# The Back Story on Redesigning Liver Distribution

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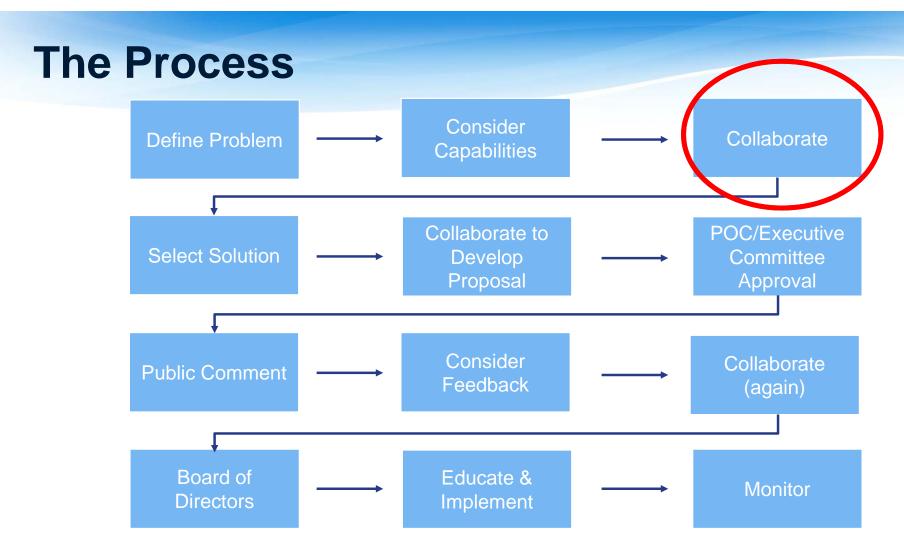


