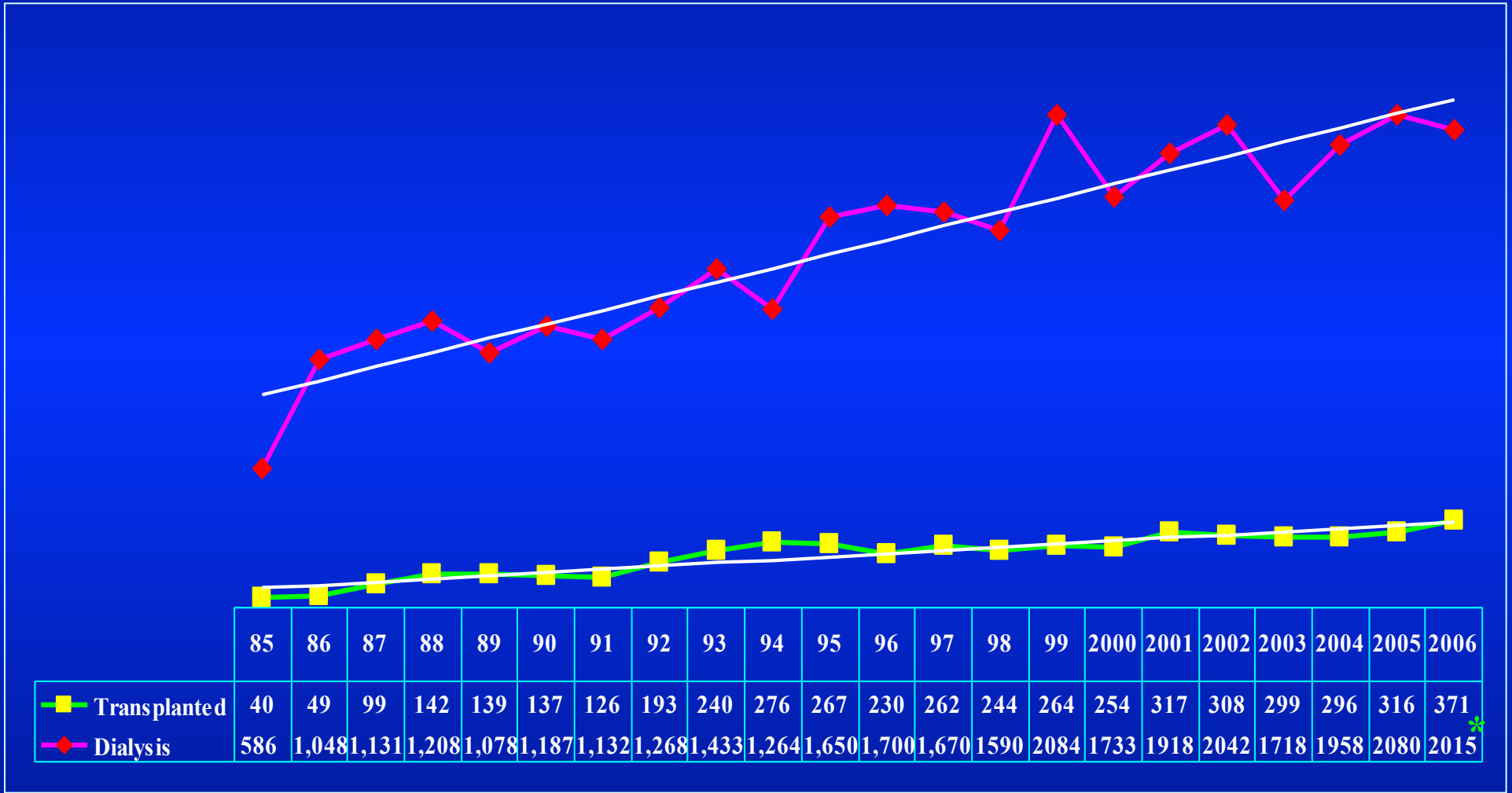


# **How to Reward the Organ Donor?**

**Faissal A.M. Shaheen M.D**

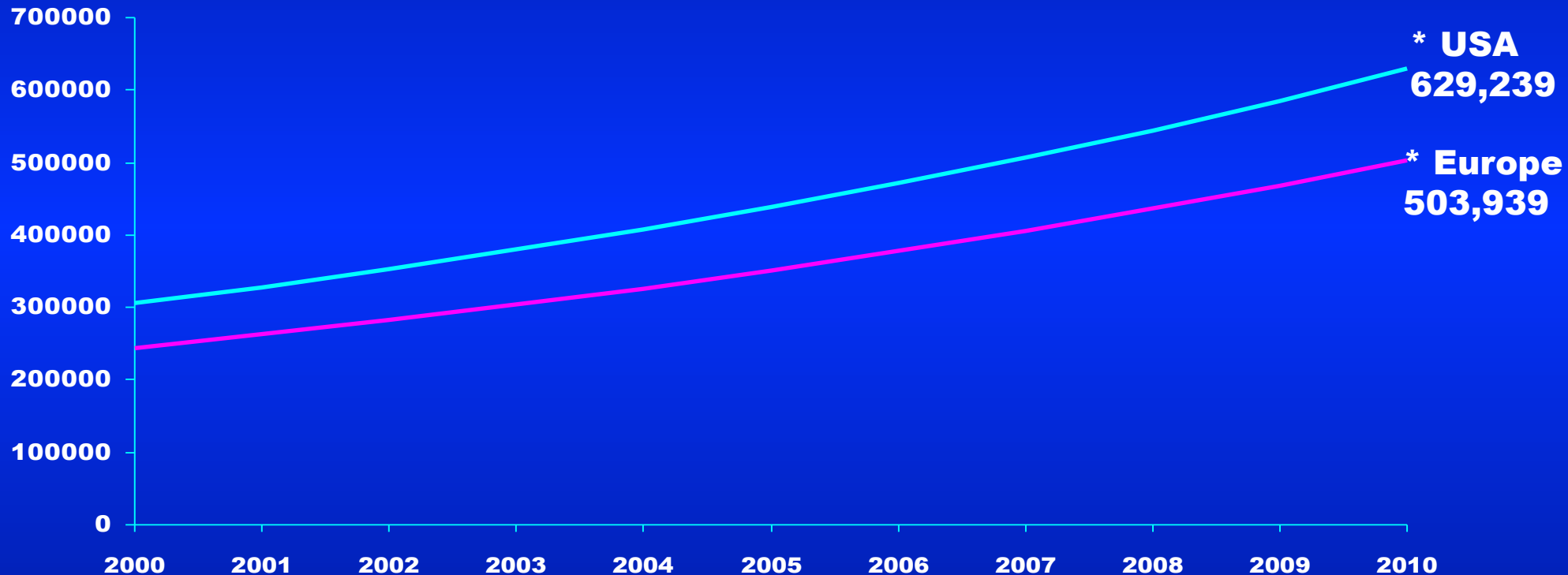
**FACHART in Medicine and Nephrology  
Director General Saudi Center for Organ  
Transplantation**

# Dialysis Versus Renal Transplant Patients in KSA (1985 -2006)



\* Provisional figure for year 2006

# Projected Renal Replacement Therapy (2000 to 2010)



*\* Assuming that RRT patients increase by the same rate throughout the projected period*

