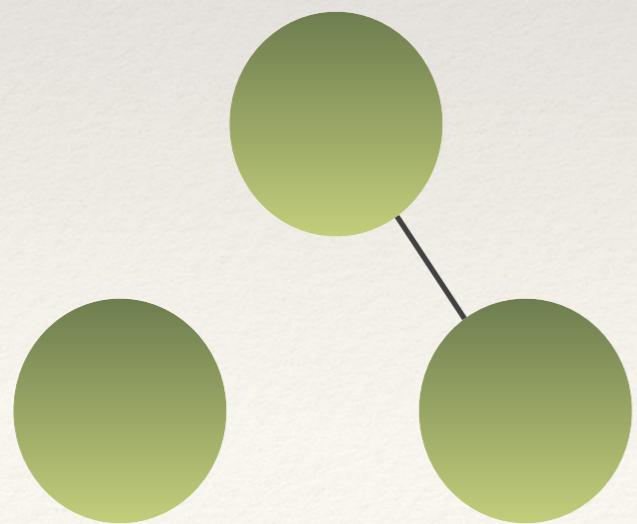
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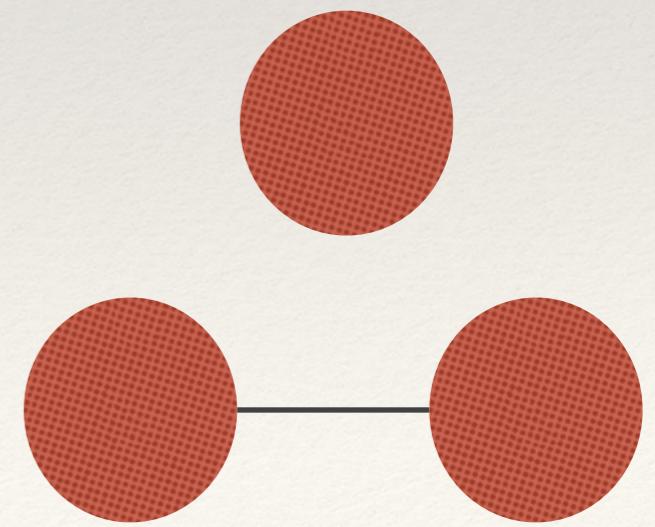
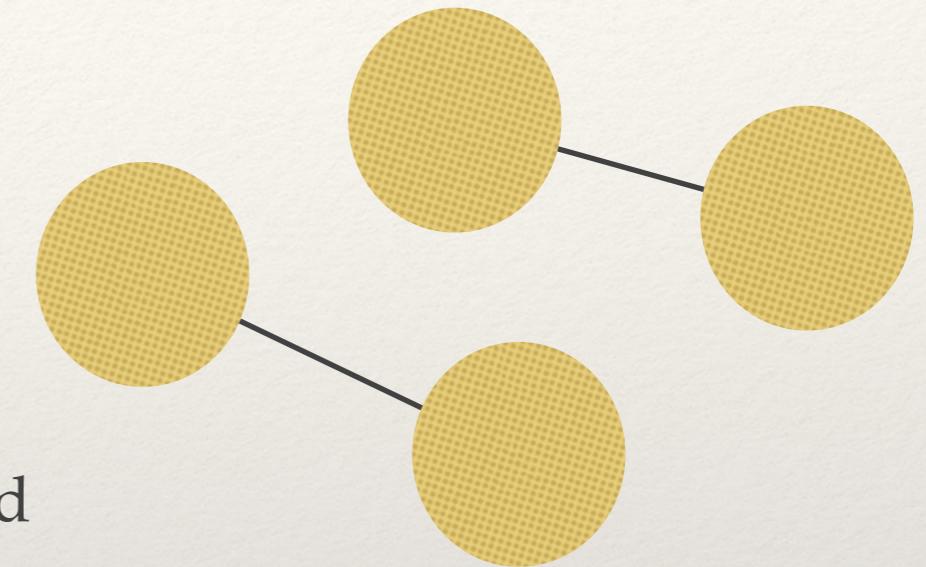
# Example: Criminal Organization in Italy



