

# Normothermic Regional Perfusion (NRP)

Maximizing lives saved through donation after circulatory death (DCD)

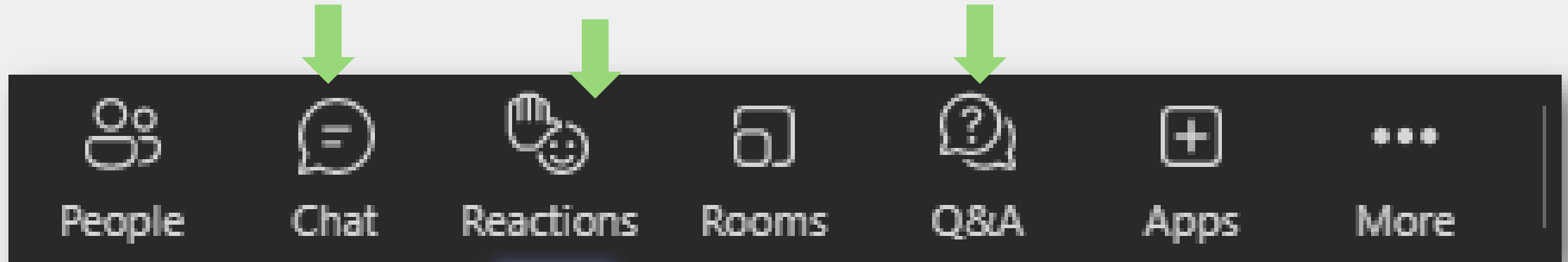
Donor Network of Arizona

**PJ Geraghty, VP of Clinical Services**

**Chat with  
participants**

