



**World Health  
Organization**





# 10 years of liver transplantation in the Republic of Belarus: Ethical challenges and perspectives



A world map in shades of blue, centered on the Atlantic Ocean, with a grid of latitude and longitude lines. The map is the background for the main text.

**WHO relevant principles on human  
cell, tissue and organ transplantation**

**Organ Transplantation and  
bioethics**

# Transplantation





PAST



# 1954





# Thomas Starzl

# 1963

NIHPA Manuscripts

NIHPA Manuscripts

Surg Gynecol Obstet. Author manuscript; available in PMC Feb 2, 2009.  
Published in final edited form as:  
Surg Gynecol Obstet. Dec 1963; 117: 659-676.

PMCID: PMC2634660  
NIHMSID: NIHMS79294

## HOMOTRANSPLANTATION OF THE LIVER IN HUMANS

[T. E. STARZL](#), M.D., F.A.C.S., [T. L. MARCHIORO](#), M.D., [K. N. VON KAULLA](#), M.D., [G. HERMANN](#), M.D., [R. S. BRITTAIN](#), M.D., and [W. R. WADDELL](#), M.D., F.A.C.S.

[Author information](#) ► [Copyright and License information](#) ►

See other articles in PMC that [cite](#) the published article.

AN IDEAL TREATMENT for several kinds of liver disease would be removal of the diseased organ and orthotopic replacement with a hepatic homograft. Patients with primary carcinoma of the liver, congenital atresia of the bile ducts, and terminal cirrhosis would all be candidates. The application of such therapy depends, first, upon the employment of a satisfactory operative procedure and, second, upon the use of suitable measures to prevent the immunologic rejection of the graft.

Recently, solutions to these problems have evolved which are at least partially satisfactory. The technical requirements for successful canine hepatic transplantation were defined (9). In addition, a regimen of anti-rejection therapy was developed in patients receiving renal homografts which resulted in consistent prolonged survival of the foreign tissue (11, 12).

In the present study, the application of these advances to the problem of clinical hepatic homotransplantation in 3 patients will be described. The first attempt resulted in failure at the operating table. The course of the second 2 patients establishes the feasibility of such an operation in humans, despite the fact that death occurred 22 and 7½ days after transplantation from pulmonary emboli.

## METHODS

Go to:

### Recipient patients

Patient 1 was a 3 year old white male with congenital biliary atresia (Fig. 1A). Physical development had been retarded, preoperative weight being 20 pounds. His general condition was poor, with hepatosplenomegaly, jaundice, and ascites. Total bilirubin was 20.7 milligrams per cent with a conjugated fraction of 16.7 milligrams per cent. Alkaline phosphatase was 12.8 Bodansky units. Serum glutamic-oxalacetic acid transaminase (SGOT) was 160 SF units. The hospital course prior to hepatic homotransplantation on 1 March 1963 was uneventful. On 12 February, the patient underwent thymectomy without complication. For 13 days prior to hepatic transplantation, he was given daily doses of azathioprine of 5 to 6 milligrams per kilogram of body weight.



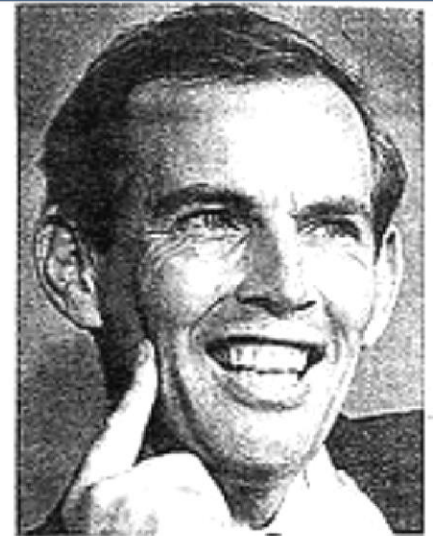
# Moments in History

1967

In December, 1967, a young woman, Denise Darvall, was walking across a street in Woodstock to buy a cake when a car struck her. She died in Groote Schuur Hospital and in doing so achieved immortality by becoming the world's first heart donor when Christiaan Neethling Barnard transferred her heart into the chest of Louis Washkansky.

Cape Town has been witness to many historic moments since the day Van Riebeeck anchored in Table Bay. Few, if any, brought more limelight to the city than the heart transplant. For the surgeon, Dr Barnard, soon to be a household name throughout the world, "the heart is merely a pump". But for those who equated the heart with love and death, the transplant seemed close to a miracle.

"Mr Louis Washkansky, the 55-year-old Cape Town man whose life is being sustained today by the heart of a dead 25-year-old woman after the world's first successful heart transplant yesterday, is conscious in Groote Schuur Hospital and in a satisfactory condition." Monday, 4th December 1967



Professor Chris Barnard, leader of the heart-transplant team, in a characteristic pose during one of his many press conferences.



First close-up photograph to be taken of Mr Louis Washkansky, who underwent the world's first heart-transplant operation, was taken by a surgeon using an Argus photographer's camera at Groote Schuur Hospital. Mr Washkansky, whose condition was given as good, is being attended to (inset) by *Cranshaw* & *Bourget*.

*Russ, R. and Bourget, P. 1991*

PAST

NOW







PAST

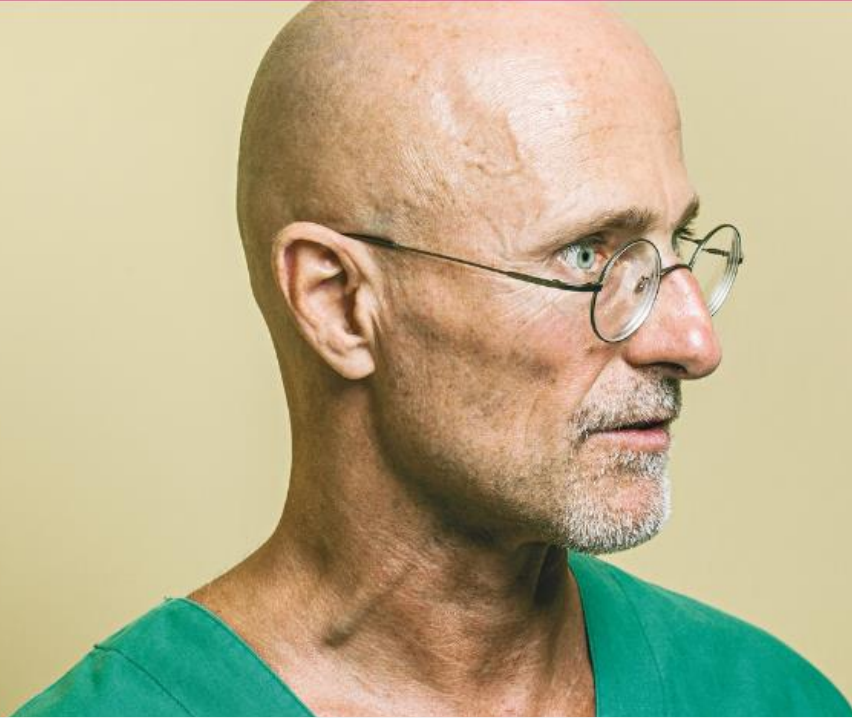
NOW

FUTURE



# 'I'll do the first human head transplant'

Italian surgeon Sergio Canavero says he will change medical history as soon as 2017 - he even has a volunteer. Can it be done?



HEALTH AND MEDICINE

## The First Human Head Transplant Has Been Scheduled For 2017

September 12, 2015 | by Amy Lynn







**Transplantation  
worldwide**

# Existing evidence



According to the world experience, transplants provide excellent long term survivals and quality of life, most of them in diseases with no other solutions







## Organ Donation and Transplantation Activities 2016

*Global Observatory on Donation and Transplantation (GODT)*



## Global activity in organ transplantation

Kidney	Liver	Heart	Lung	Estimations 2016	
				Pancreas	S Bowel
84,356	27,868	7,023	5,046	2,299	196

≈ 126,788 solid organ transplants reported in 2015

≈ 1,92 % increase vs 2014

≤ 10% of global needs

41.8% living kidney transplants

21% living liver transplants

Information of 111 Member States on organ transplantation activities is included in the GODT: 89 of 2015, 9 of 2014, 7 of 2013, 2 of 2012, 3 of 2011 and 1 of 2010.