# Myth VS. Fact







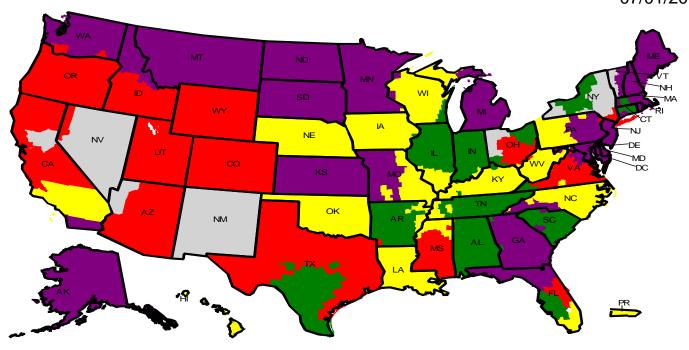






# The Worry of the Waitlist

Death Rate per Year on the Waitlist by DSA 07/01/2012-06/30/2013



Death Rate per Year on Waitlist

No program in DSA< 15.5</li>

**15.5-17.8** 

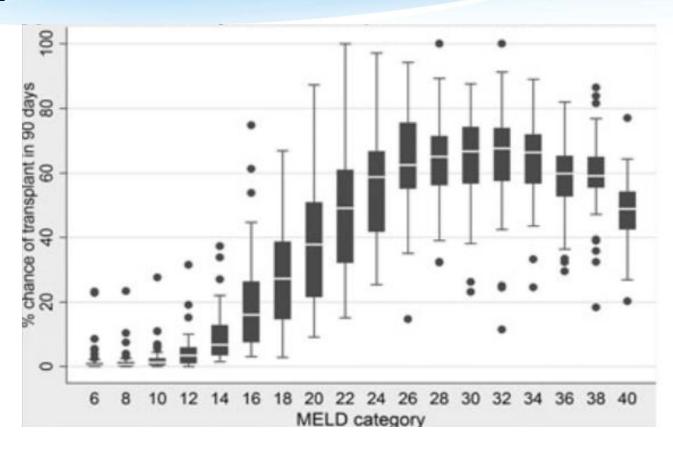
17.8-23.1

**23.1**+





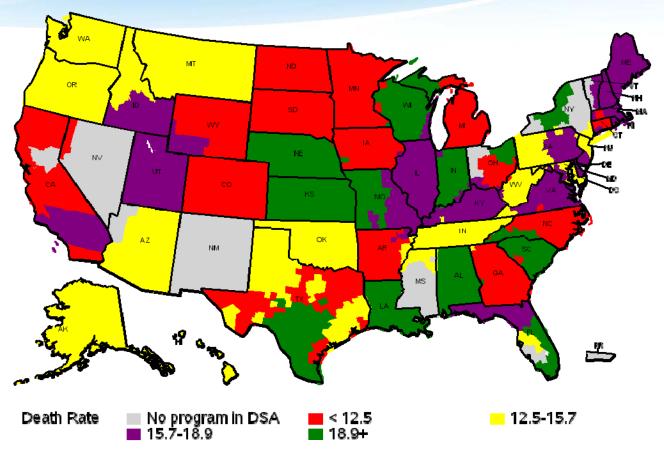
# **Transplant Truths**

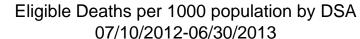






## **Observations**

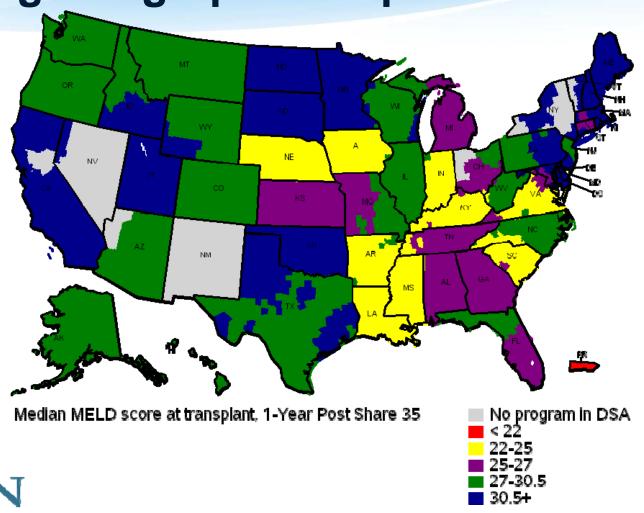








# **Existing Geographic Disparities**







#### **Directives & Recommendations**

- Institute of Medicine, 1999
  - IOM recommends establishment of liver allocation areas broad enough to provide for medically effective distribution of organs.
- Final Rule, 2000
  - "Neither place of residence nor place of listing shall be a major determinant of access to a transplant."
- Health & Human Services Advisory Committee on Transplantation, 2010
  - Recommended that organ allocation should be evidence-based and not based on the arbitrary boundaries of OPOs or their DSAs. HRSA supports effective approaches to develop distribution systems that minimize this variation.





# November 2012: The OPTN/UNOS Board of Directors RESOLVES:

The existing geographic disparity in allocation of organs for transplant is **unacceptably** high

The Board directs the organ-specific committees to define the measurement of fairness and any constraints for each organ system.

The Board requests that **optimized systems** utilizing overlapping v. non-overlapping geographic boundaries be compared





## **Challenges Liver Candidates Still Face**

Despite improvements in liver allocation and distribution, waitlist mortality remains high for patients with higher MELD scores

Significant disparity exists between OPOs and regions with regard to mean MELD at transplant and waitlist mortality

How can we direct livers to those most in need?





## Redistricting as a Potential Solution

Statistical modeling strongly suggests that using fewer geographical allocation districts would likely result in a reduced variation in the MELD or PELD scores at transplant and reduced waitlist deaths.





# Redistricting as a Potential Solution

The Committee agreed upon the following parameters for these optimized maps:

- The number of districts should be at least 4 and no more than 8;
- The minimum number of transplant centers per district is 6;
- The maximum median travel time between DSAs placed in the same district is 3 hours; and
- The number of waitlist deaths under redistricting must not be statistically significantly higher than in the current system.
- The districts should be contiguous.

**GOAL:** To reduce the variation in the median MELD at transplant.

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#### The Committee's Process

- Developed a concept paper released June 16, 2014
- Responses to accompanying questionnaire collected June 16- July 11, 2014
- Here today to continue the conversation & collaborate!
  - Speakers & panel members were selected based on the Concept Paper Questionnaire Responses
  - Presenters during the Open Forum submit their novel ideas or independent data for consideration to the Committee