**Add a reaction or  
raise your hand**

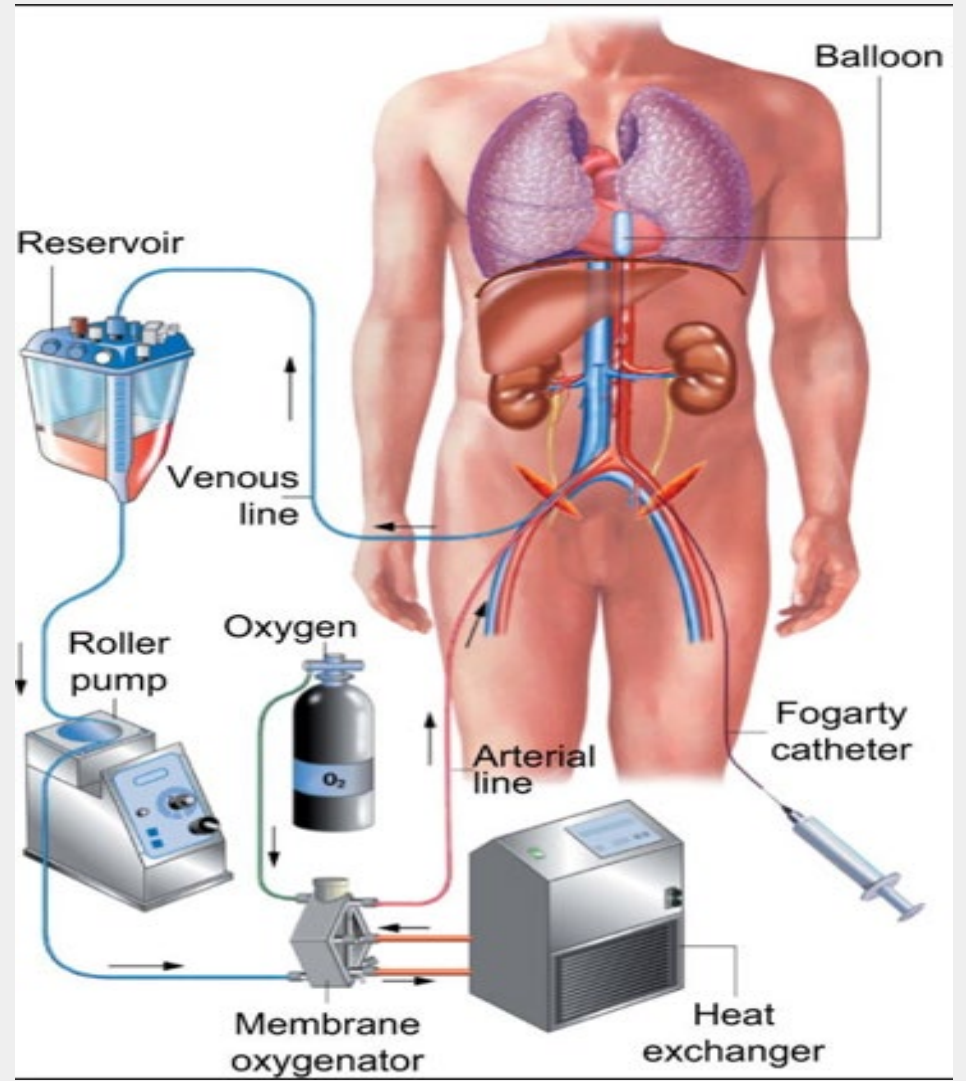
**Ask a question**



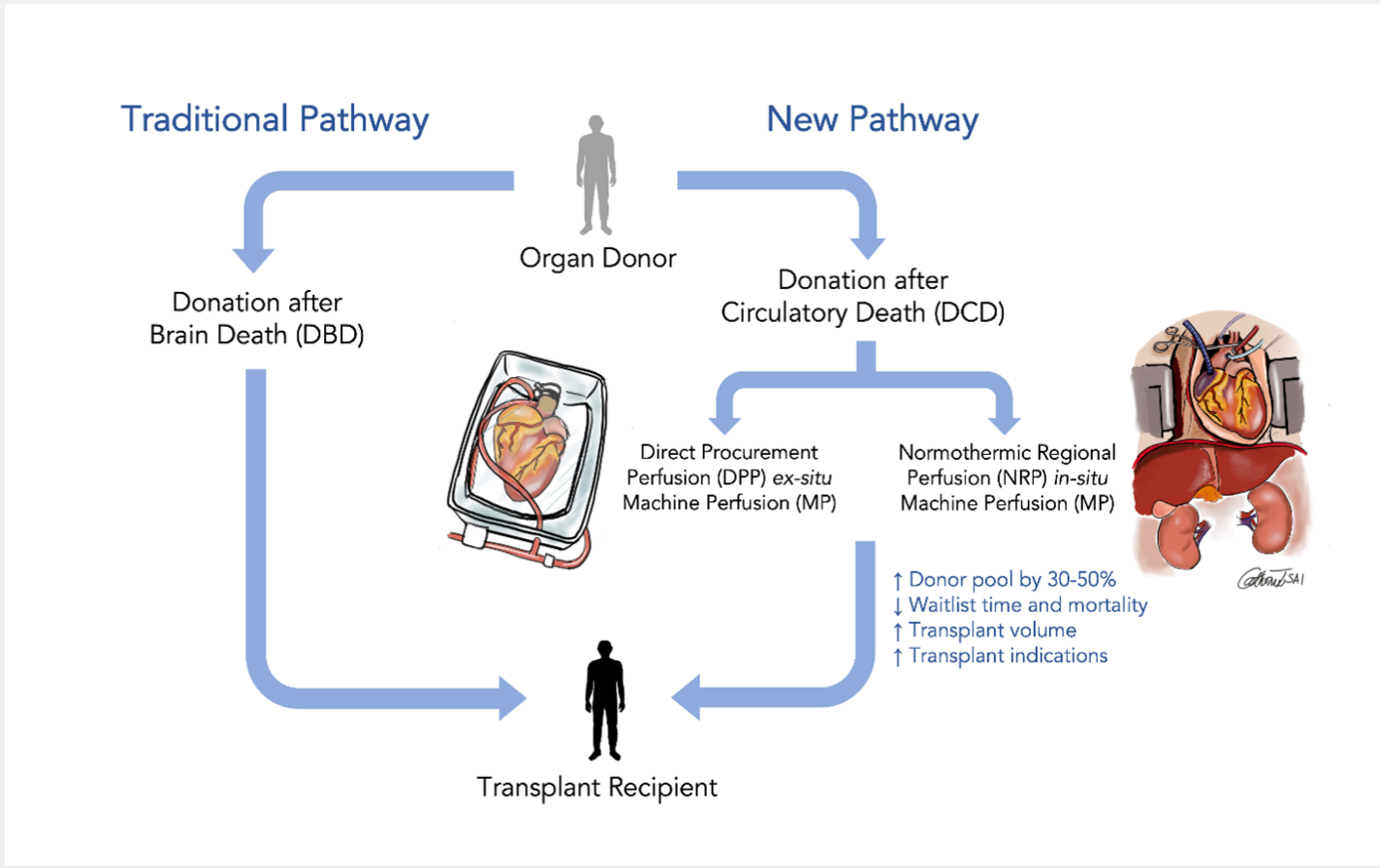
**Please add questions or comments at any time.  
Questions will be addressed at the end of the webinar.**