# Transplants

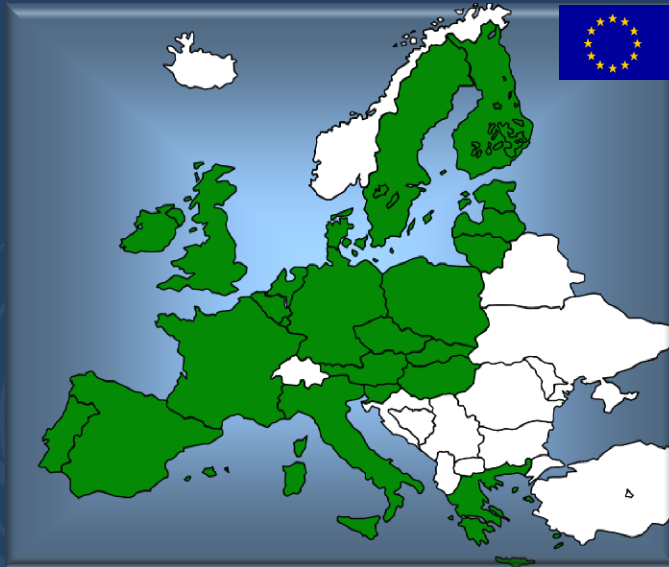




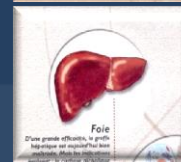


# Transplants & Waiting List in the EU, 2015

(Newsletter Transplant, 2016)



For many, the waiting continues  
...more than 3.773 patients died  
while waiting to be transplanted  
in 2015



**TOTAL**

**TRANSPLANTS**

**W.L.**

20102

52.397

7,694

7.603

2.235

3.873

1.818

2.105

---

31,849

---

65.978





*This game made possible by a lifesaving organ transplant.*

Skylar Myers, heart recipient

**122,555**

**people waiting for a  
lifesaving transplant**

[Sign up to be a donor](#)

*Working together. Saving lives.*

Our mission is to advance organ availability and transplantation to support patients through education, technology and policy development.



# Renal Failure



**TRANSPLANTS  
80.000 /YEAR**

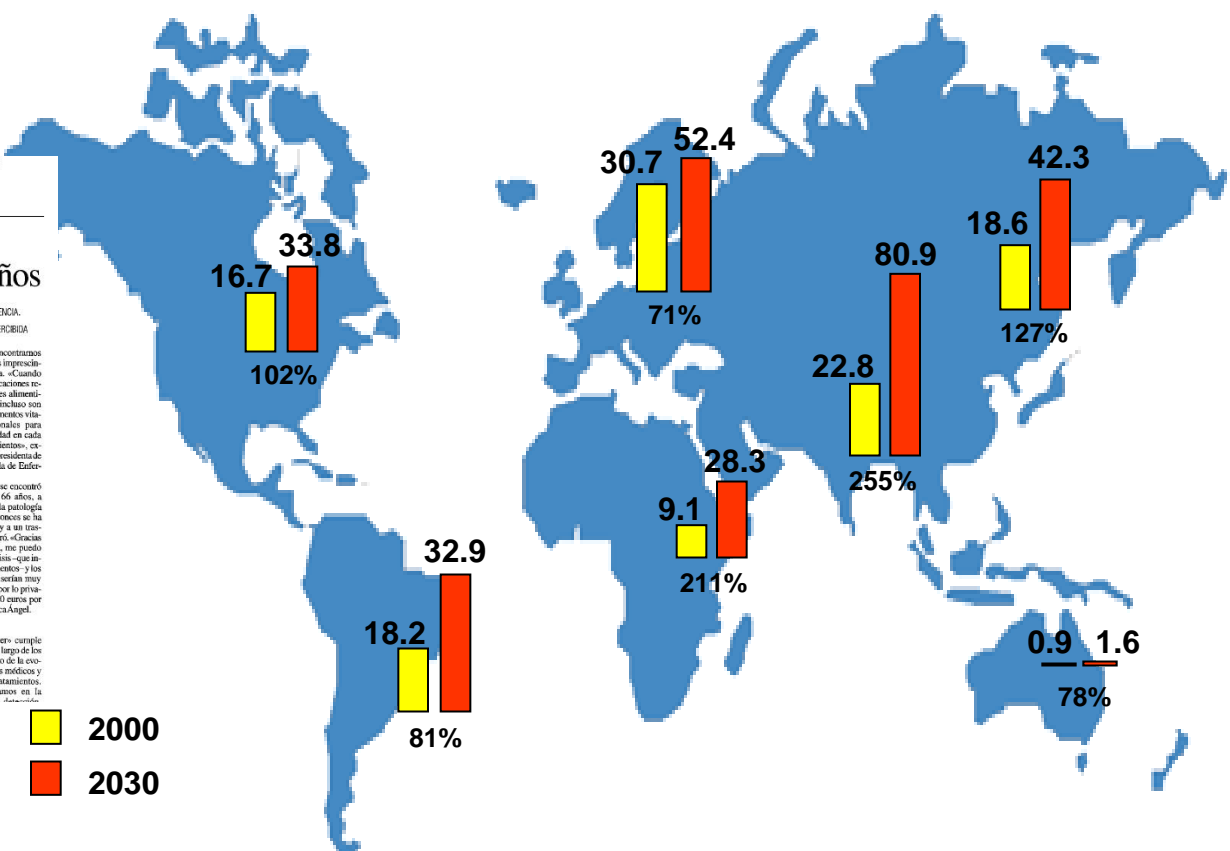


**DYALYSIS :2.000.000  
WORLDWIDE  
> + 100.000/YEAR**



**DEATHS > 1 MILLION/YEAR**

# DIABETES IN THE WORLD



## ELDERLY

O.J.D.: 128560  
E.G.M.: 448000  
Fecha: 16/03/2006  
Sección: SALUD  
Páginas: 8

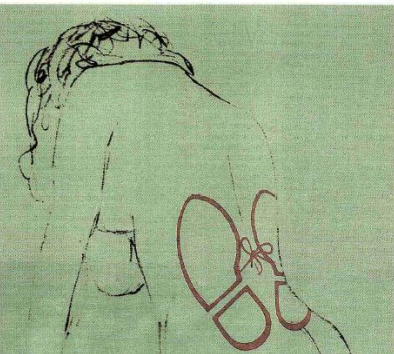


### El envejecimiento y la diabetes duplicarán los enfermos renales en 10 años

CERCA DE 5 MILLONES DE ESPAÑOLES SUFREN PROBLEMAS CRÓNICOS DE RIÑÓN, Y MÁS DE UN MILLÓN Y MEDIO PADECE INSUFICIENCIA. LOS ESPECIALISTAS APUESTAN POR PROGRAMAS DE DETECCIÓN PRECOZ, YA QUE EN UN 90 POR CIENTO DE LA POBLACIÓN PASA DESAPERCIBIDA.

Los riñones son los «centrales de nuestro corazón», ya que sus complicaciones preceden a problemas cardiovasculares como el infarto de miocardio o el accidente cerebrovascular. La razón es que los daños en sus vasos sanguíneos se expresan a través de la insuficiencia renal y sus alteraciones.

En la actualidad, hay más de 40.000 personas en España que están en tratamiento renal sustitutivo, mediante diálisis o trasplante, cifra que se duplicará en la próxima década, según datos que maneja el estudio «Español» de la Sociedad Española de Nefrología (SEN), y que revela que en nuestro país hay más de 5 millones de pacientes crónicos, y cerca de un millón y medio desconocen que sus riñones tienen normadas sus funciones. «En este momento, pensamos que la enfermedad renal es una epidemia que puede entenderse en los próximos años, entre un 75 y 100 por ciento, debido principalmente al aumento de pacientes diabéticos y al progresivo envejecimiento de la población», explica el doctor Ángel Luis Martín de Francisco Hernández, presidente de la Sociedad Española de Nefrología (SEN). «Todo esto puede provocar un aumento de los costes económicos, que en la actualidad son casi 900 millones de euros anuales, que podrían destinarse a otras necesidades sanitarias», explica.