Groups were disconnected



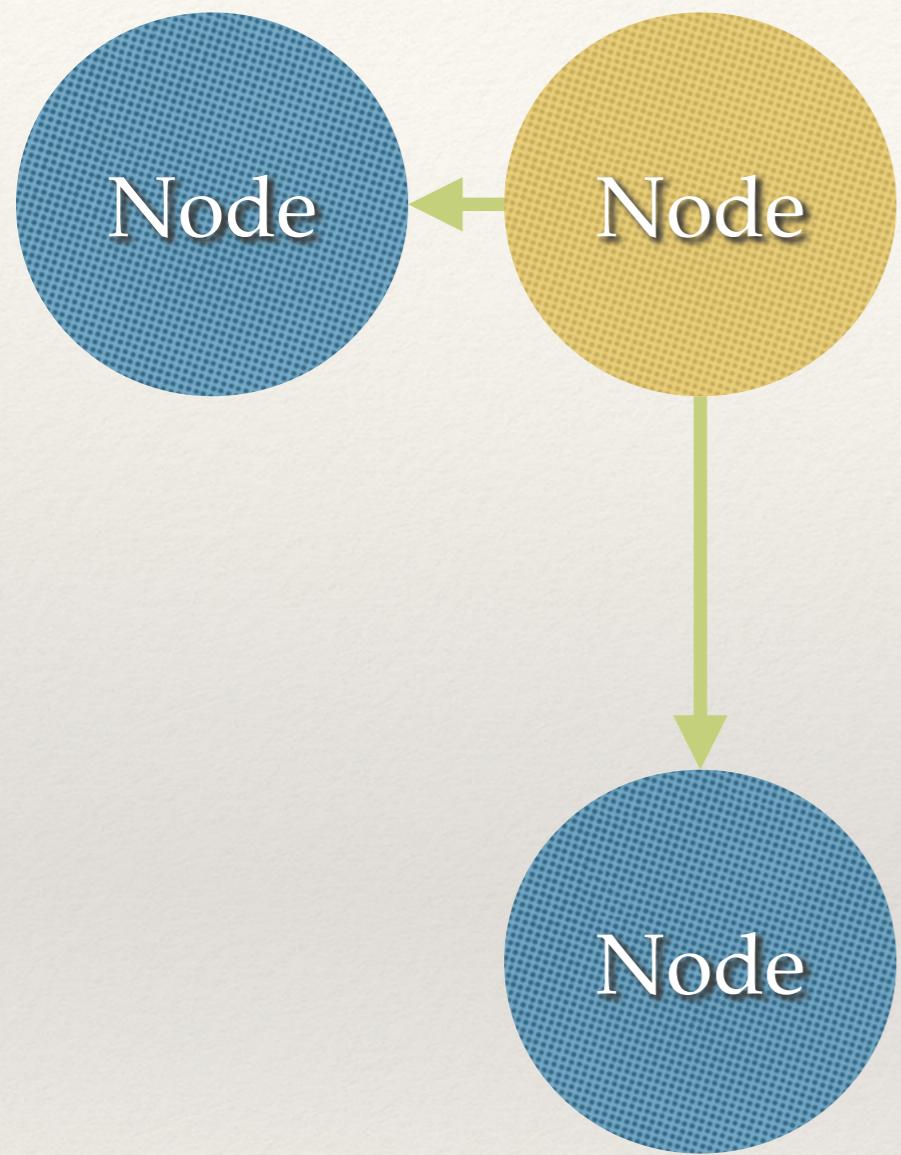
BUT, local activity was also impacted



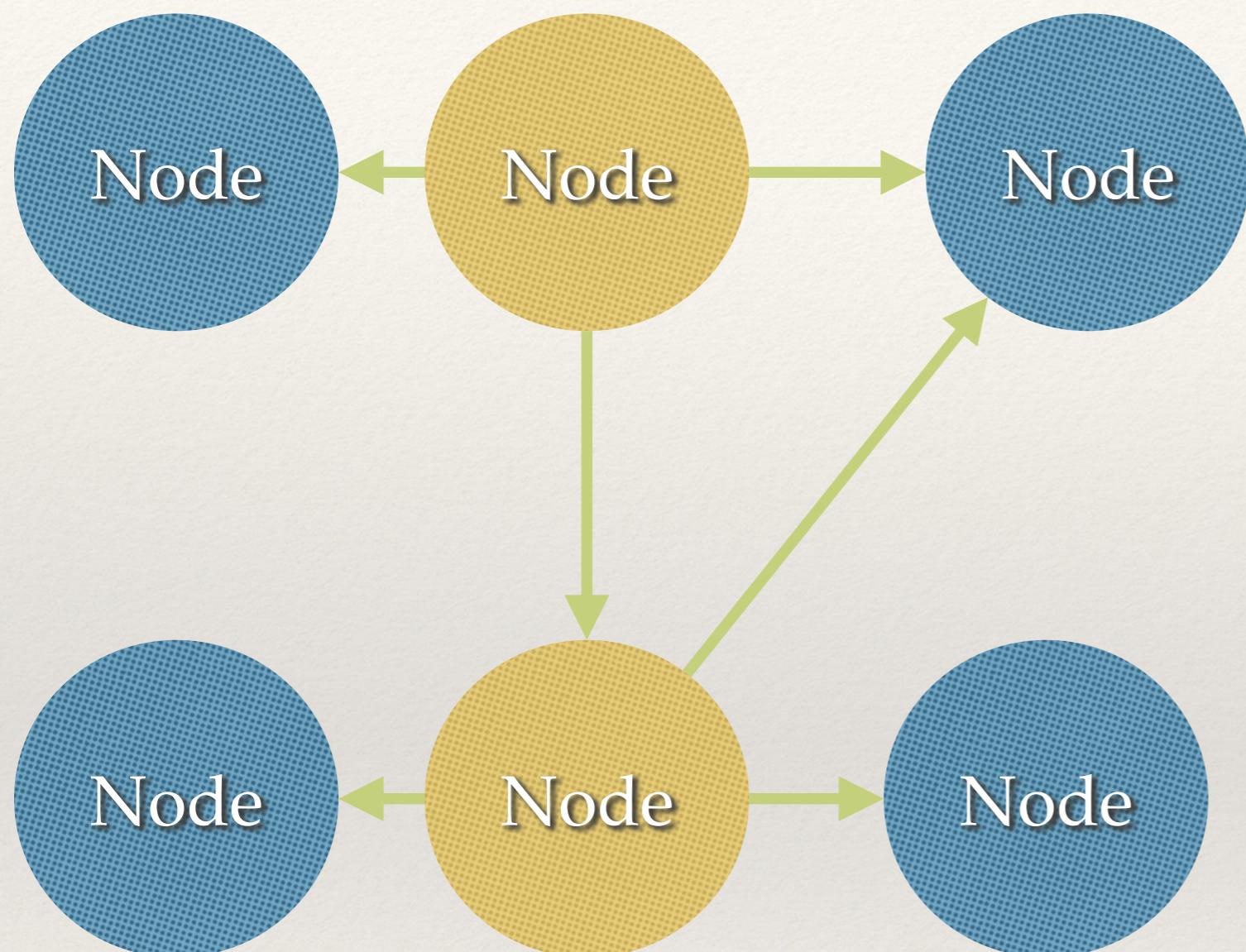
# Addiction as a Network Phenomenon

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