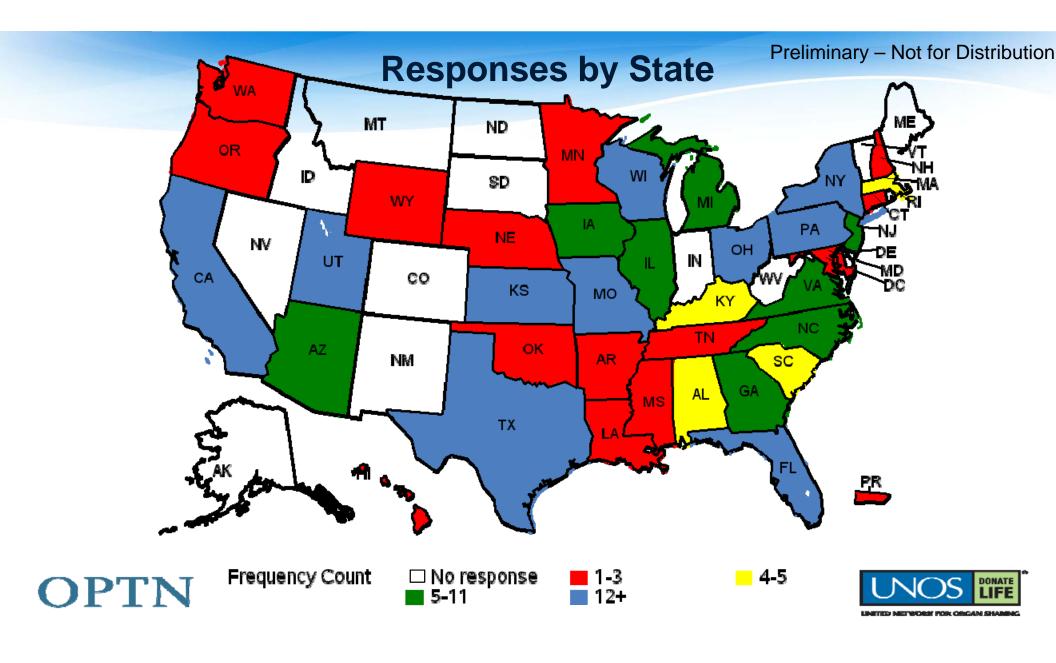


## **Questionnaire Summary**

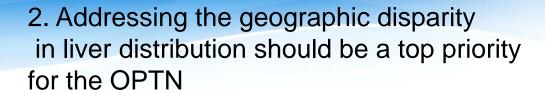
- 694 Individuals responded
- Over 1550 written responses
- 6 letters received from various institutions, some in support some in opposition

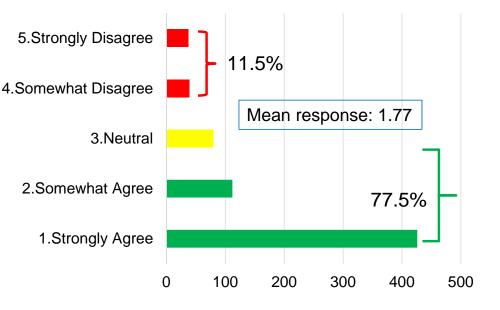


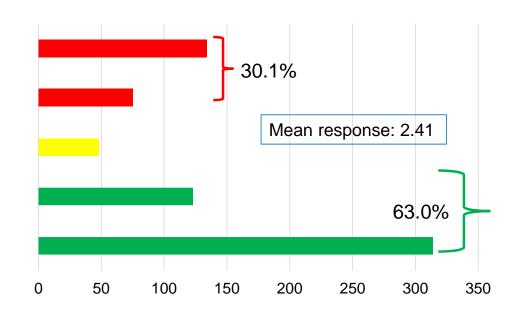




1. The ability of all liver transplant candidates to receive timely access to liver transplantation is a component of a fair national organ transplant system