Riñón. Para evitar encuentros con este problema es imprescindible una dieta sana. «Cuando aparecen las complicaciones renales las restricciones alimenticias son mayores e incluso son necesarios los suplementos vitamínicos y nutricionales para aliviar la enfermedad en cada estadio de sus tratamientos», explica Marcel Falas, presidente de la Sociedad Española de Enfermería Nefrológica.

En esta situación se encontró Ángel Blangini, de 66 años, a quien se le detectó la patología hace dos. Desde entonces se ha sometido a diálisis y a un trasplante, que no prosperó. «Gracias a la sanidad pública, me puedo permitir la hemodiálisis—que incluye los desplazamientos— y los medicamentos, que serían muy costosos si se fuera por lo privado,—entre 120 y 180 euros por cada sesión—», explica Ángel.

■ 2000  
■ 2030

## HYPERTENSION



	TOTAL	HIGH INCOME COUNTRIES	LOW-MEDIUM INCOME COUNTRIES
2000	154 m	55 m	99 m
2030	370 m	84 m	286 m

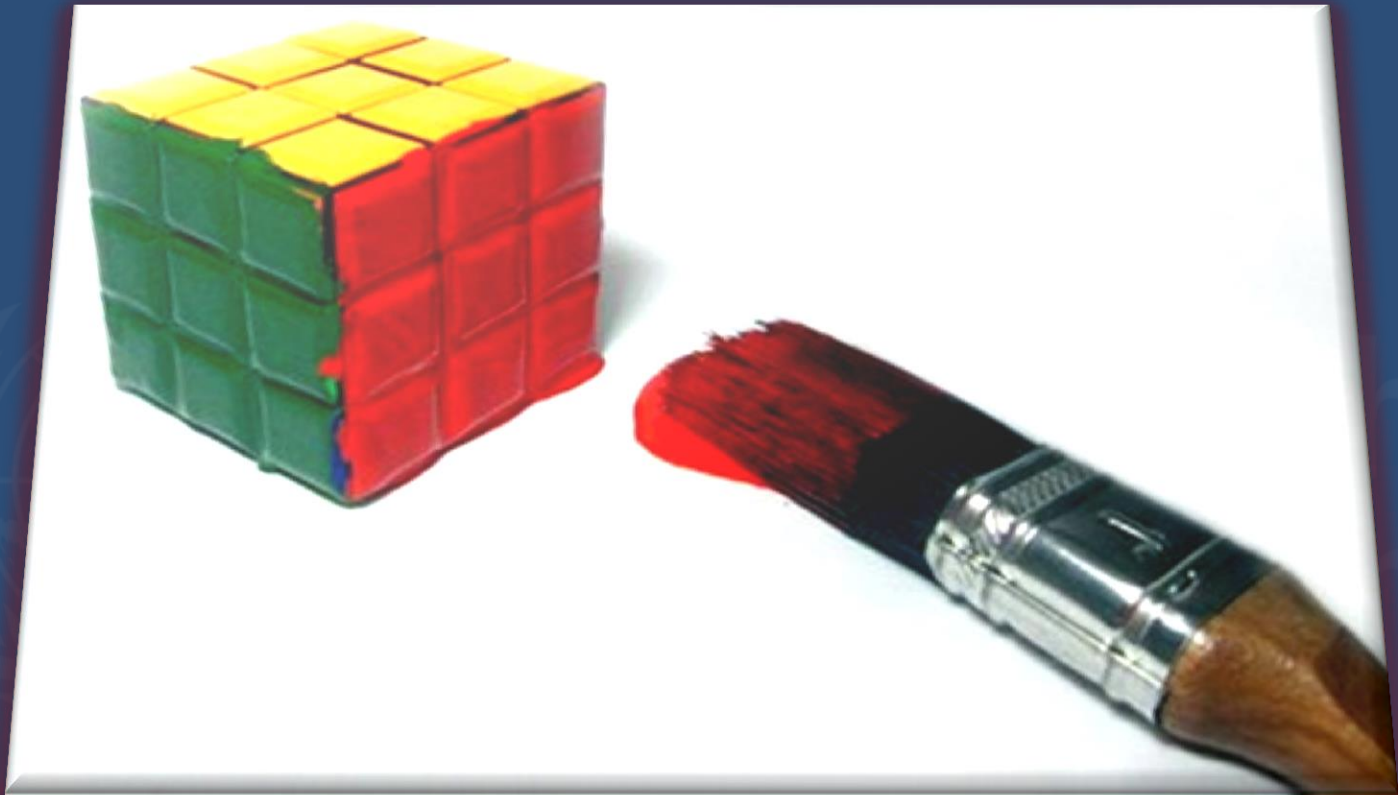
\* Millions of patients

Supply



Demand







th  
on

# ✓ Optimized brain-death



World Health  
Organization



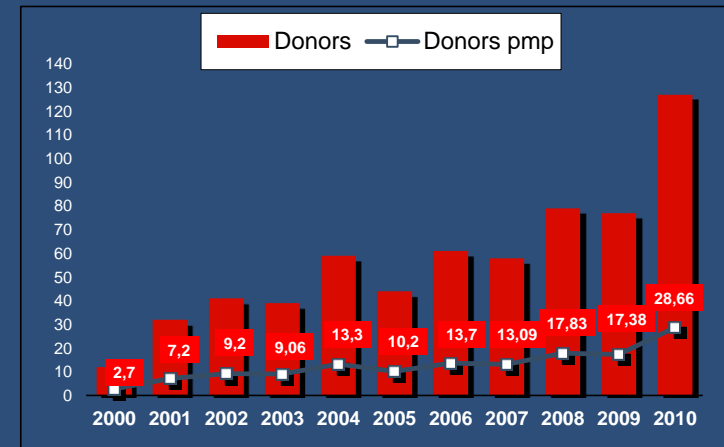
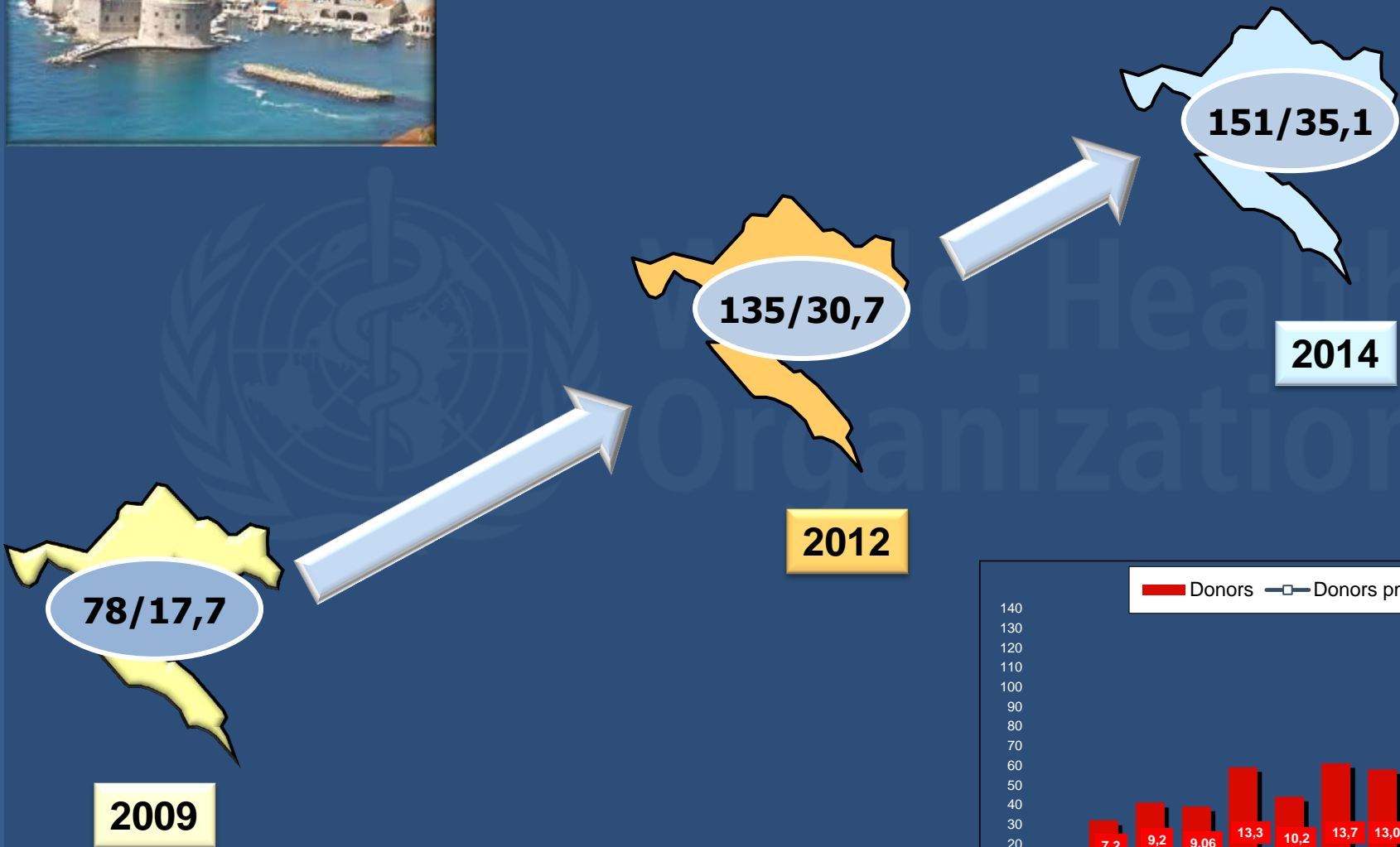
## Draft Resolution CM/Res(2015) on the role and training of critical care professionals in deceased donation