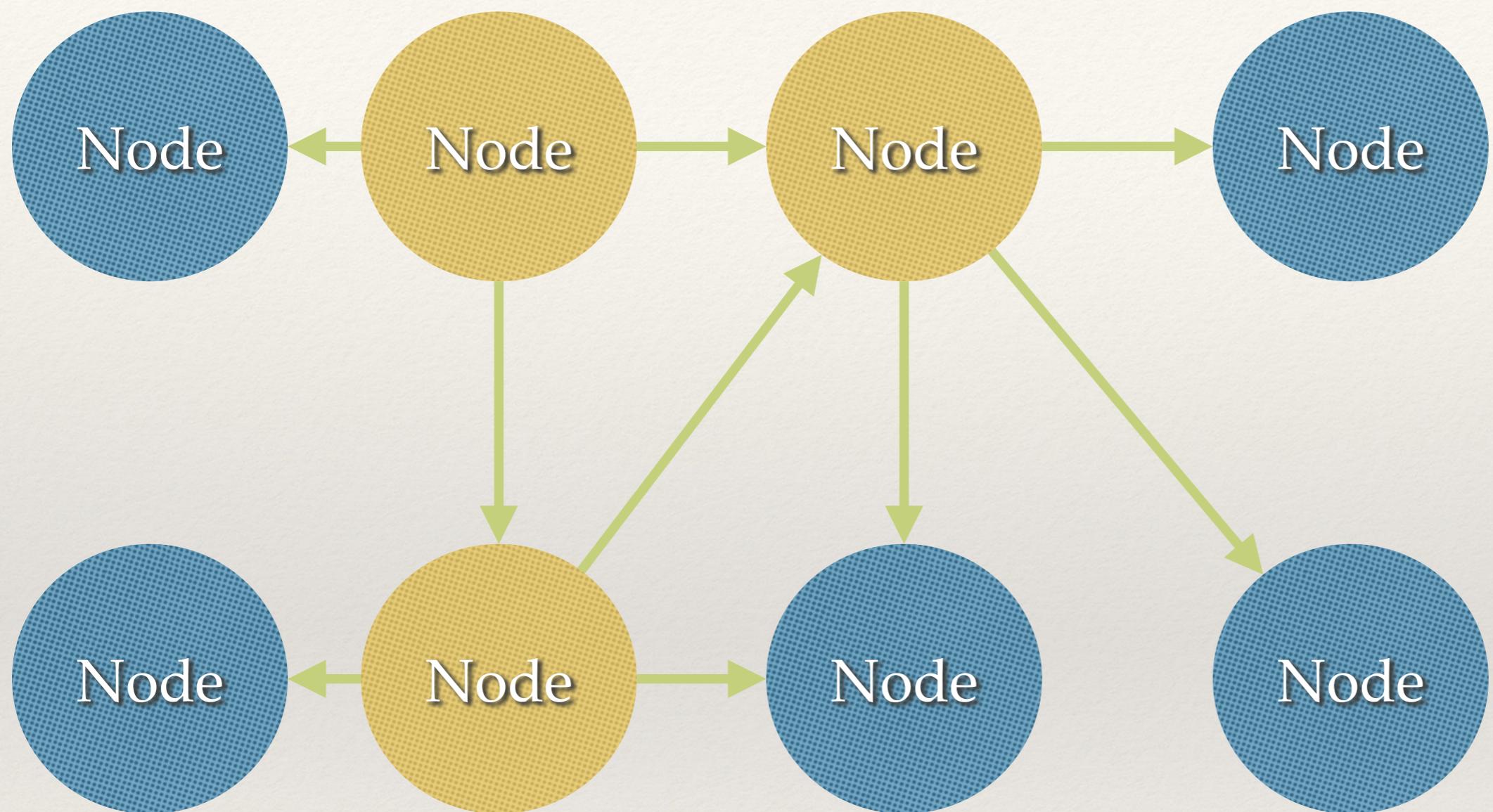
- ❖ How did the widespread abuse of prescription drugs in the United States occur?
  - ❖ Were more people in pain?
  - ❖ Were doctors actively seeking new patients?