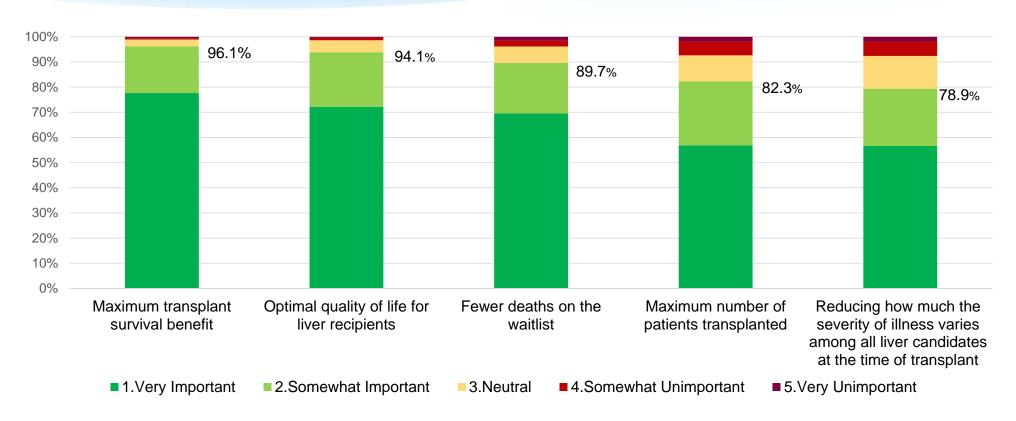








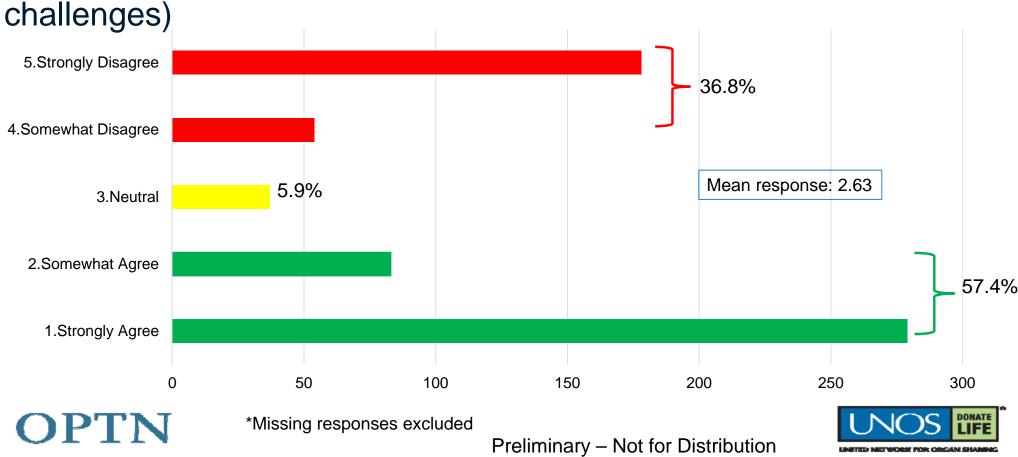
# 3. If the current distribution system were to change, how important are the following goals?



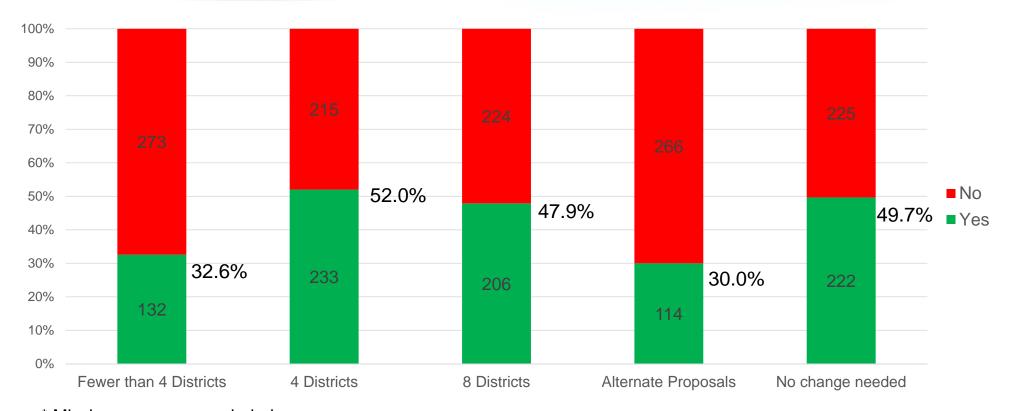




4. In an effort to achieve these goals, I support creating larger distribution areas, as long as the proposal addresses issues (cost, cold ischemia time, inappropriate discards, other operational