(  
Considering the critical role of professionals from intensive care units and emergency care departments in identifying possible organ donors and in facilitating the practice of donation after death;  
Considering that organ donation should be regarded as an option at the end-of-life, when all efforts to save the patient's life have been exhausted;

Recommends to the governments of States Parties to the Convention on the Elaboration of a European Pharmacopoeia:

- i. to provide a clear legal and ethical framework to guide healthcare professionals caring for potential organ donors. This framework should specify which practices facilitating donation after death are permitted within a given jurisdiction;
- ii. to help ensure, in cooperation with the relevant professional societies, that professionals working in intensive care units and emergency departments receive continuous training from the outset of their clinical practice. This training should include clear and harmonised guidance on the early identification and timely referral of possible organ donors, communication in critical situations and with relatives with a view to presenting the option of organ donation, donor evaluation, determination of death, and donor maintenance;
- iii. to encourage hospitals to incorporate organ donation as a routine activity in intensive care units and emergency care departments, with performance assessment, through quality indicators and audits;
- iv. to encourage the appointment of designated professionals in intensive care units and emergency departments where there is a potential for organ donation. This measure aims at supporting donation after death within those units and at facilitating the appropriate and timely referral of possible organ donors to donor transplant co-ordinators and/or relevant organ procurement organisations;
- v. to support the development of scientific and health services research in the field of donation after death within the intensive and emergency care community.

# CROACIA: A SMALL COUNTRY, 4,4 MILLIONS A HUGE INCREASE IN ORGAN DONORS RATE



✓ **Optimized brain-death**

✓ **Increase DCD**

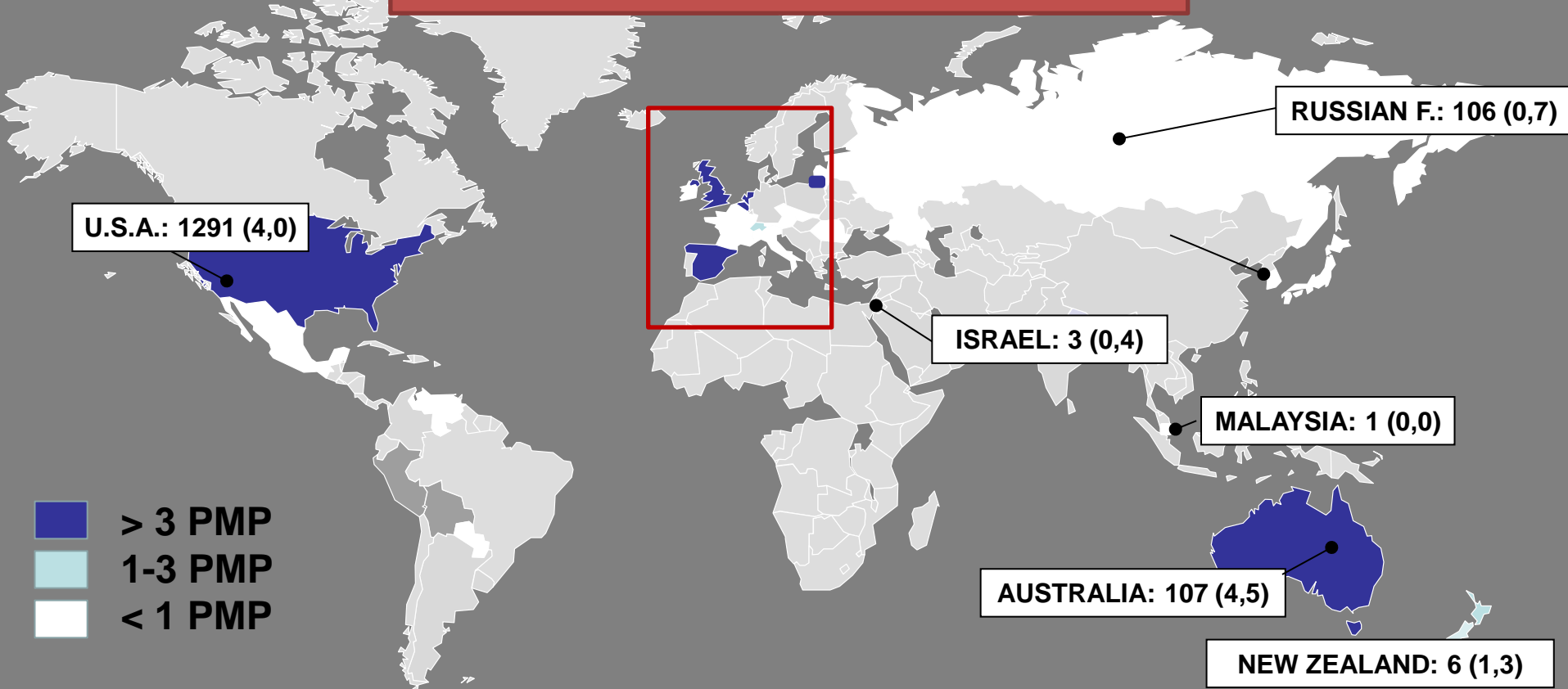


World Health  
Organization



# CARDIO CIRCULATORY ARREST DONORS (DCD) TOTAL NUMBER / (pmp). 2016

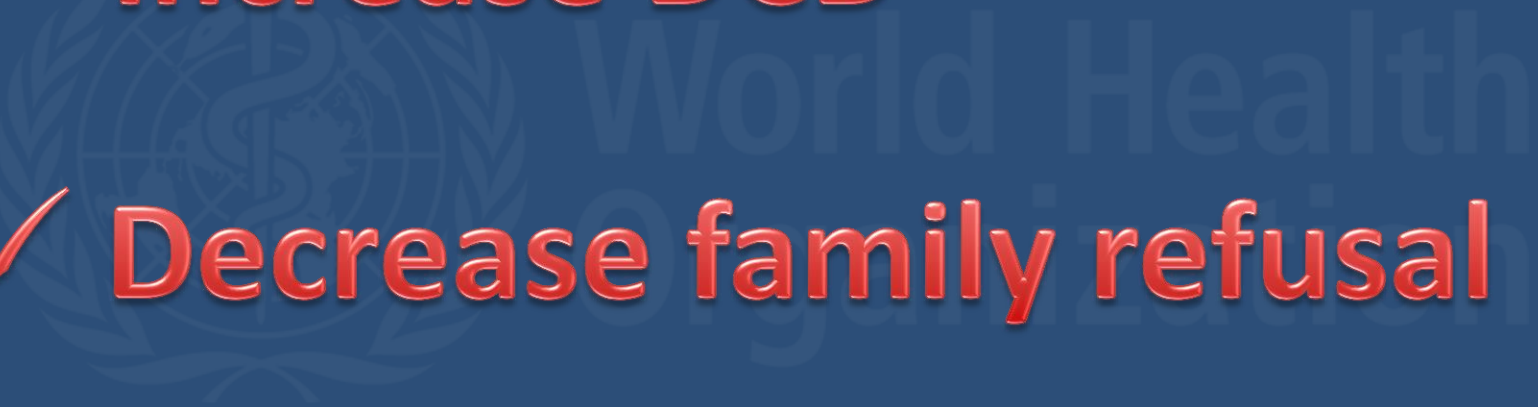
12,3 % of total deceased donors are DCD\*