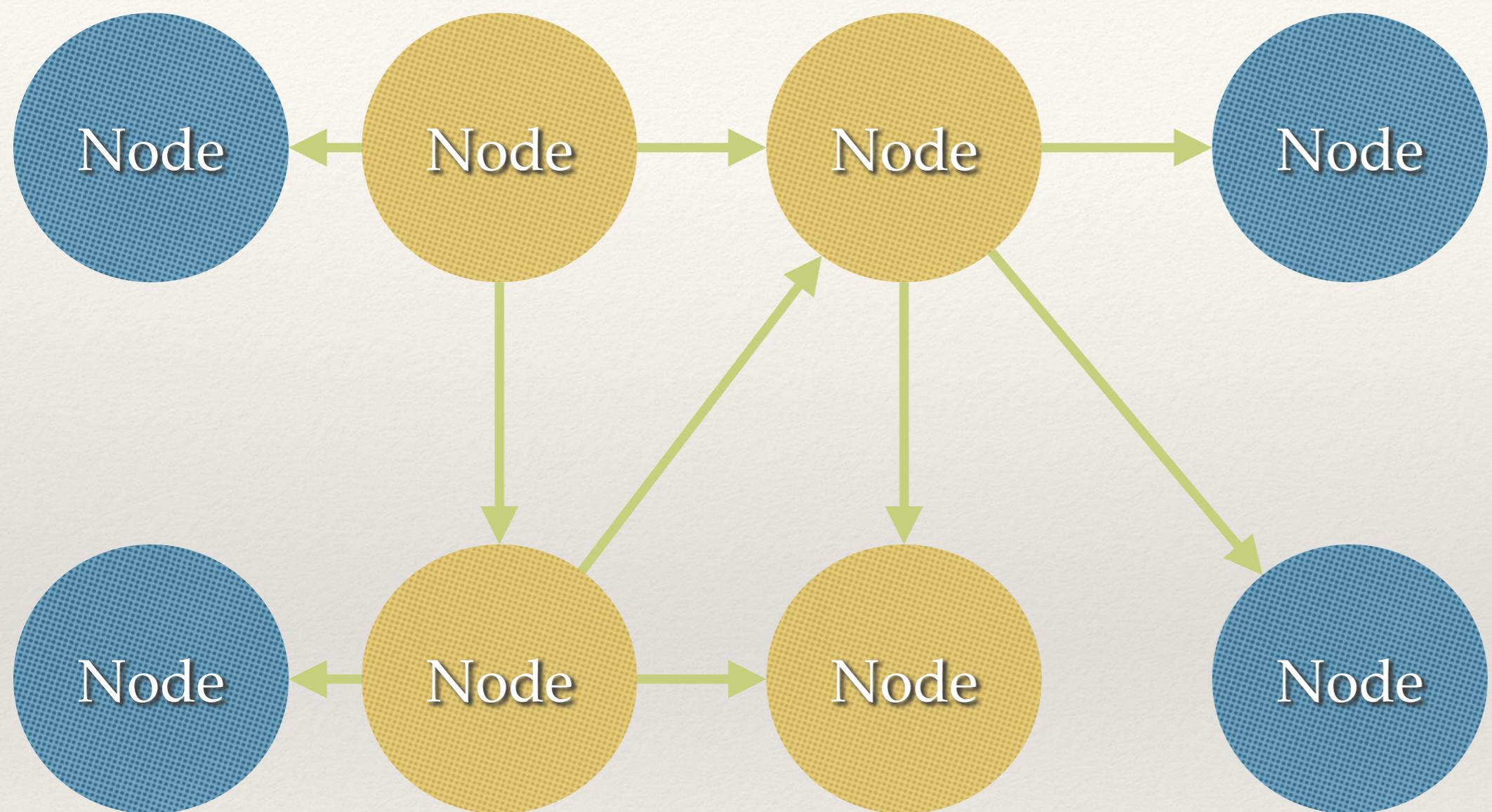


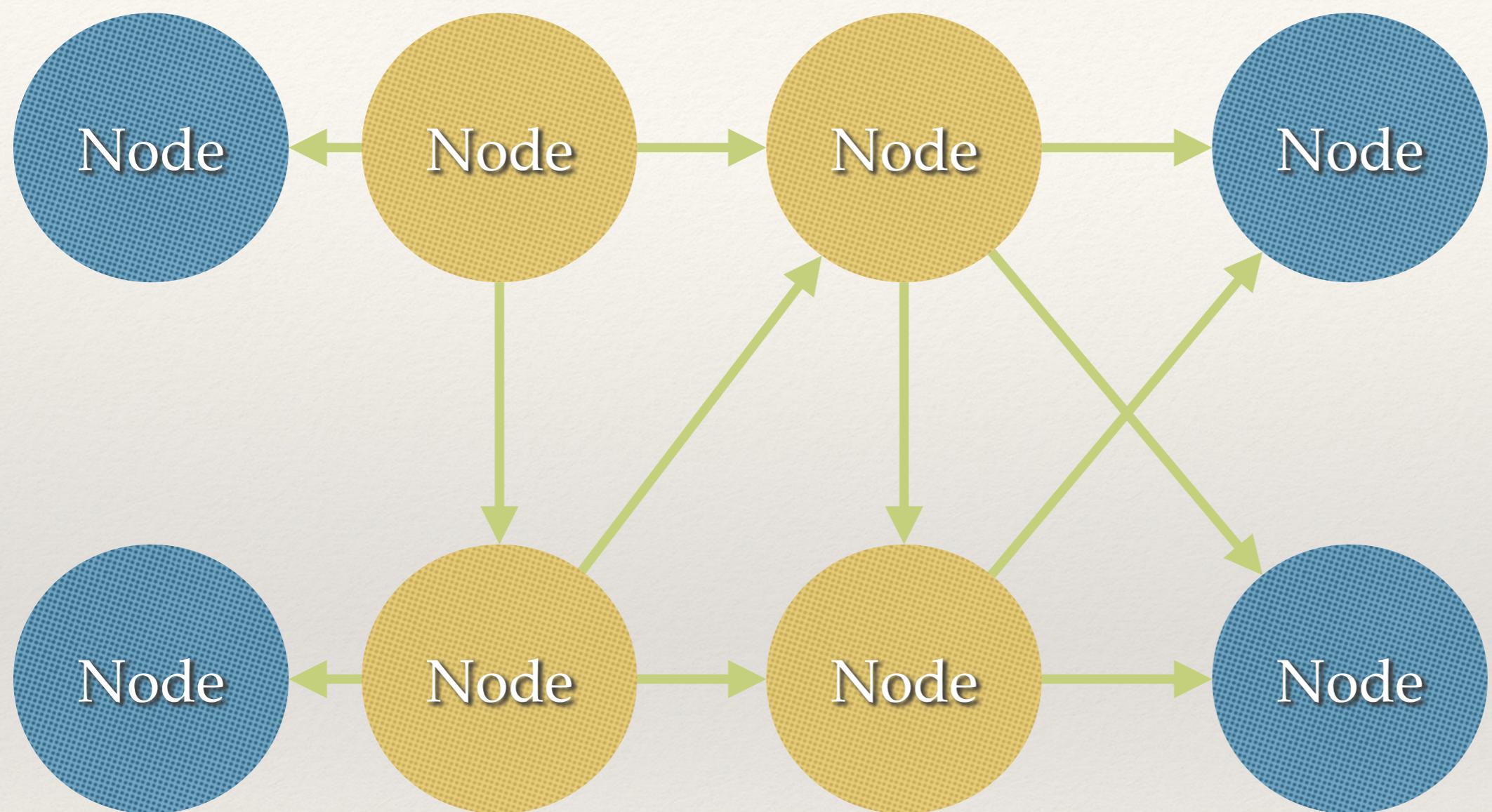
Information about opioids diffused through workplaces, friendships, but also through social media communities