# What is NRP?

- In-situ perfusion of organs to decrease ischemic damage.
- Occurs in Donation after Circulatory Death (DCD)
  - After declaration of death:
    - Donor placed on regional machine perfusion
    - Measures taken to occlude great vessels
    - Allows more time to assess organ function intraoperatively
    - Better outcomes in recipients



<p><b>DCD Without NRP</b></p>	<ul style="list-style-type: none"> <li>• <b>Withdrawal</b></li> <li>• <b>Declaration of death</b></li> <li>• <b>Patient transfer to OR</b></li> <li>• <b>Recovery</b></li> </ul>
<p><b>VS</b></p>	
<p><b>DCD With NRP</b></p>	<ul style="list-style-type: none"> <li>• <b>Withdrawal</b></li> <li>• <b>Declaration of death</b></li> <li>• <b>Patient transfer to OR</b></li> <li>• <b>NRP started</b></li> <li>• <b>Proceed with recovery</b></li> </ul>



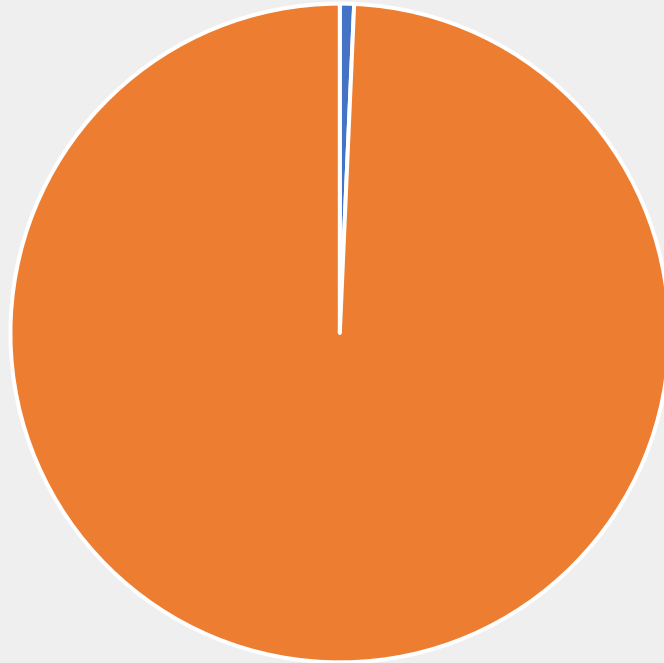
# Maximizing the Gift

- Currently:
  - ~10,000 people waiting for livers
  - ~90,000 waiting for kidneys
- Only 27% of DCD livers are used
  - If we increased utilization to **40%**, there would be **485** additional lives saved.
  - If we increased utilization to **85%**, there would be **2,500** additional lives saved.
- Donors and donor families want as many lives saved as possible

# What's the impact?

Measuring generosity

# Donation after circulatory death: Heart transplants



Year Range	Heart Transplants
1994-2019	12
2020-Present	1,715

Organ Procurement Transplantation Network. (2024, May 31).  
<https://optn.transplant.hrsa.gov/data>