✓ **Optimized brain-death**

✓ **Increase DCD**

✓ **Decrease family refusal**





MAIN FACTORS:

**WELL-TRAINED PROFESSIONALS**

+

**GOOD ORGANIZATION**

As Rafael Matesanz, Director of Spanish National Organization, recently reminded us, we should

**“...never blame the population. If people donate less, it must be something we have done wrong”**

THE LANCET, AUGUST 1<sup>st</sup> 2015



1,050 000



# 4 Ds programme

# DDDD programme

developing  
ceased

donation  
donor



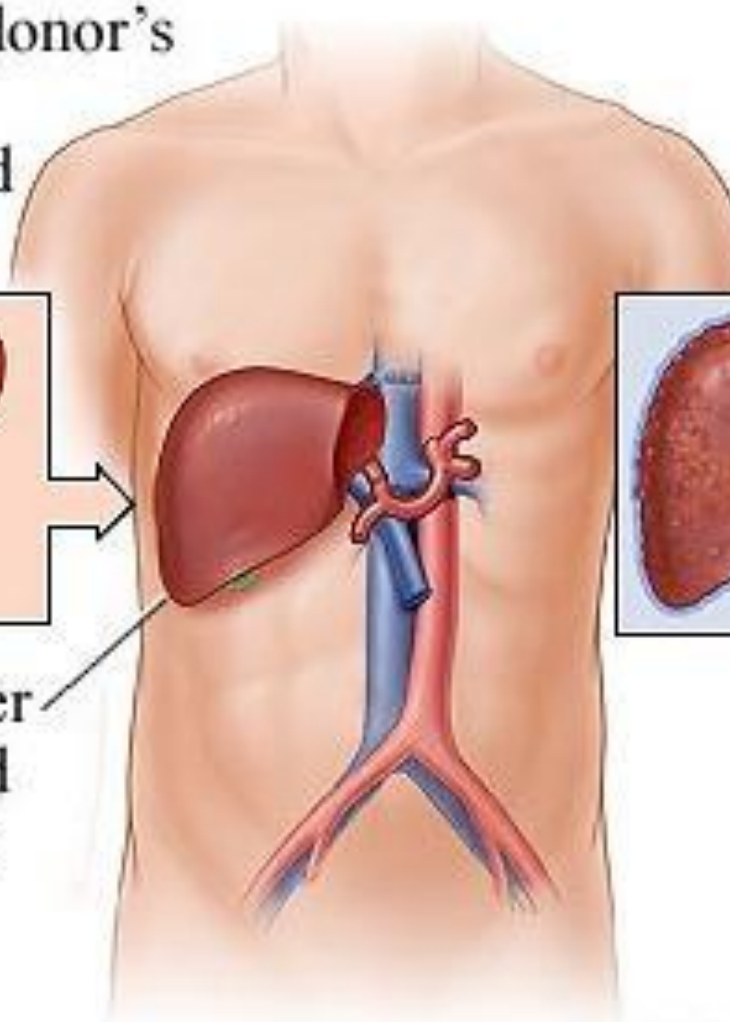
- ✓ **Optimized brain-death**
- ✓ **Increase DCD**
- ✓ **Decrease family refusal**
- ✓ **Living donation**

# Living donation

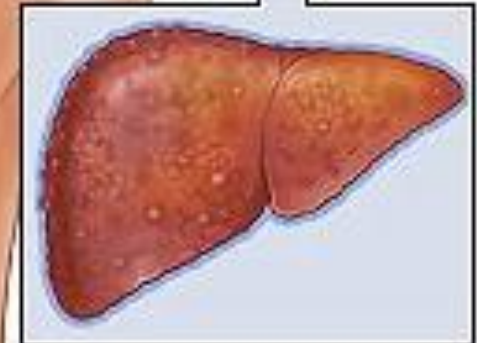
Portion of donor's liver to be transplanted



Donor's liver transplanted in recipient



Recipient's liver removed



© Healthwise, Incorporated

# Living donation

**Morbidity**

**Mortality**



# Mortality

It has been estimated that early and delayed death from transplant-related causes can be expected of approximately **one in every 200–500** right lobe donors, with permanent disability of a significant number of others.



Journal of Hepatology 51 (2009) 715–724

Journal of  
Hepatology

[www.elsevier.com/locate/jhep](http://www.elsevier.com/locate/jhep)

## Complications of right lobe living donor liver transplantation<sup>☆</sup>

James W. Marsh<sup>1</sup>, Edward Gray<sup>1</sup>, Roberta Ness<sup>2</sup>, Thomas E. Starzl<sup>1,\*</sup>

<sup>1</sup>Thomas E. Starzl Transplantation Institute, University of Pittsburgh, UPMC Montefiore, 3459 Fifth Avenue, Pittsburgh, PA 15213, USA

<sup>2</sup>University of Texas School of Public Health, Houston, TX, USA

A world map in shades of blue, centered on the Atlantic Ocean, with a grid of latitude and longitude lines. The map is the background for the main text.

**WHO relevant principles on human  
cell, tissue and organ transplantation**

# **Organ Transplantation and bioethics**

# Ethics

The fundamental ethical criterion is respect for the human being, to their inalienable rights, to the **person's dignity**







40<sup>th</sup> World Health Assembly, 1987



- ✓ Recognizing the scientific progress achieved in human organ transplants in many Member States
- ✓ Concerned at the trade for profit in human organs among living human beings
- ✓ Affirming that such trade is inconsistent with the most basic human values and contravenes the Universal Declaration of Human Rights and the spirit of the WHO Constitution
- ✓ Commending the measures taken by some Member States to regulate human organ transplants and their decision to develop a unified legal instrument to regulate these operations

## REQUESTS the Director-General:

1. To study, in collaboration with other organizations concerned, the possibility of developing appropriate **guiding principles** for human organ transplants
2. To report to the Health Assembly on the action taken in this regard.



**FIFTY-SEVENTH WORLD HEALTH ASSEMBLY**

**WHA57.18**

**Agenda item 12.14**

**22 May 2004**

# **Human organ and tissue transplantation**

1. **URGES Member States:**

(1) to implement effective national oversight of procurement, processing and transplantation of human cells, tissues and organs, including ensuring accountability for human material for transplantation and its traceability;

(2) to cooperate in the formulation of recommendations and guidelines to harmonize global practices in the procurement, processing and transplantation of human cells, tissues and organs, including development of minimum criteria for suitability of donors of tissues and cells;

(3) to consider setting up ethics commissions to ensure the ethics of cell, tissue and organ transplantation;

(4) to extend the use of living kidney donations when possible, in addition to donations from deceased donors;

(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;





63<sup>th</sup> World Health Assembly, 2010



**World Health  
Organization**

**WHO GUIDING PRINCIPLES  
ON HUMAN CELL, TISSUE AND ORGAN TRANSPLANTATION<sup>1</sup>**

<sup>1</sup> As endorsed by the sixty-third World Health Assembly in May 2010, in Resolution WHA63.22

---

# WHO Guiding Principles on Human Cell, Tissue and Organ Transplantation

**GP 5** Free donation and no purchase of human transplant as such, but cost & expenditures recovery

**GP 3**  
Maximizing DD  
Protecting LD

**GP 6**  
Promoting  
No advertising

**GP 7**  
Reasonability  
For transplant origin

**GP 8**  
Justifiable fees

**GP 2**  
Death  
No conflict

**GP 4**  
Protecting the  
incompetent

**GP 9**  
Equitable allocation

**GP 1**  
Consent DD

**Process**

**Donor**



**Recipient**

**GP 10** Monitoring long term outcomes. Quality and safety of procedures and products

**GP 11** Transparency, openness to scrutiny, anonymity



# WHO Guiding Principles on Human Cell, Tissue and Organ Transplantation

## Guiding Principle 3



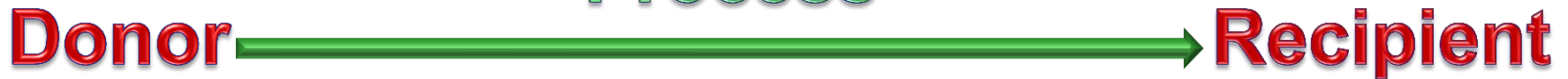
Donation from deceased persons should be developed to its maximum therapeutic potential, but adult living persons may donate organs as permitted by domestic regulations. In general living donors should be genetically, legally or emotionally related to their recipients.