*\* 7.5% per year*

*\* (Nephrol Dial Transplant (2000) 15 Suppl 7)*

# Sources of Organ Donation Around the World

*Major*

Deceased  
Heart  
Beating  
Donor

*Moderate*

Living  
donor

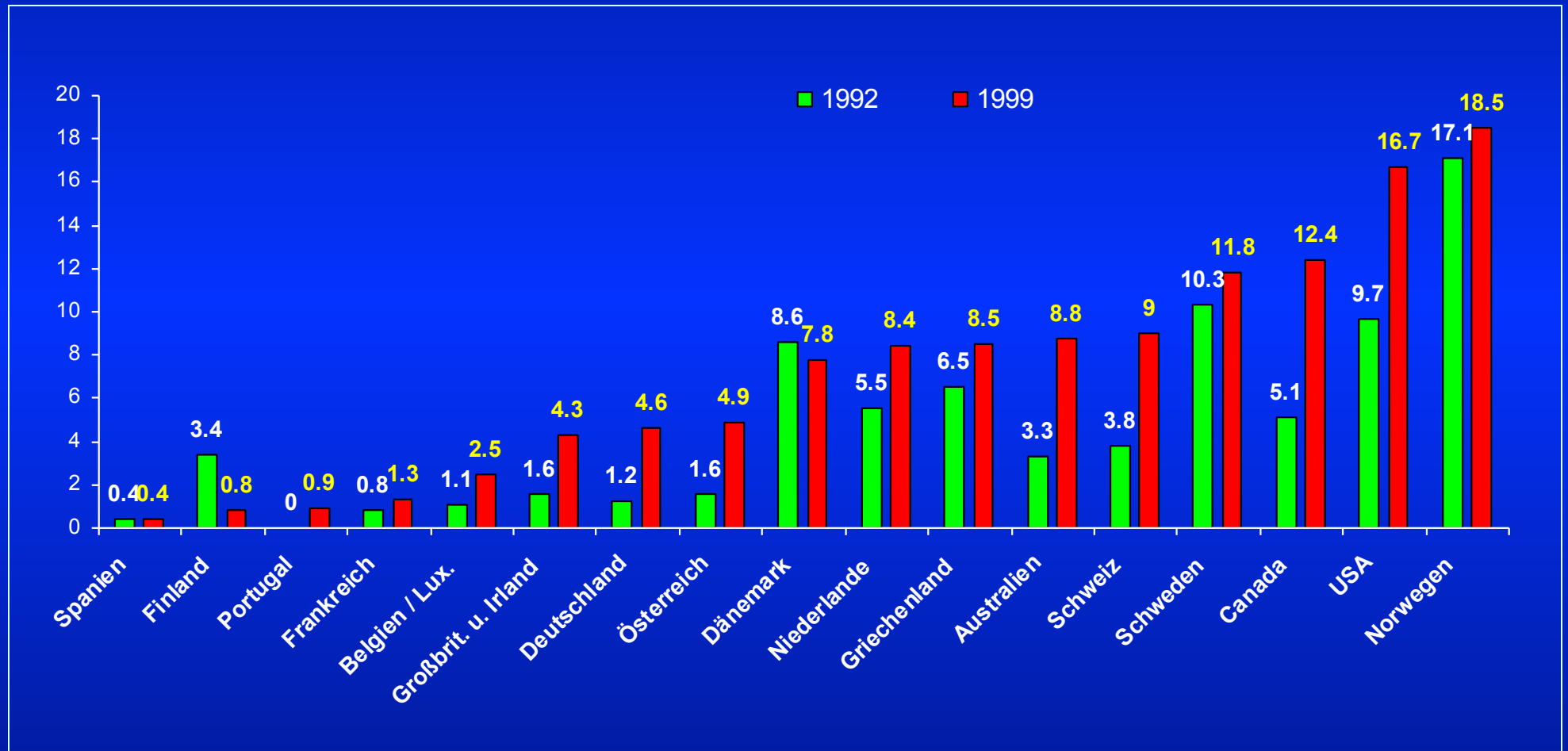
*Limited*

Deceased  
Non Heart  
Beating  
Donor

# Living Organ Donation in KSA & the World

- Genetically related - predominant
  - Spouse and in laws - predominant
  - Breast feeding related - limited –KSA-
  - Exchange between families - limited source
  - Commercial unrelated - prohibited
  - Genetically Unrelated
- Directed & Non directed - Growing