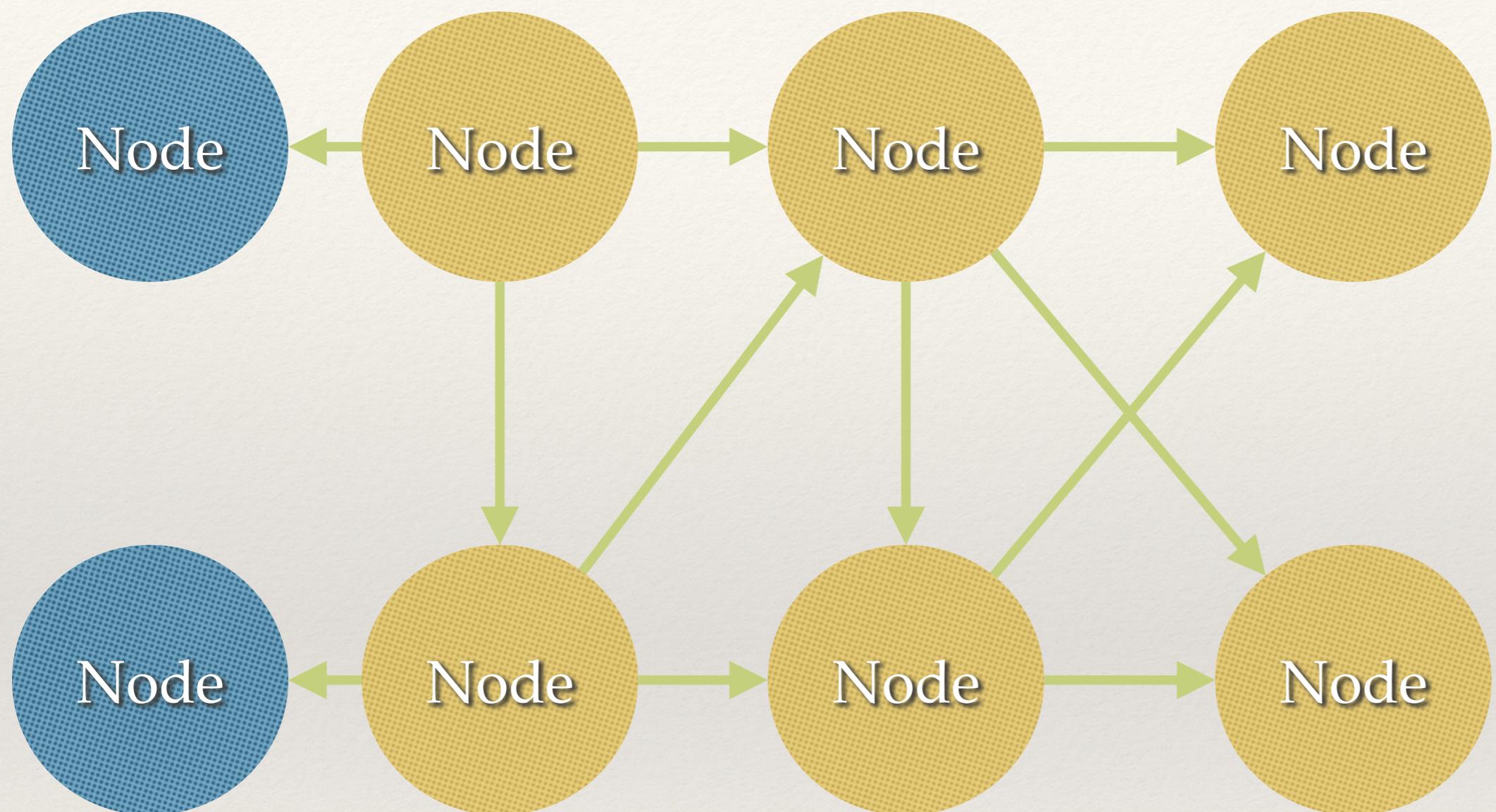


Individuals exposed to this information sought out prescriptions and diffused that information to others

