

# The Value of Community- Based Initiatives

Saving Lives Through Blood  
and Marrow transplantation

Jeffrey Chell, MD

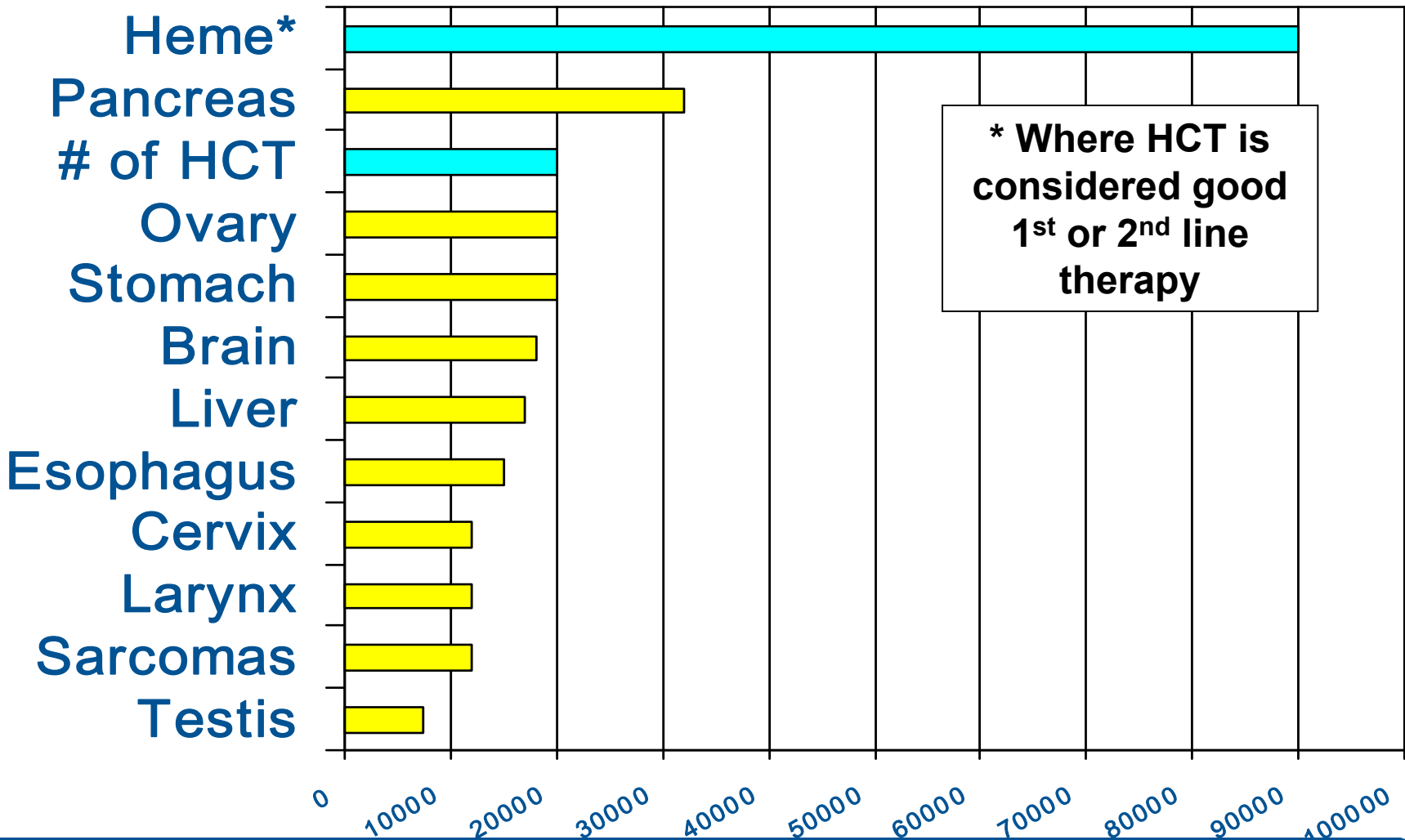
# What is Bone Marrow?

- The blood-forming cells in the hollow portion of our bones
- Looks just like blood
- Manufactures
  - Red Cells – Carry Oxygen
  - White Cells – Fight Infection
  - Platelets – prevent excessive bleeding

# Why Do People Need Transplants?

- Some diseases render the bone marrow incapable of forming normal blood cells
- The bone marrow then has to be replaced to effect a cure
- Examples
  - Leukemia and Lymphoma
  - Aplastic Anemia
  - Severe forms of Sickle Cell disease
  - 70 other diseases

# Annual Numbers of HCTs vs Numbers of Other Selected Malignancies





# Role of NMDP and Be The Match

- Recruit Donors to Join the Registry
- Maintain the Registry and match Donors to Patients in Need
- Make all the Arrangements to Allow a Donor to Safely Donate
- Encourages Moms to Consider Donating Their Child's Cord Blood to one of 21 Public Cord Blood Banks

# Umbilical Cord Blood

- Rich in the same cells as Bone Marrow
- As effective as Bone Marrow
- Donation is Safe and doesn't compromise the health of Mother or child