# Living Donor Kidney Transplantation per 1 mill. Inhabitants in Different Countries: Comparison: 1992 - 1999



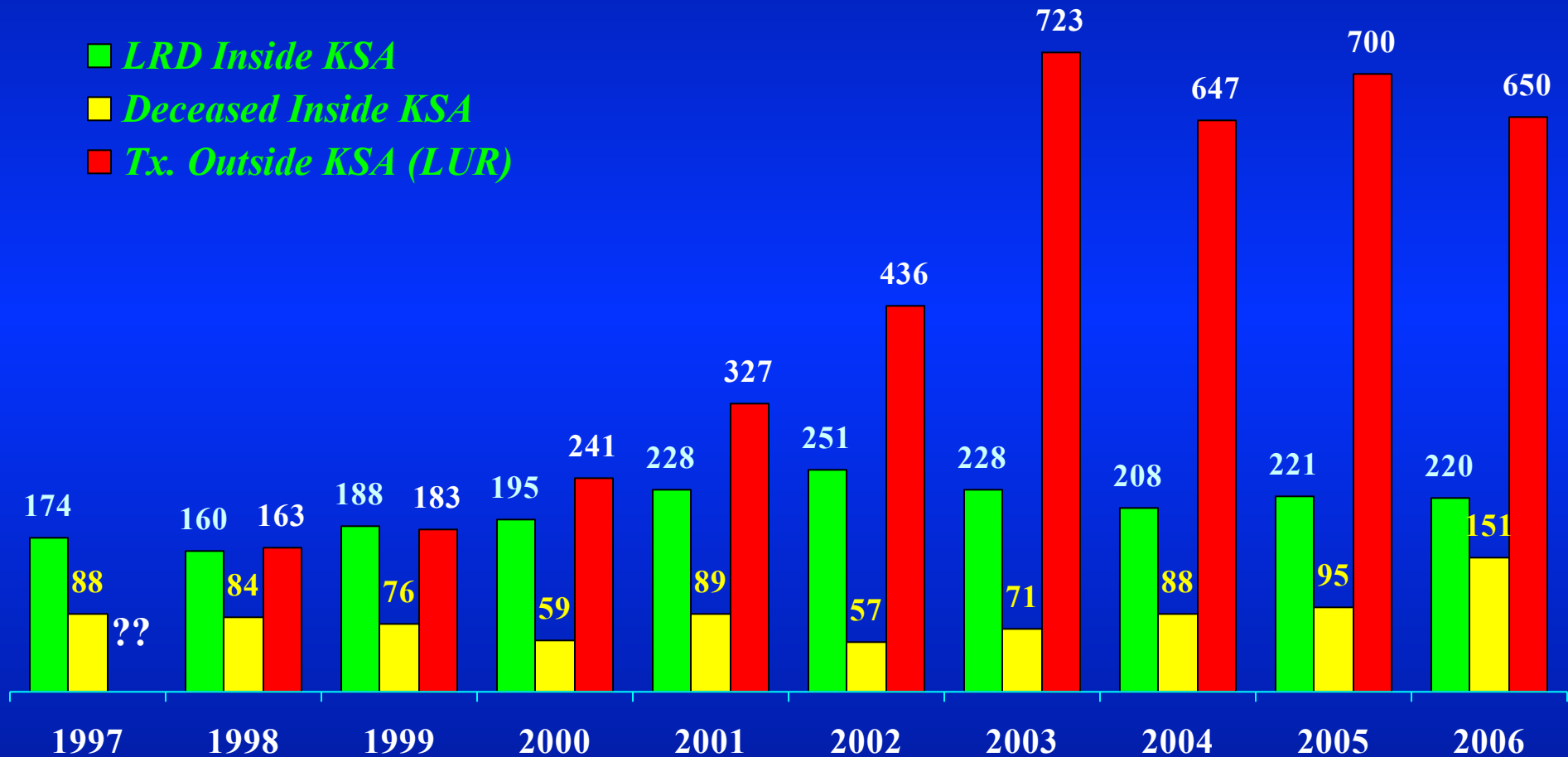
(Gutmann/Schroth, Organlebenspende in Europa, 2002, Springer Verlag)