Live donations are acceptable when the donor's informed and voluntary consent is obtained, when professional care of donors is ensured and follow-up is well organized, and when selection criteria for donors are scrupulously applied and monitored. Live donors should be informed of the probable risks, benefits and consequences of donation in a complete and understandable fashion; they should be legally competent and capable of weighing the information; and they should be acting willingly, free of any undue influence or coercion.

### Commentary on Guiding Principle 3

The Principle emphasizes the importance both of taking the legal and logistical steps needed to develop deceased donor programmes where these do not exist and of making existing programmes as effective and efficient as possible.

Process









ANGELES UNIVERSITY FOUNDATION MEDICAL CENTER

**DO YOU NEED A KIDNEY TRANSPLANT ?  
AVOID LONG TERM DIALYSIS COMPLICATIONS !**

**ASK YOUR NEPHROLOGIST      SEE A TRANSPLANT SURGEON  
CALL THE TRANSPLANT COORDINATOR    RAMIL - 0922-8739108**



HUMAN ORGAN AND TISSUES FOR TRANSPLANT PROGRAM (HOTTProg)  
INTERNATIONAL FOUNDATION FOR ORGAN TRANSPLANT, INC. (InFORT, Inc.)



# Transplant Tourism & Organ trafficking

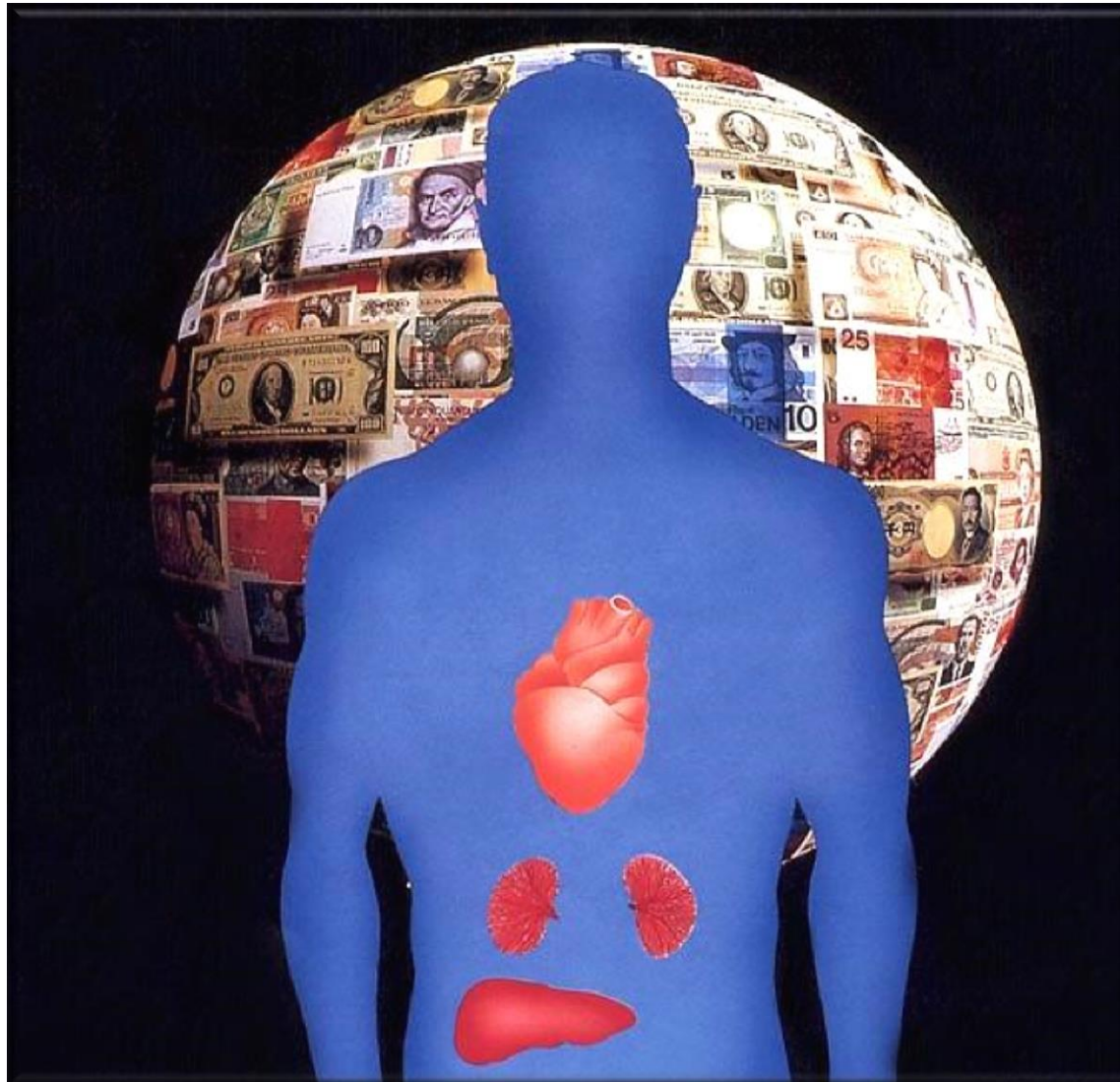


# ✓ Shortage of organs





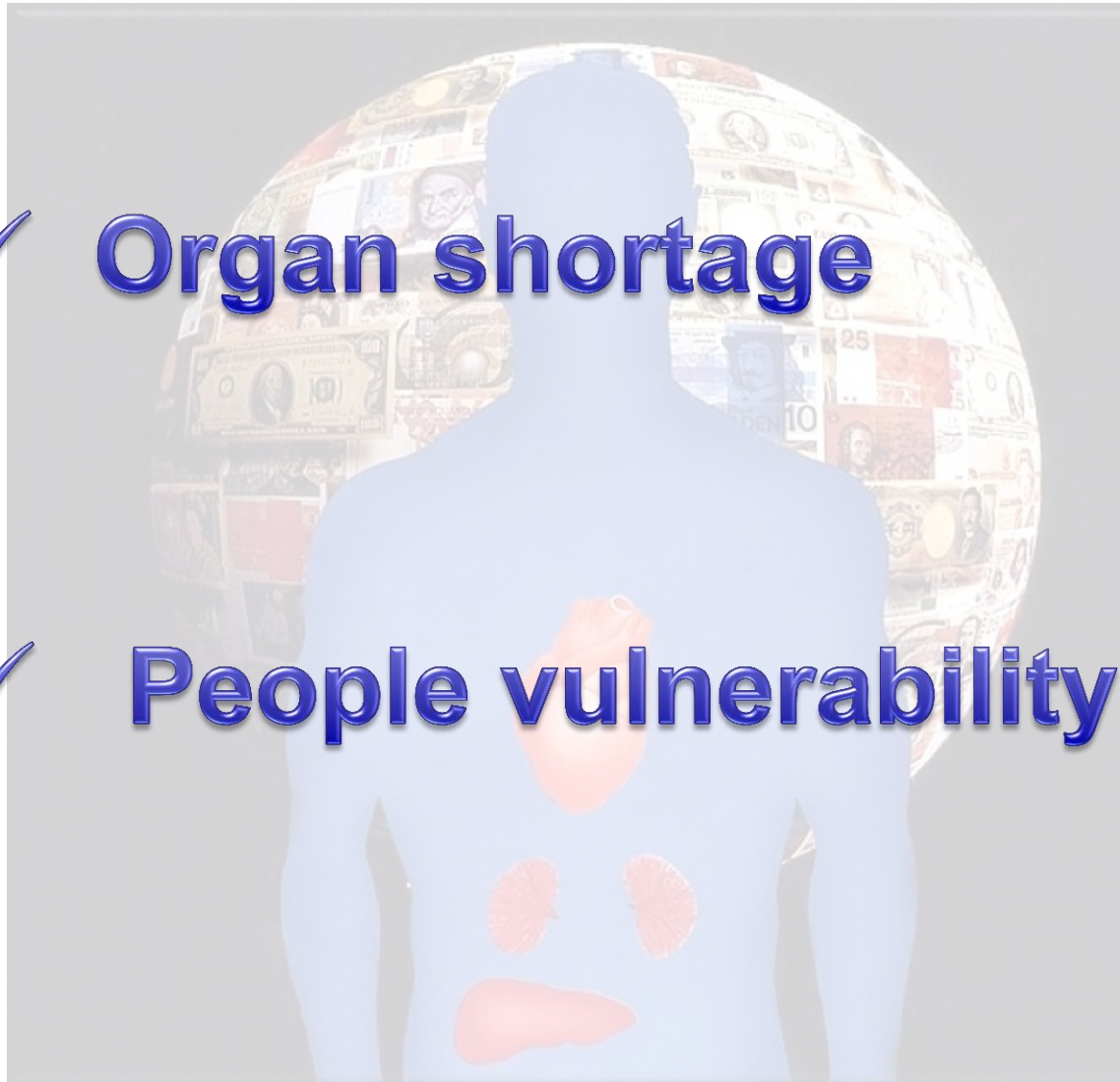
# Organ Trafficking. Reasons



# Organ Trafficking. Reasons

✓ **Organ shortage**

✓ **People vulnerability**





# People vulnerability





A world map in shades of blue, centered on the Atlantic Ocean, with a grid of latitude and longitude lines. The text 'Global migration' is overlaid in the center.

# Global migration

# People vulnerability







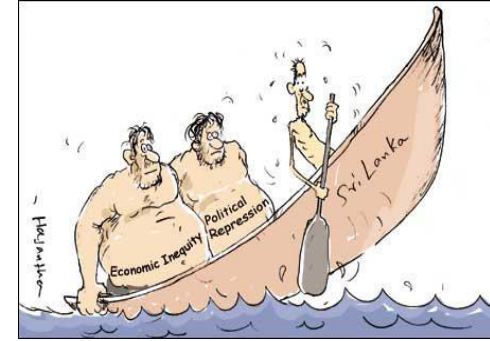
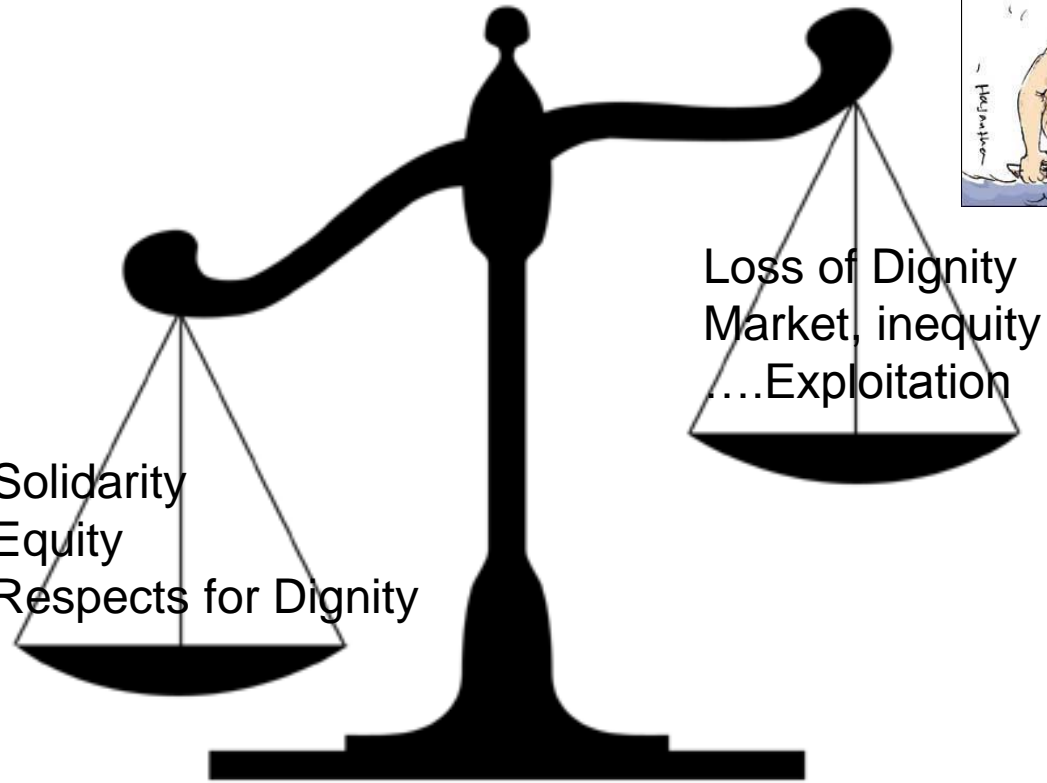




# Transplantation Progresses on a unsteady scale



Solidarity  
Equity  
Respects for Dignity



# Executive Board **Decision** EB136(2)

January 2015

Principles for global consensus on the donation and management of blood, blood components and medical products of human origin





(7) requested that the Director-General convene consultations with Member States and international partners, to support the development of global consensus on guiding ethical principles for the donation and management of the mentioned medical products of human origin; good governance mechanisms; and common tools to ensure quality, safety and traceability, as well as equitable access and availability, as applicable, to result in a document to be submitted to the Seventieth World Health Assembly for its consideration.





70<sup>th</sup> World Health Assembly, 2017



# 70<sup>th</sup> WHA, 22–31 May 2017

Agenda available at [http://apps.who.int/gb/e/e\\_wha70.html](http://apps.who.int/gb/e/e_wha70.html)



**World Health  
Organization**

**SEVENTIETH WORLD HEALTH ASSEMBLY**  
Provisional agenda item 13.2