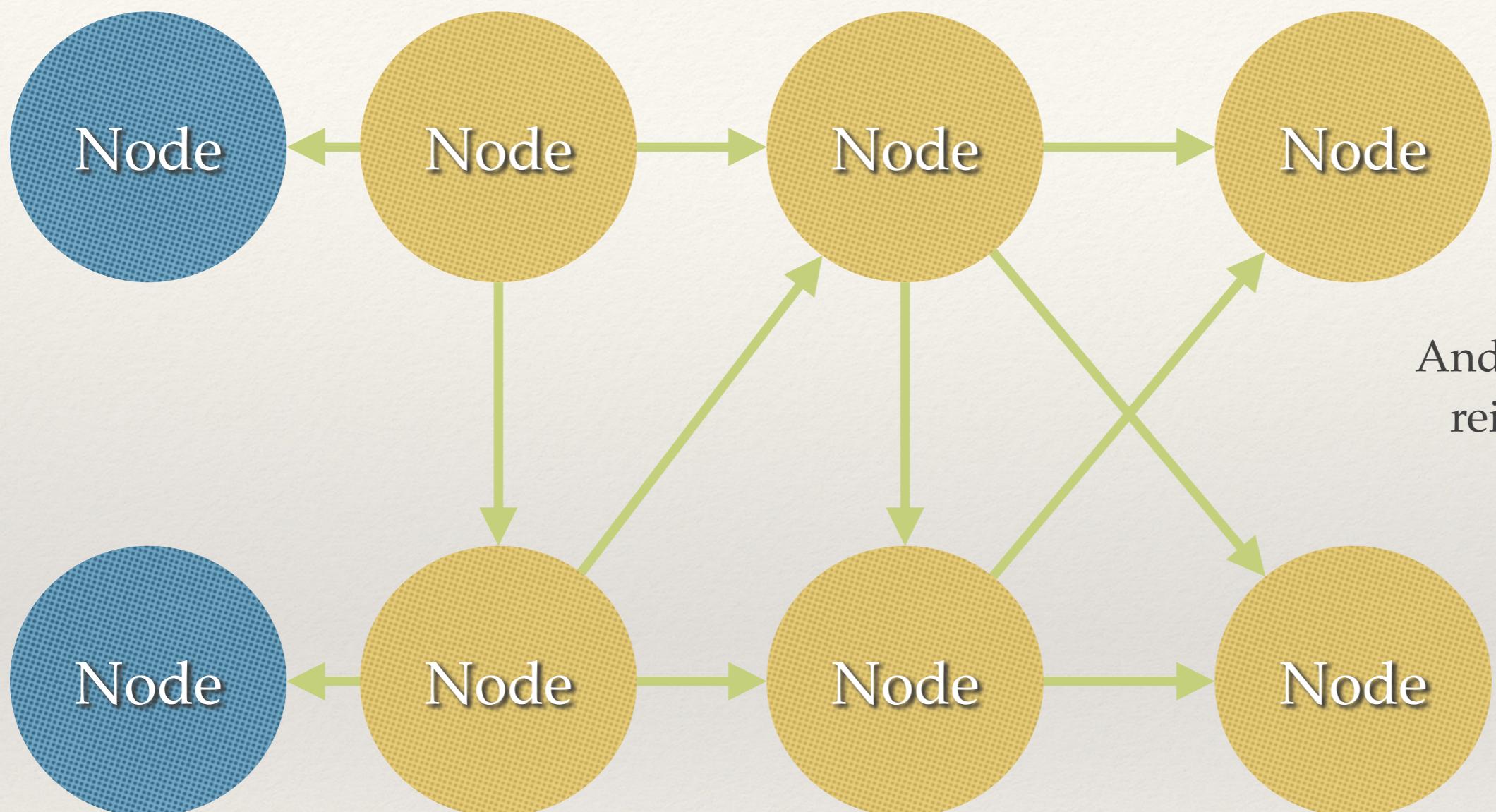








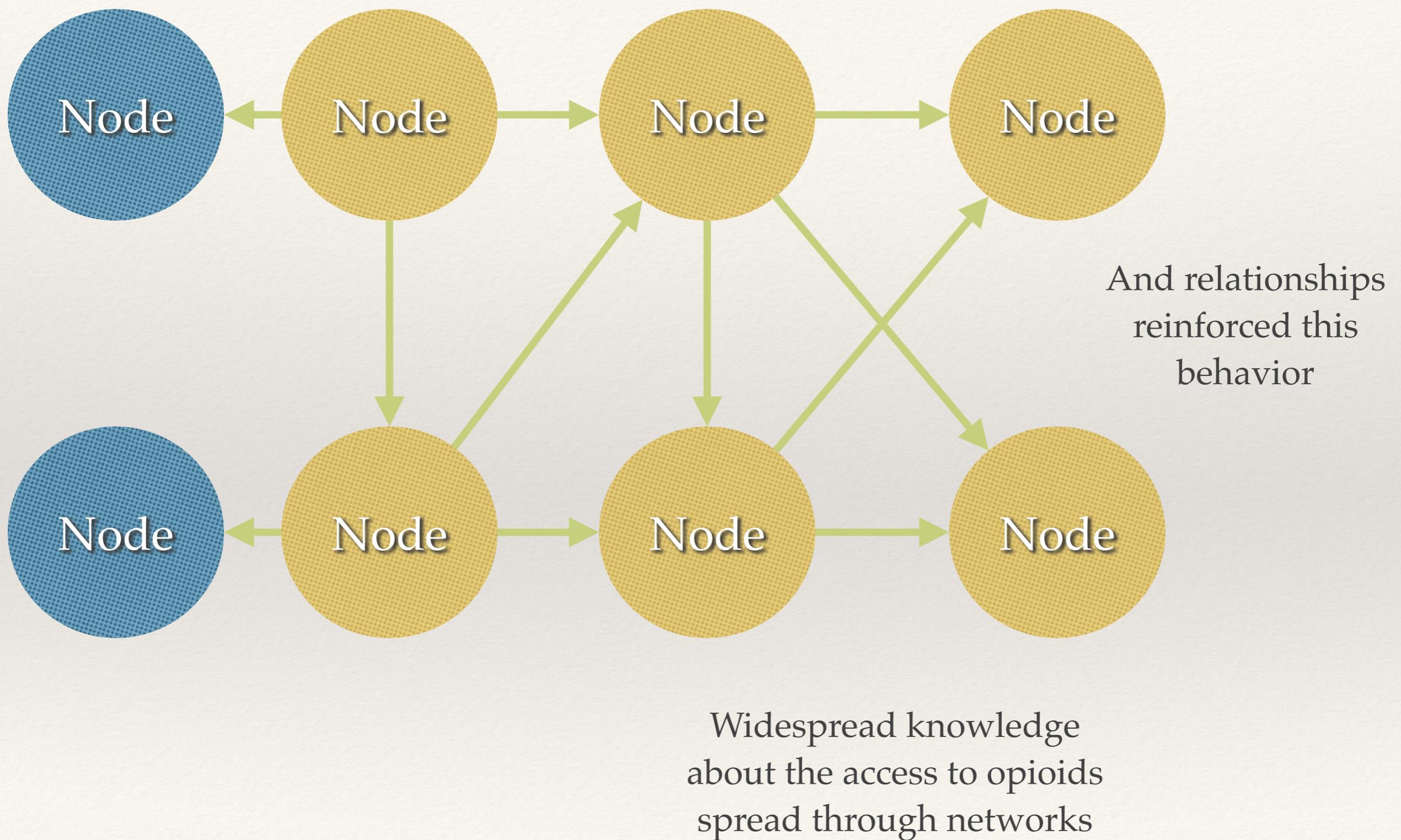
Widespread knowledge  
about the access to opioids  
spread through networks