# Deceased and Living Donor Kidney Transplantation in USA



*UNOS Registry 2006*

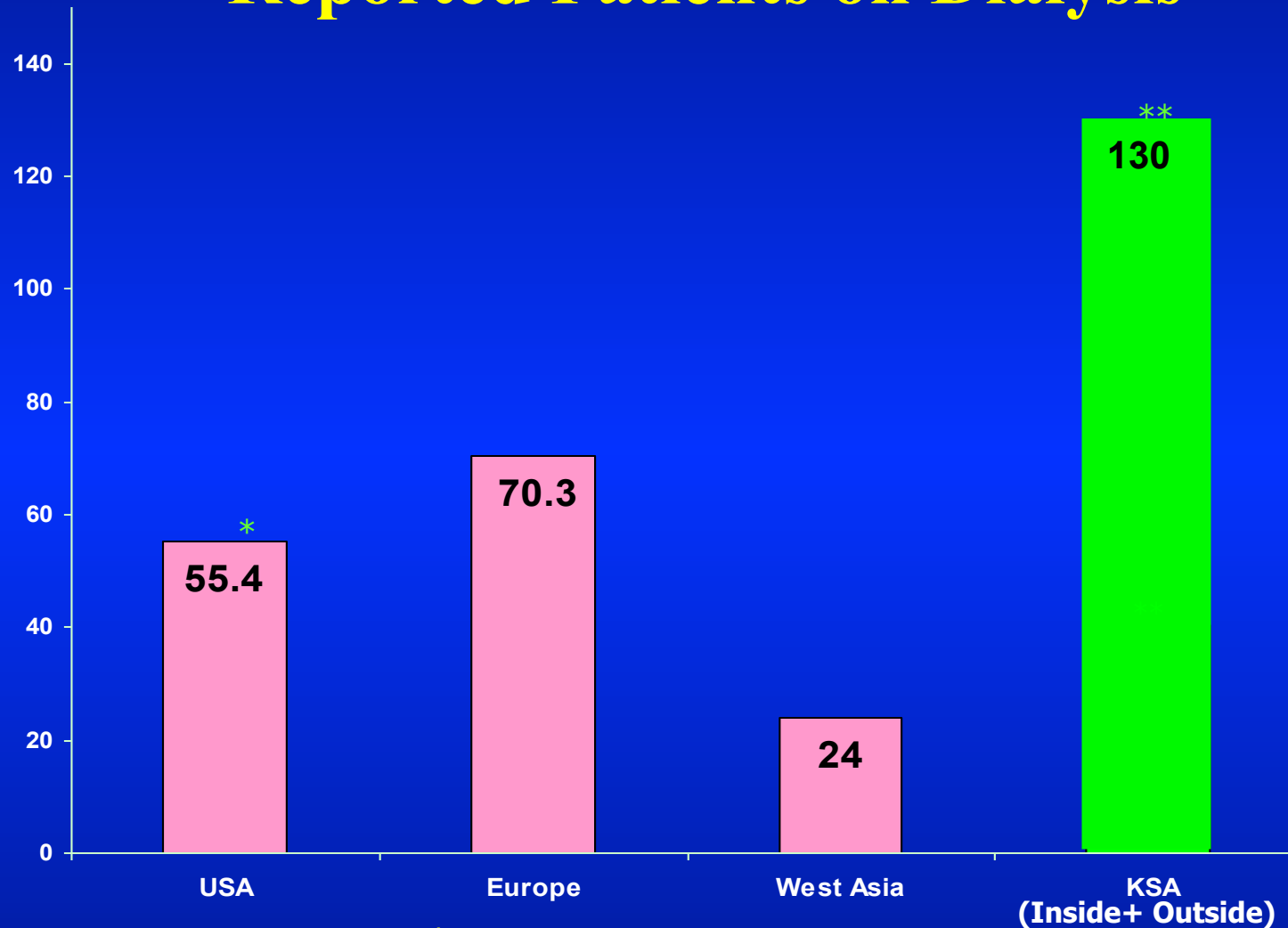
# Renal Transplantation in the Kingdom of Saudi Arabia





# Number of Kidney Transplantation per 1000 Reported Patients on Dialysis

Number



*North Europe: 135  
South Europe: 42*

\* Nephrol Dial Transplant (2000) 15 Suppl 7 , \*\* SCOT Data 2005

# Effects of Outside KSA Organ Transplantation

- **Post infectious complications**
  - Viral HIV, HCV, HBsAg,.. etc
  - Bacterial
  - Fungal
- **Post surgical complications**
- **Economical effects (on family, relatives, charity, loans)**

# What Can be Done to Face the Shortage of Renal Allografts

- **Increase donation from the cadavers (deceased)**
- **Encourage living donations from the genetically related donors**
- **Expand the pool of donation from the genetically unrelated ( living unrelated uncommercial allograft donation)**