**A70/19**  
**XX March 2017**

---

## **Principles on the donation and management of blood, blood components and other medical products of human origin**

**Report by the Secretariat**





# Common Principles for MPHO (1)

**1** **Governments are responsible** for ensuring the ethical and effective procurement, distribution and use of medical products of human origin. This responsibility includes the **obligation to develop and enforce regulations** to ensure the maximum possible level of safety, quality and efficacy, both within and across national borders.

**2** **Equity in donation** should be promoted by **engaging all segments of society** in efforts to meet the need for medical products of human origin.

**3** Outside clinical research and for the advancement of science, medical products of human origin **should be used** only in situations of **clinical utility** and in the **absence of alternative and affordable therapies** with a comparable or more favourable **balance of risks and benefits**.

**4** Biological materials **from living persons** for use as medical products of human origin should be taken only with the **donor's prior informed and voluntary consent**. When biological material **from a deceased person** is to be used as medical product of human origin, it is imperative to **verify** that the individual has provided his or her **prior consent or has not expressed objections** to be a donor, as mandated by national laws.

# Common Principles for MPHO (2)

**5** **Policies governing compensation** to persons who provide biological materials for use as medical products of human origin should seek to **guard against the exploitation of vulnerable individuals and promote equity in donation**. The best way to achieve these goals is to adhere to a **policy of financial neutrality**, in which persons who donate their biological materials for use as medical products of human origin should neither benefit nor lose financially as a result of the donation. Countries should ensure that the burden of donating these materials does not fall primarily on economically disadvantaged groups.

*The Health Assembly has acknowledged **altruistic voluntary and non-remunerated donation** as the cornerstone of safety and quality in medical products of human origin, and as a means to protect the donor against exploitation.*

*Payments, reimbursement or coverage of reasonable costs associated with donation, such as transport expenses or documented lost wages, remain consistent with that principle: just as **donors should not benefit financially from donation, it should not cause them any financial injury.***

# Common Principles for MPHO (3)

**6** Prospective and actual **donors** of human biological materials for use in medical products should be **protected against physical and psychosocial risks** to the fullest extent possible.