■ 1994-2019 ■ 2020-Present

# Donation after circulatory death: Liver transplants



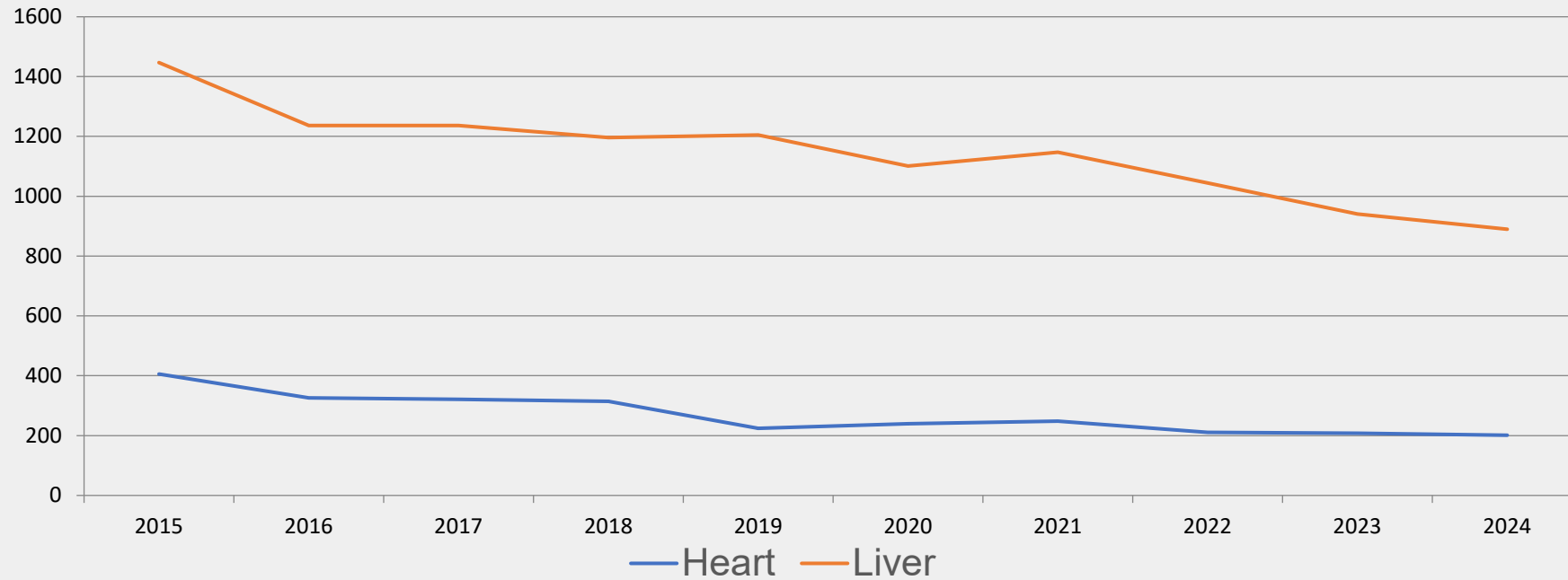
■ 1994-2018 ■ 2019-Present

Year Range	Liver Transplants
1994-2018	7,674
2019-Present	8,533

Organ Procurement Transplantation Network. (2024, May 31).  
<https://optn.transplant.hrsa.gov/data>



# Deaths on the waiting list



Organ Procurement Transplantation Network. (2024, May 31). <https://optn.transplant.hrsa.gov/data>