# Examples of International Action Toward Live Organ Donation

- International forum on the **care of the live kidney donor**, ISN- Amsterdam, April 1-4 2004

- **Unrelated live transplant regulatory authority:**

Guidance to clinicians, UK, May 2004

[www.advisorybodies.doh.gov.uk/ultra](http://www.advisorybodies.doh.gov.uk/ultra)

## Human Organ and Tissue Transplantation

- Urges member states: .....
- (3) To consider setting up ethics commissions to ensure the ethics of cell, tissue and organ Tx.
- (4) To extend the use of living kidney donations when possible, in addition to donation from deceased donors

# **Human Organ and Tissue Transplantation**

- **Urges member states: .....**

**(5) To take measures to protect the poorest and vulnerable groups from “Transplant tourism” and the sale of tissues and organs, including attention to the wider problem of international trafficking in human tissues and organs**

# Non-Directed Living kidney donation

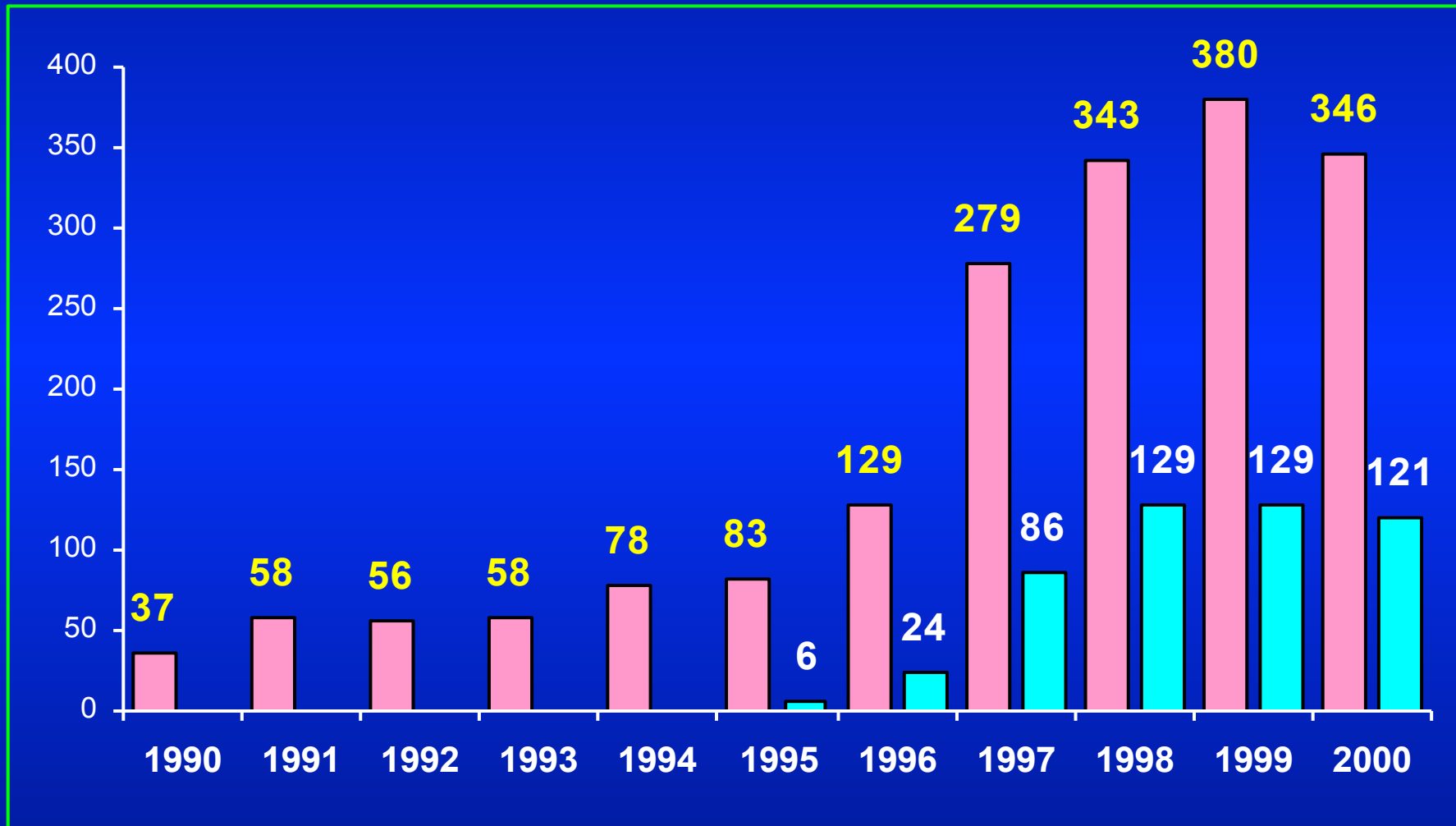
- A person can offer to donate one of his/her kidneys to un-specified recipient