# Saving Our Communities...

- It's easy to join
  - Fill out a form that asks for contact information and brief health history
  - Swab the inside of your cheek with a cotton-tipped applicator
- You can join at one of 12,000 drives we host every year or online at [bethematch.org](https://bethematch.org)

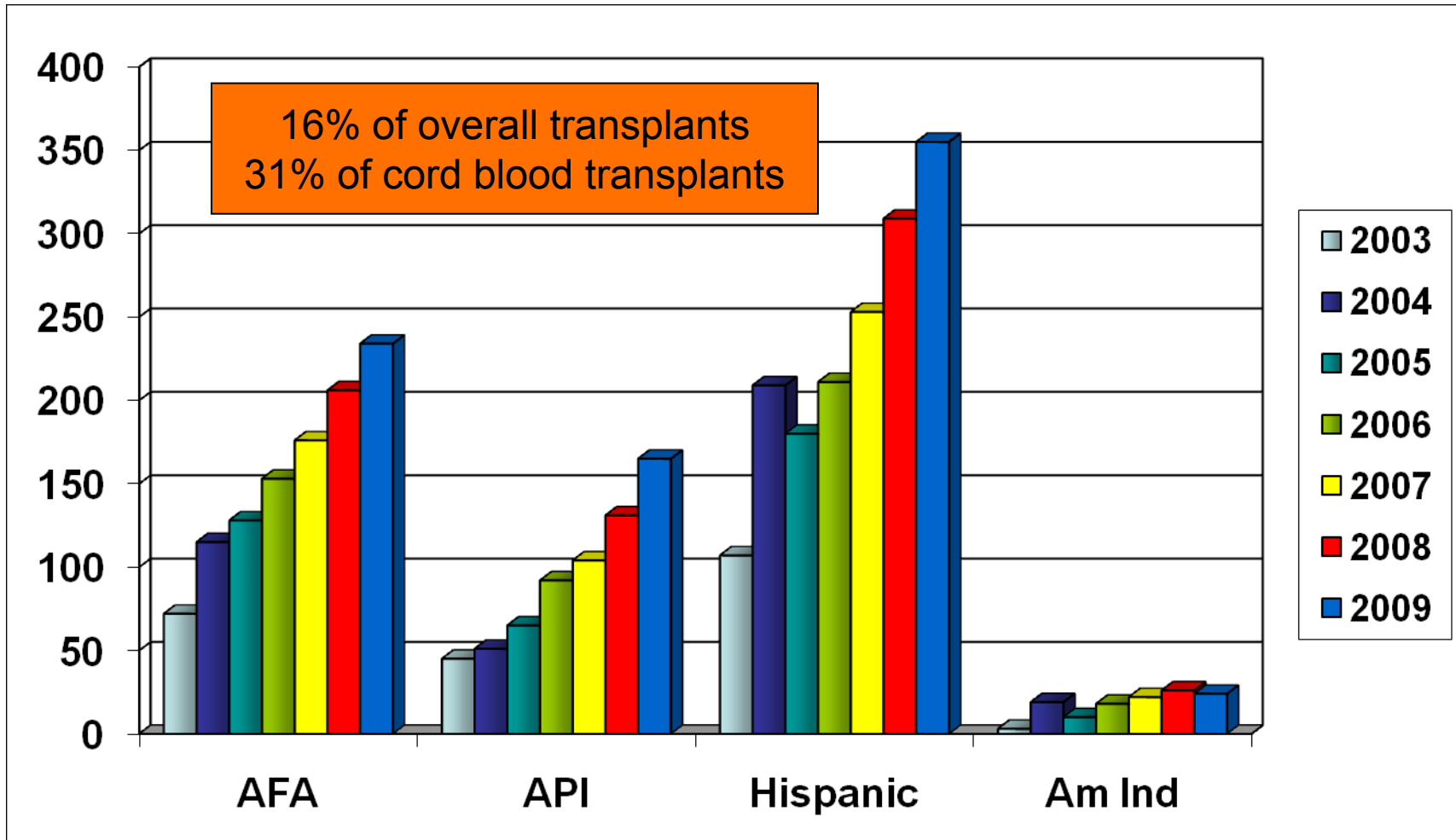
# Saving Our Communities...

- Basic health and contact information are collected
- Your name is added to a database that is searched daily by thousands of patients in need of a transplant
- Most patients find a match with a donor who shares their ancestry
  - This is why it is critical to grow the diversity of the registry