# Historic concerns: DCD hearts

**Organ Damage**

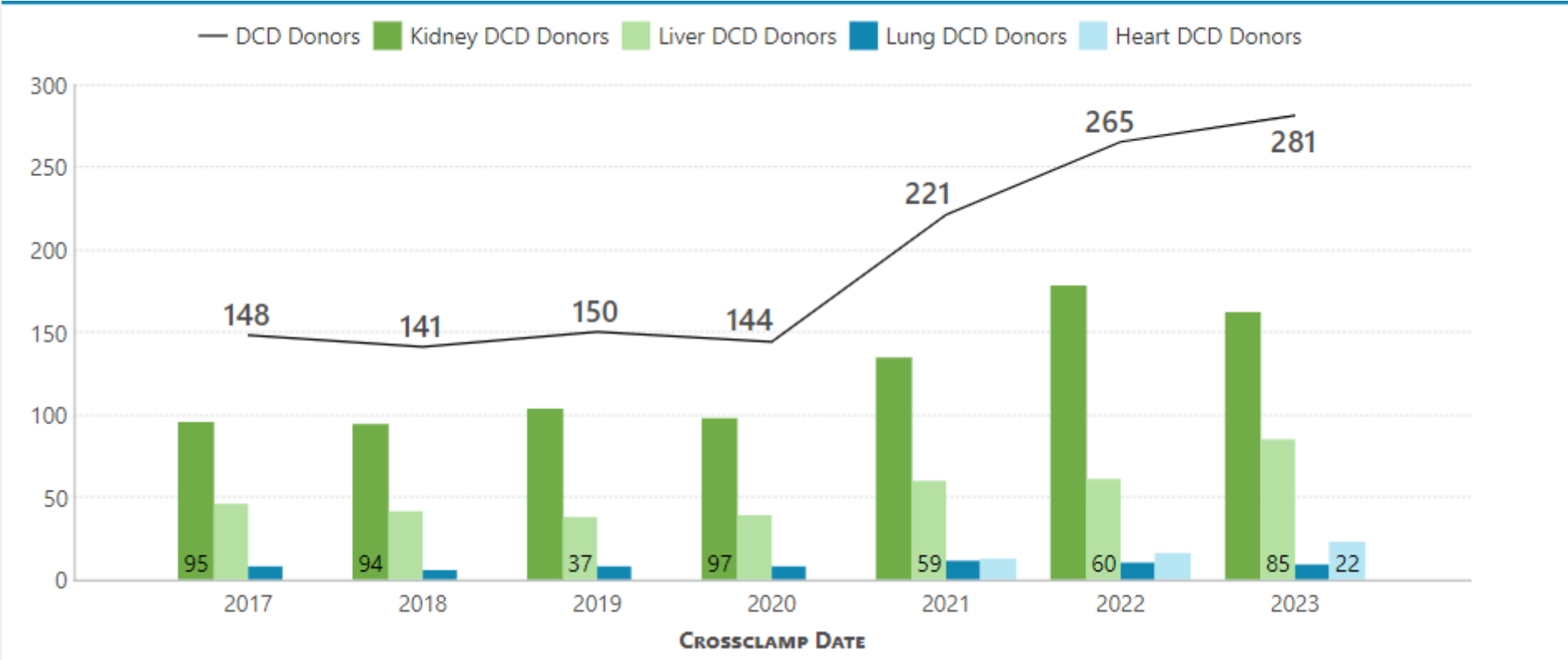
**Lack of perfusion during the dying process**