# Directed Living kidney donation

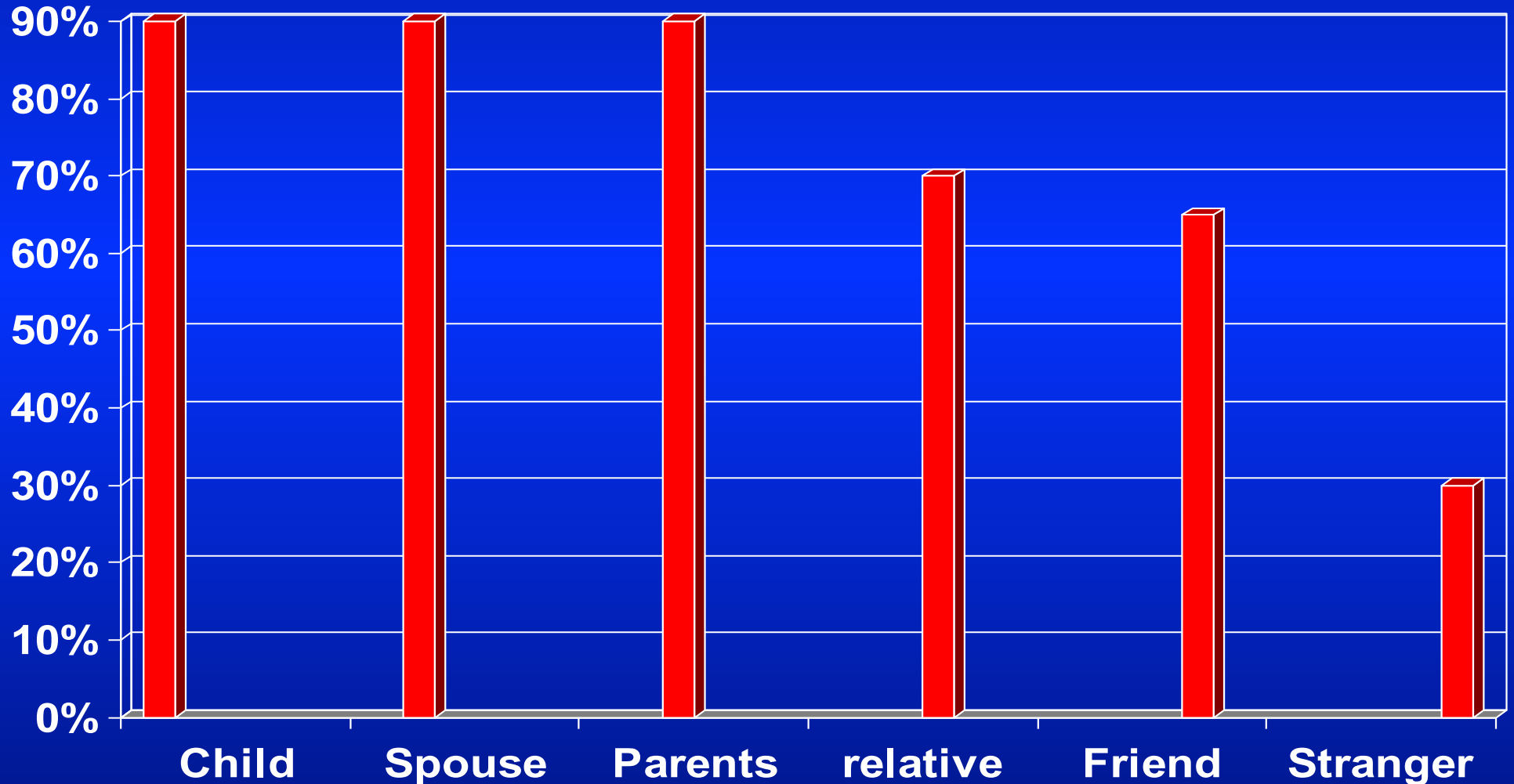
- A Donor specifies a recipient to receive one of his/her kidney.