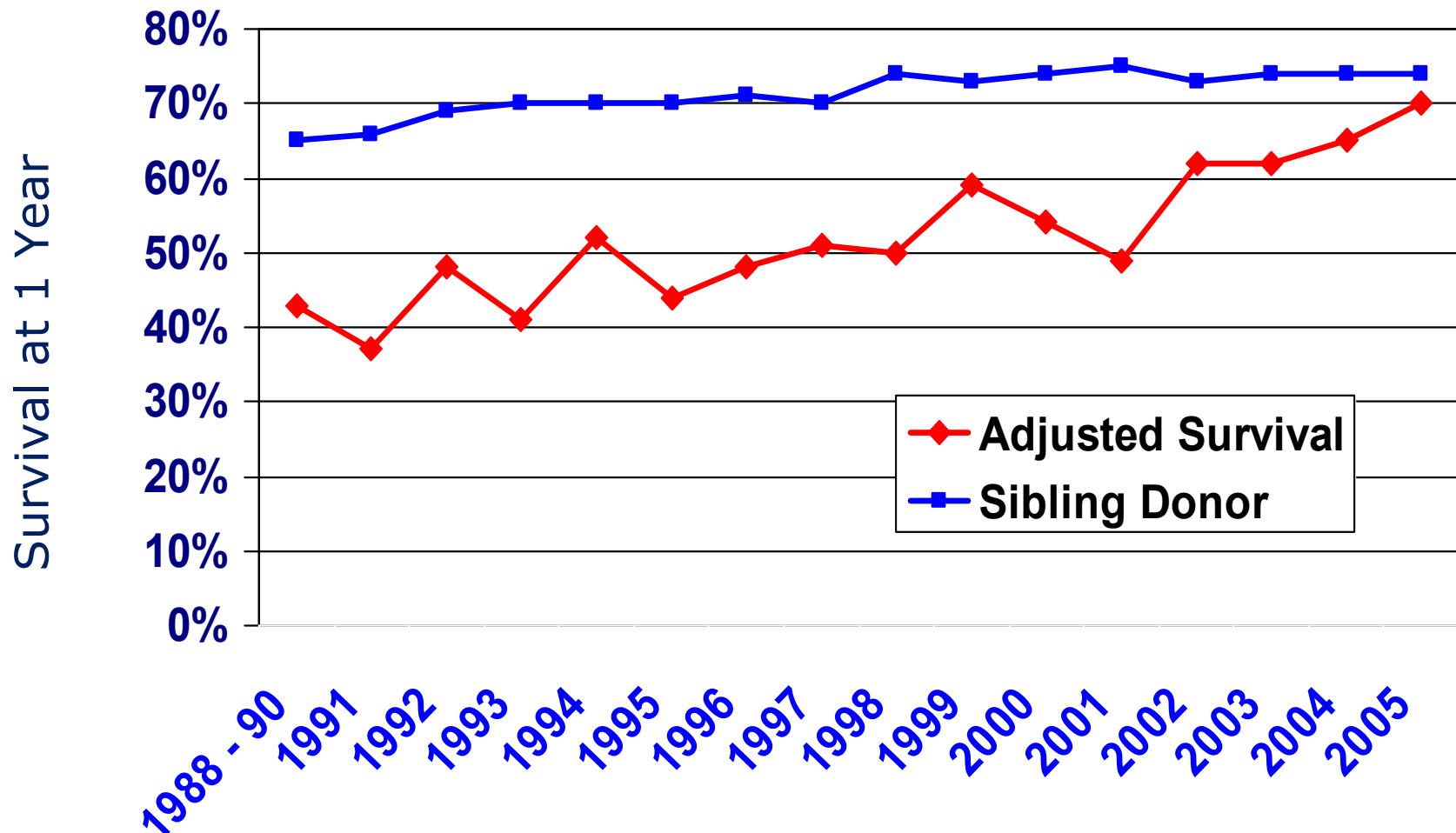
# Saving Our Communities...

- It's easy to donate if you are chosen as a donor
  - 70% of donors donate by taking blood from the arm in a several hour process called apheresis
  - 30% donate through a small incision made through the back hip bone while you are asleep
- Donation causes little if any discomfort to the donor
  - Particularly when the reward is a life saved
- Donors recovery completely in a matter of days

# Transplants by Ethnicity



# Survivals over Time: Unrelated vs. Related Donors



# Matching Donor to Recipient

- Replacement of the Bone Marrow requires precise matching of the donor and recipient immune systems
- 30% of us have a match in our family – usually a sibling
- 70% search for a match through the NMDP and the Be The Match Registry

# Public Private Partnership

- Program was formed in the mid-1980's and has been called the CW Bill Young Cell Transplantation Program since reauthorization in 2005
- Federal funds are leveraged with program income to
  - Recruit donors - \$80 per donor
  - Collect Cord Blood - \$2500 per Cord Blood
  - Infrastructure and Patient Advocacy

# Expected Additional Transplants by Adding 1,000,000 Available Donors to Registry

<b>Race of Donor</b>	<b>Additional Transplants / year</b>
<b>White</b>	<b>44</b>
<b>African-Am</b>	<b>166</b>
<b>Asian-Am</b>	<b>72</b>
<b>Hispanic</b>	<b>77</b>
<b>Native Am</b>	<b>50</b>



# 10,000 Successful Transplants

- An acceptably matched source of cells for every patient
- Optimal initial therapy and timely referral for transplant
- No non-match barriers impeding progress to transplant
- Reduce/eliminate complications
- Return to full health post transplant with minimum or no long term complications

Thank You!

Questions?