Widespread knowledge  
about the access to opioids  
spread through networks

And relationships  
reinforced this  
behavior

Where that behavior  
was not reinforced,  
there was less use



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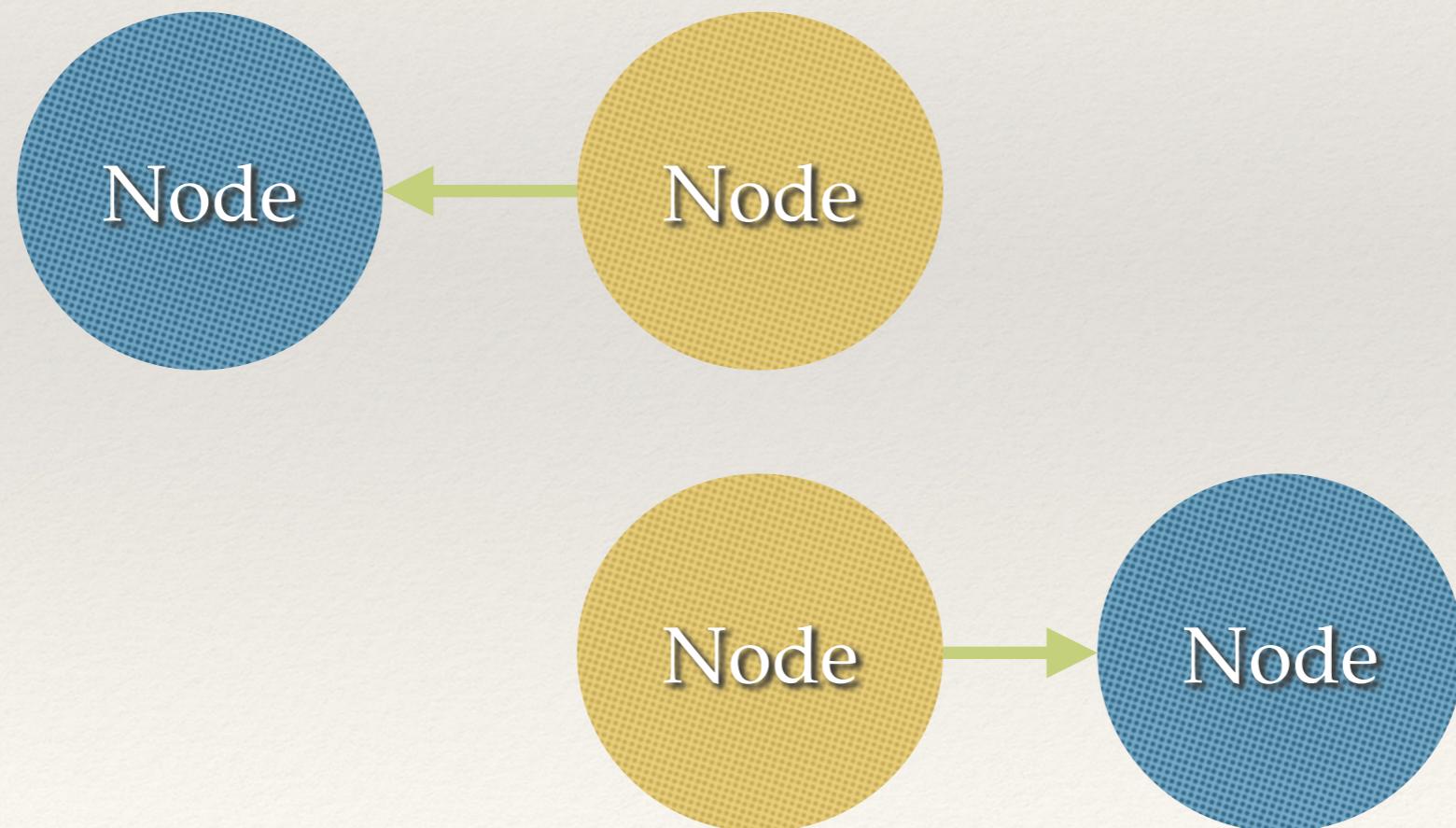
# Example: Focused Deterrence

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Focused deterrence is built on  
the idea that information can  
be diffused through networks