# Living Donor Kidney Transplantation: Total and Unrelated Transplants in Germany



# British Columbia Living Kidney donation (Landolt et al 2001)



# Organ Procurement Transplantation Network (OPTN)/SRTR Data May 1, 2006



Donor Relation	Year									
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Parent	22.2%	20.4%	19.0%	17.9%	14.4%	14.6%	13.5%	12.6%	11.7%	12.0%
Offspring	13.9%	15.6%	14.9%	16.3%	18.1%	18.2%	18.6%	17.7%	17.8%	17.7%
Identical Twin	0.4%	0.2%	0.3%	0.2%	0.3%	0.2%	0.2%	0.2%	0.1%	0.3%
Full Sibling	38.9%	38.5%	36.0%	33.6%	32.1%	29.5%	28.5%	27.9%	27.1%	24.4%
Half Sibling	1.6%	1.4%	1.1%	1.5%	1.2%	1.4%	1.0%	1.3%	1.0%	1.1%
Other Relative	6.0%	6.2%	7.0%	7.7%	7.7%	8.0%	7.9%	7.5%	7.8%	7.6%
Spouse Unrelated	9.5%	9.4%	12.0%	11.8%	11.7%	11.4%	11.2%	11.0%	11.5%	11.6%
Other Unrelated	6.0%	7.0%	8.3%	10.2%	14.0%	15.8%	17.9%	20.4%	21.6%	21.8%
Unknown	1.5%	1.2%	1.4%	0.8%	0.4%	0.7%	1.0%	1.4%	1.4%	3.3%

# **Proposal of Saudi Model for Living Unrelated kidney donation**

- **Directed/Non Directed Donation in a voluntary act**
- **National supervision by a governmental center such as SCOT**
- **A special committee to evaluate the donors (medical, non-medical and ethical experts)**
- **Respect donor rights and medical fitness**
- **Rewarded gifting by government (life-long insurance, grants)**
- **Recipients rights are protected ( no hassling by the donors for extra benefits)**

# **Incentives (Reward Gifting)**

- **Topic of major ethical controversy.**
- **Therapeutic approaches differ with time and region.**

# Incentives (Reward Gifting)

- In 1993, the UNOS committee of the financial incentives for organ donation voted against compensation but predicted a change toward rewarded gifting with time( [www..optn.org](http://www.optn.org)).
- In 2004, the US Organ Recovery Improvement act addressed the issue by admitting to the need to reimburse for the absence from work ( UNOS policies).
- The reimbursement for absence from work, however, is a percentage of the income. Donors with high salary bracket get higher reimbursement.

# **Incentives (Reward Gifting)**

- **In KSA, the new act for the living unrelated organ donation will reimburse the rich and the poor alike for the absence from work by the government whether the donor is governmental employee or not and whether he is a donor to a genetically related or unrelated recipient.**

# **Incentives (Reward Gifting)**

- We believe that the KSA's project of rewarded organ donation from the unrelated living is timely to decrease the commercial transplantation in other countries and control the practices by transplanting our population inside our country from donors of our nation.**



# Conclusion

- **Organ donation is evolving (sources and ethical concepts) and is driven by the increased demand.**
- **Without meeting the demands the patients on the waiting lists will die.**
- **Living organ donation is expanding to involve directed ( specific emotionally related) and non-directed( unknown, anonymous, stranger) in the advanced countries in the field of transplantation.**

# Conclusion

- **Without set rules for the incentives, the donors will be exploited by the mediators. Governments are at better position to organize the incentives than leaving it to the mediators or individuals.**
- **The KSA approach may have less adverse ethical side effects, such as exploitation of the poor than other places**