**Organ Assessment**

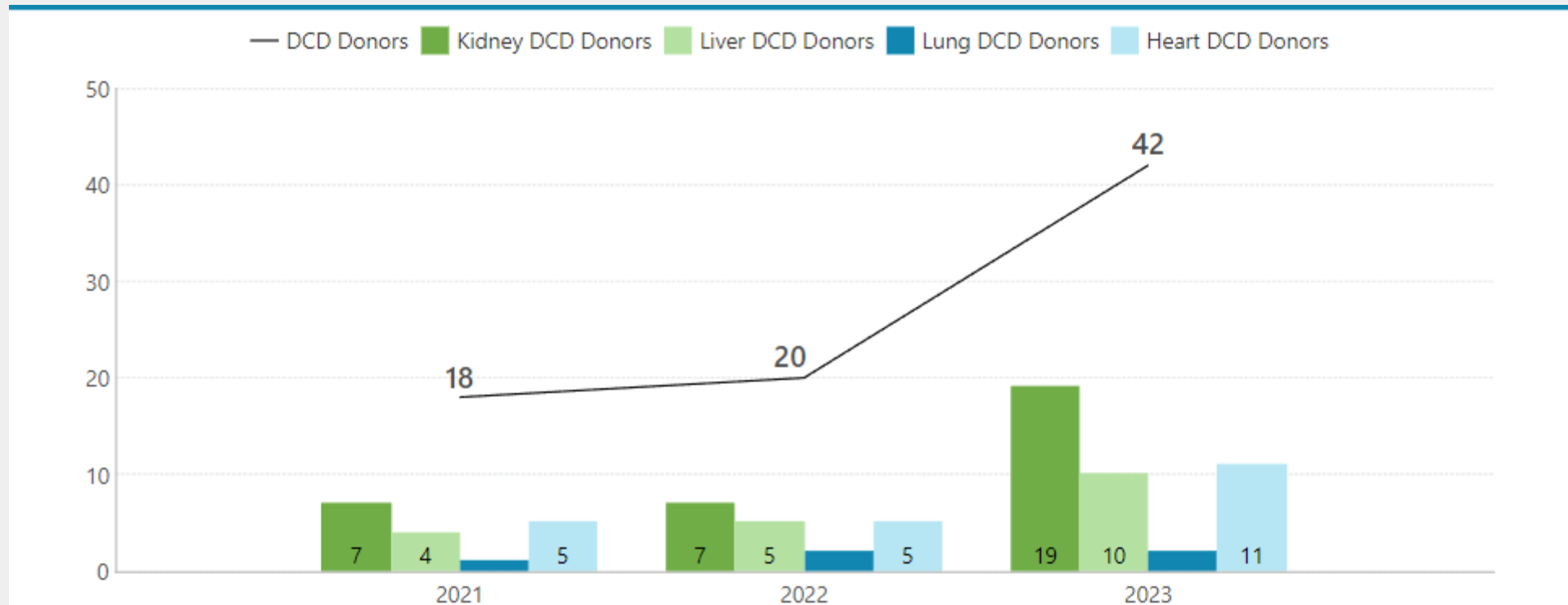
**No opportunity to assess organ function between start of DCD process and transplant**

Aguiar, H. (n.d.). *THE ALLIANCE INSIGHT SERIES FOR DONATION AND TRANSPLANT PROFESSIONALS*. The Alliance.

# Increasing lives saved by Arizona donors



# But it's not *just hearts*



# Next Steps

- DNA to begin consistent use of NRP on adult (>16 years old) DCD donors June 15th
- Continuing education and written materials for hospital partners and transplant programs
- Hospital follow-up & debriefs as needed

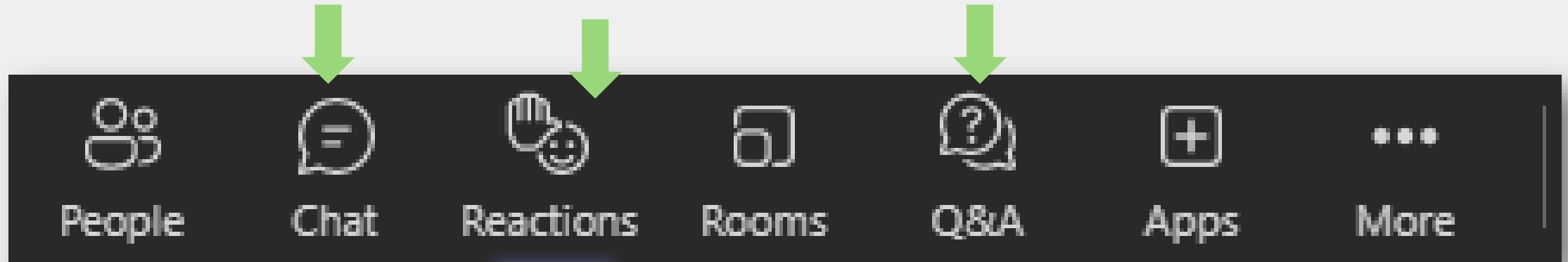
# Hospital Considerations

- Review hospital policy with your Donor Program Coordinator
  - Time from withdrawal to declaration
- Identify educational opportunities
  - Operating room
  - Blood bank

Chat with participants

Add a reaction or raise your hand

Ask a question



Please submit your questions through Q&A or chat.

# Questions?



**“It is the one thing that offers me peace, knowing that she lives on in so many others.”**

**Kari, mother of Calysta, 18**



**Thank you**