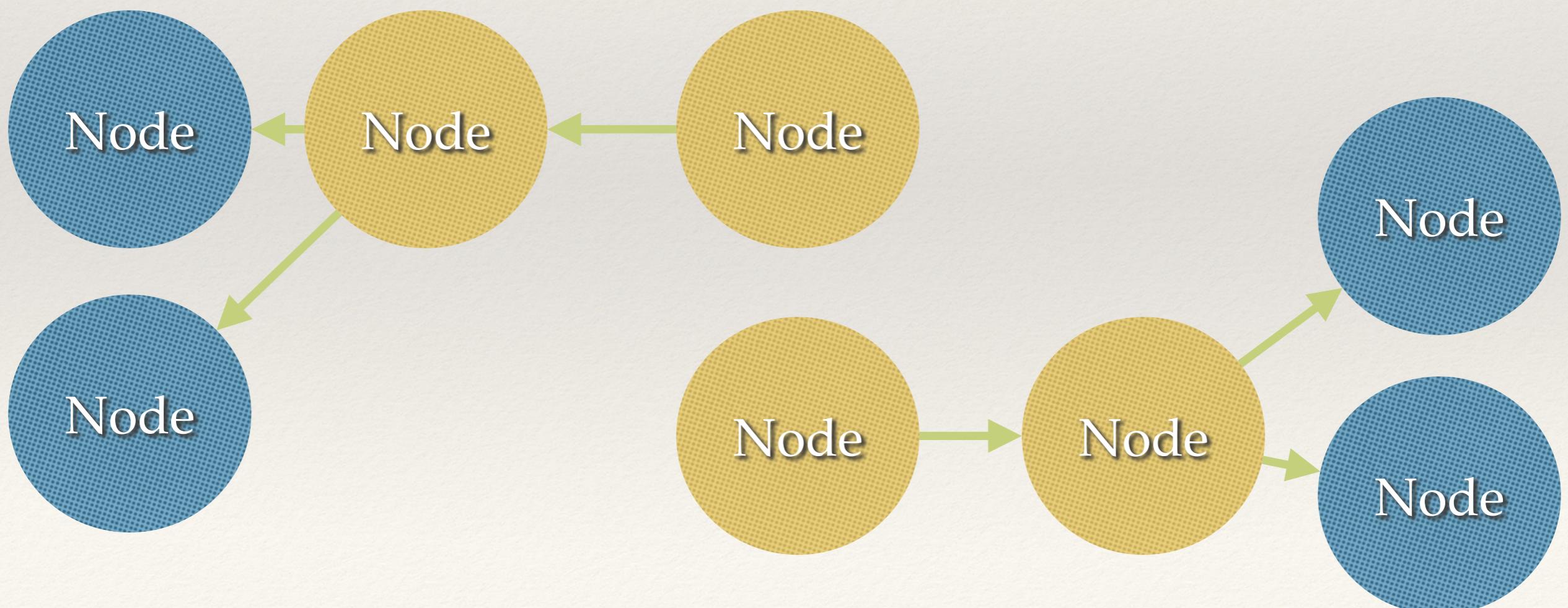
# Example: Focused Deterrence

Focused deterrence is built on the idea that information can be diffused through networks

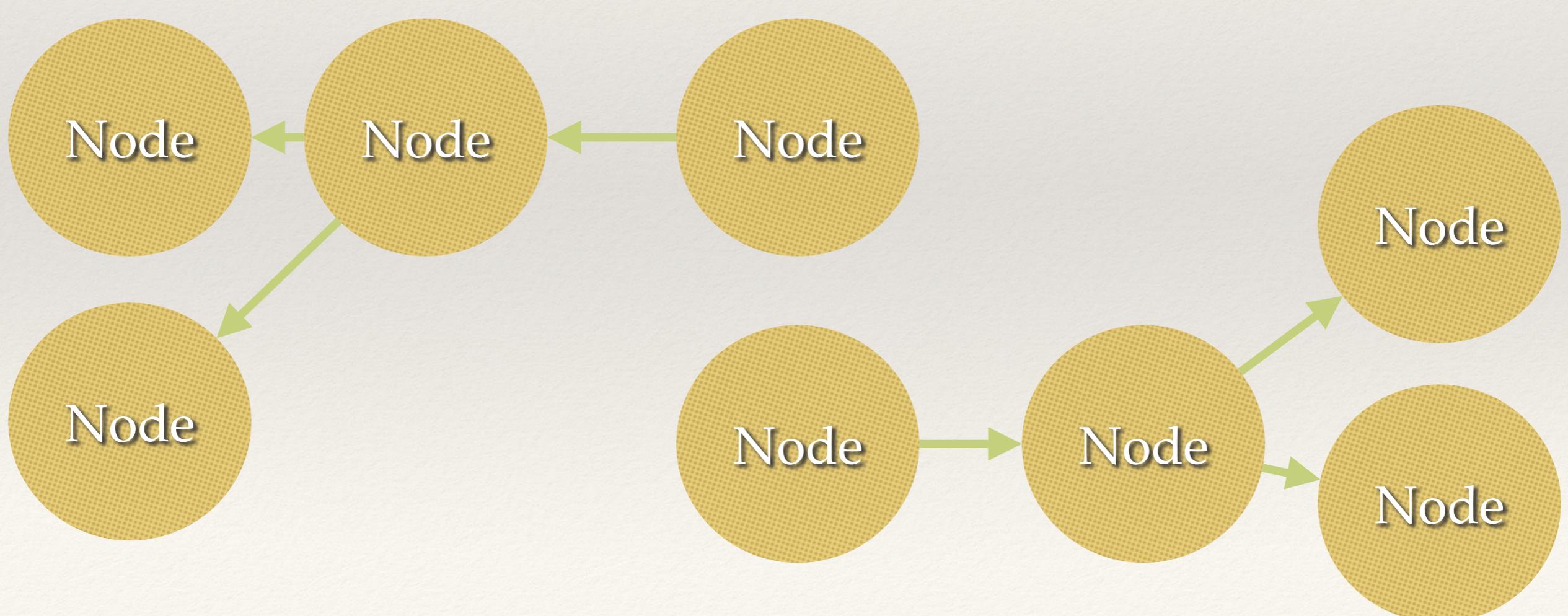


# Example: Focused Deterrence

Nodes spread information  
about a program  
throughout the network



# Example: Focused Deterrence



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# Why Networks Matters

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- ❖ Criminal justice agencies often face situations that involve networks.
- ❖ By leveraging the tools of network analysis, agencies can gain new insights and develop novel approaches and solutions.

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# Network Science Applications

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- ❖ **Youth Justice Workers and Probation:** uncovering hidden links
- ❖ **Law Enforcement:** Targeting influential individuals
- ❖ **Agency Management:** Identify those who may benefit most from intervention
- ❖ **Prisons:** Anticipating potential escalation among conflicting groups
- ❖ **Crime Prevention:** Enhance intelligence gathering, build trust, cooperation, and support from community

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# Exercise

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- ❖ In your groups, do the following:
  - ❖ Think about an agency problem (remember discussing those?) and how a network perspective may help solve that problem.

# Thank you!

# Questions?

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