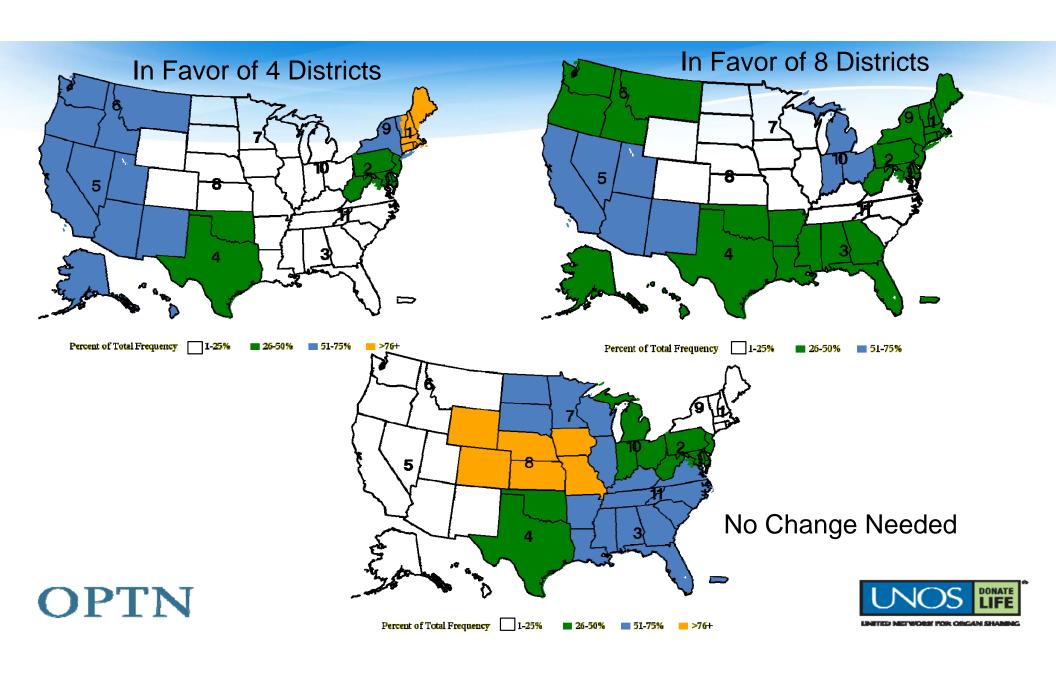
# 5. I would support developing revised policy that uses the following geographic allocation unit:



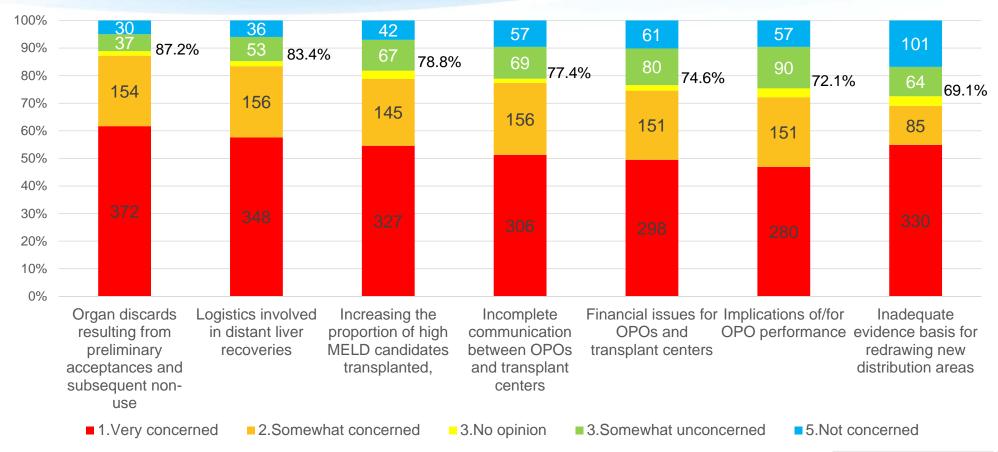
<sup>\*</sup> Missing responses excluded







# 6. My level of concern about the following factors in increasing the size of distribution areas can be ranked as such:







# Written Responses, Themes Identified (Questions 7-9)

- No answer (27%)
- Need more data on impact of Share 35, Share 35 too new (6%)
- Focus on donation rates/public education (7%)
- OPO Performance (6%)
- Transplant Center Listing Criteria (2%)
- Need to fix HCC &/or RRBs (7%)

- Concern for Cost/Logistics (some as a result of Share 35 experiences) (18%)
- Patient Access (5%)
- Expressed general support (15%)
- Expressed general opposition (6%)
- Interest in other distribution models: Concentric Circles(1%)





## Other (New) Solutions Proposed

- National sharing, 2 regions, 3 regions, 6 regions
- "Use Kidney allocation concepts."
- Lower the MELD for sharing to 25 or 20
- "Local allocation for any patients with a MELD score greater than 35. If there's not a local patient with a MELD score greater than 35, the organ would go to regional patients with a MELD score greater than 35. This achieves the goal of reducing variation in access to transplant for high MELD patients while simultaneously avoiding the problems of cost, transportation and local accountability for patient care."

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# Other (New) Solutions Proposed Continued

- "National share of status 1 and high MELD patients >35 on a 2 district basis first before the regional share in a 4 district area."
- "Look at top ten transplant programs in the country as well as top donor regions ... study and emulate their successes."
- "Work the system backwards instead, require the transfer of patients to areas where organs more plentiful. This may be, in the end, a more efficient system after all."
- "If each OPO in the country could yield 2 more liver donors per year results would exceed the entire redistricting plan."

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## Great People, Great ideas, Great Solutions