**7** Depending on the relevant product, and in addition to other information routinely provided when offering medical products of human origin to prospective recipients, **the human origin of the product should be disclosed** without compromising the confidentiality of the donor's identity.

**8** **Equity in access** to the benefits of medical products of human origin should be promoted by sustained efforts to **remove barriers** to access. Any waiting lists and allocation systems that are developed for medical products of human origin should be based on clinical criteria and ethical norms, not considerations of financial or social status.

**9** In order to **minimize the risk of harm to donors and recipients** and to protect the **stability and sustainability of services** for medical products of human origin, **all steps** in the development and use of medical products of human origin should be **fully traceable** and subject to **effective quality-management systems** and **vigilance & surveillance programmes**.

**10** **The organization and delivery of activities** related to medical products of human origin, as well as their **clinical results**, must be **transparent and open to scrutiny**, while ensuring that the confidentiality of donors / recipients is always protected and adheres to national laws.



## Newsroom

Headlines | All news | Search

Council of Europe

### Council of Europe Convention to combat trafficking in human organs

09/07/2014



Strasbourg, 09.07.2014 - The Committee of Ministers of the Council of Europe has adopted an international convention to make trafficking in human organs for transplant a criminal offence, to protect victims and to facilitate cooperation at national and international levels in order to prosecute more effectively those responsible for trafficking.

The Convention calls on governments to establish as a criminal offence the illegal removal of human organs from living or deceased donors:

- where the removal is performed without the free, informed and specific consent of the living or deceased donor, or, in the case of the deceased donor, without the removal being authorised under its domestic law;
- where, in exchange for the removal of organs, the living donor, or a third party, receives a financial gain or comparable advantage;
- where in exchange for the removal of organs from a deceased donor, a third party receives a financial gain or comparable advantage.

The Convention also provides protection measures and compensation for victims as well as prevention measures to ensure transparency and equitable access to transplantation services.

#### Press Releases

16 September 2014  
Congress visit to monitor local and regional democracy in Greece

12 September 2014  
Human rights abuses in Crimea need to be addressed

10 September 2014  
PACE President and Norwegian Speaker back plan for a European Day to remember the victims of hate cr...

[More Press Releases](#)

#### For the press

- ▶ [Speeches](#)
- ▶ [Human Rights Comments](#)
- ▶ [Files](#)

#### Diaries

- ▶ [The week in brief](#)

#### Resources

- ▶ [Web TV](#)
- ▶ [Photo galleries](#)
- ▶ [Podcasts](#)



World Health  
Organization



Organization

and innovation

and safety



2017



**Statement of the Pontifical Academy of Sciences Summit  
on Organ Trafficking and Transplant Tourism**

Vatican, February 2017



[http://www.pas.va/content/accademia/en/events/2017/organ\\_trafficking/statement.html](http://www.pas.va/content/accademia/en/events/2017/organ_trafficking/statement.html)



# Recommendations from the PAS SUMMIT

1. That all nations and all cultures recognize human trafficking for the purpose of organ removal and organ trafficking, which include the use of organs from executed prisoners and payments to donors or the next of kin of deceased donors, as crimes that should be condemned worldwide and legally prosecuted at the national and international level.
2. That religious leaders encourage ethical organ donation and condemn human trafficking for the purpose of organ removal and organ trafficking.
3. That nations provide the resources to achieve self-sufficiency in organ donation at a national level—with regional cooperation as appropriate—by reducing the need for transplants through preventive measures and improving access to national transplant programs in an ethical and regulated manner.
4. That governments establish a legal framework that provides an explicit basis for the prevention and prosecution of transplant-related crimes, and protects the victims, regardless of the location where the crimes may have been committed, for example by becoming a Party to the Council of Europe Convention against Organ Trafficking.
5. That healthcare professionals perform an ethical and medical review of donors and recipients that takes account of their short- and long-term outcomes.
6. That governments establish registries of all organ procurement and transplants performed within their jurisdiction as well as all transplants involving their citizens and residents performed in another jurisdiction, and share appropriate data with international databanks.

# Recomendations from the PAS SUMMIT

7. That governments develop a legal framework for healthcare and other professionals to communicate information about suspected cases of transplant-related crimes, while respecting their professional obligations to patients.
8. That responsible authorities, with the support of the justice system, investigate transplants that are suspected of involving a crime committed within their jurisdiction or committed by their citizens or residents in another jurisdiction.
9. That responsible authorities, insurance providers, and charities not cover the costs of transplant procedures that involve human trafficking for the purpose of organ removal or organ trafficking.
10. That healthcare professional organizations involved in transplantation promote among their members awareness of, and compliance with, legal instruments and international guidelines against organ trafficking and human trafficking for the purpose of organ removal.
11. That the World Health Organization, the Council of Europe, United Nations agencies, including the United Nations Office on Drugs and Crime, and other international bodies cooperate in enabling a comprehensive collection of information on transplant-related crimes, to yield a clearer understanding of their nature and scope and of the organization of the criminal networks involved.



## General Assembly

Distr.: General  
25 September 2017

---

Seventy-first session  
Agenda item 106

### Resolution adopted by the General Assembly on 8 September 2017

*[without reference to a Main Committee (A/71/L.80 and Add.1)]*

- 71/322. Strengthening and promoting effective measures and international cooperation on organ donation and transplantation to prevent and combat trafficking in persons for the purpose of organ removal and trafficking in human organs**



(d) Ensuring that the removal of human organs from both deceased and living persons, as well as the transplantation of human organs, exclusively take place in centres specifically authorized by the relevant national health authorities and are not performed outside the framework of domestic transplantation systems or in situations where the transplantation is performed in breach of the guiding principles or national transplantation laws or rules;

(e) Developing and strengthening regulatory oversight of the medical facilities and medical professionals involved in the transplantation of human organs, including through control measures, such as periodic audits;

(f) Setting specific processes and criteria for the authorization of every organ removal and transplantation procedure;

(g) Developing registries, with due regard to professional confidentiality and personal data protection in respect of both donors and recipients, that include information regarding each organ recovery and transplantation procedure and follow-up with living donors and recipients of organs, with the purpose of ensuring the transparency of practices, traceability and the quality and safety of human organs;

10. Requests the World Health Organization, in collaboration with the United Nations Office on Drugs and Crime and the Office of the United Nations High Commissioner for Human Rights, among other relevant bodies, to develop international guidelines on the health, criminal and human rights aspects relating to trafficking in persons for the purpose of organ removal and trafficking in human organs;

12. *Also requests* the United Nations Office on Drugs and Crime, in collaboration with other entities of the United Nations system, including the World Health Organization, to continue providing capacity-building and technical assistance to States, upon request, to assist them in strengthening national capacities to effectively prevent and combat trafficking in persons for the purpose of organ removal and trafficking in human organs;

# 2007

## Organ Trafficking

**Growing demand fuels  
black market organ trade**

*5-10% of organ transplants result from  
some form of commercialization  
'It's ever growing, it's a constant struggle.'*

4,200-8,500 kidneys per year (possible  
underestimation)

Extraordinarily lucrative business:  
recipients pay up to \$70,000-160,000 per  
organ





# NGO







Where To?



View Map



PASSPORT  
Donor

PASSPORT  
Recipient



World Health  
Organization



# Advantages

1. It is not a professional initiative but a **governmental** one, supported by a WHA resolution.
2. **Recipients** would have the guarantee of an ethical/official transplant without any abuse of vulnerable.
3. **Donor** would have the guarantee of official protection and follow-up.
4. **Global data** on donation-transplantation activity could be collected to design, implement and provide evaluation of programmes.

# Future project: WHO Transplant Certificate

## Draft mock-up



WHO Transplant Registry  
**KD L GR 005 20171225 001**

*This is to certify that the (organ) transplant performed on (date) at the (hospital) in (country) has been officially registered by the World Health Organization (WHO) in accordance with the Agreement between (country) and WHO.*

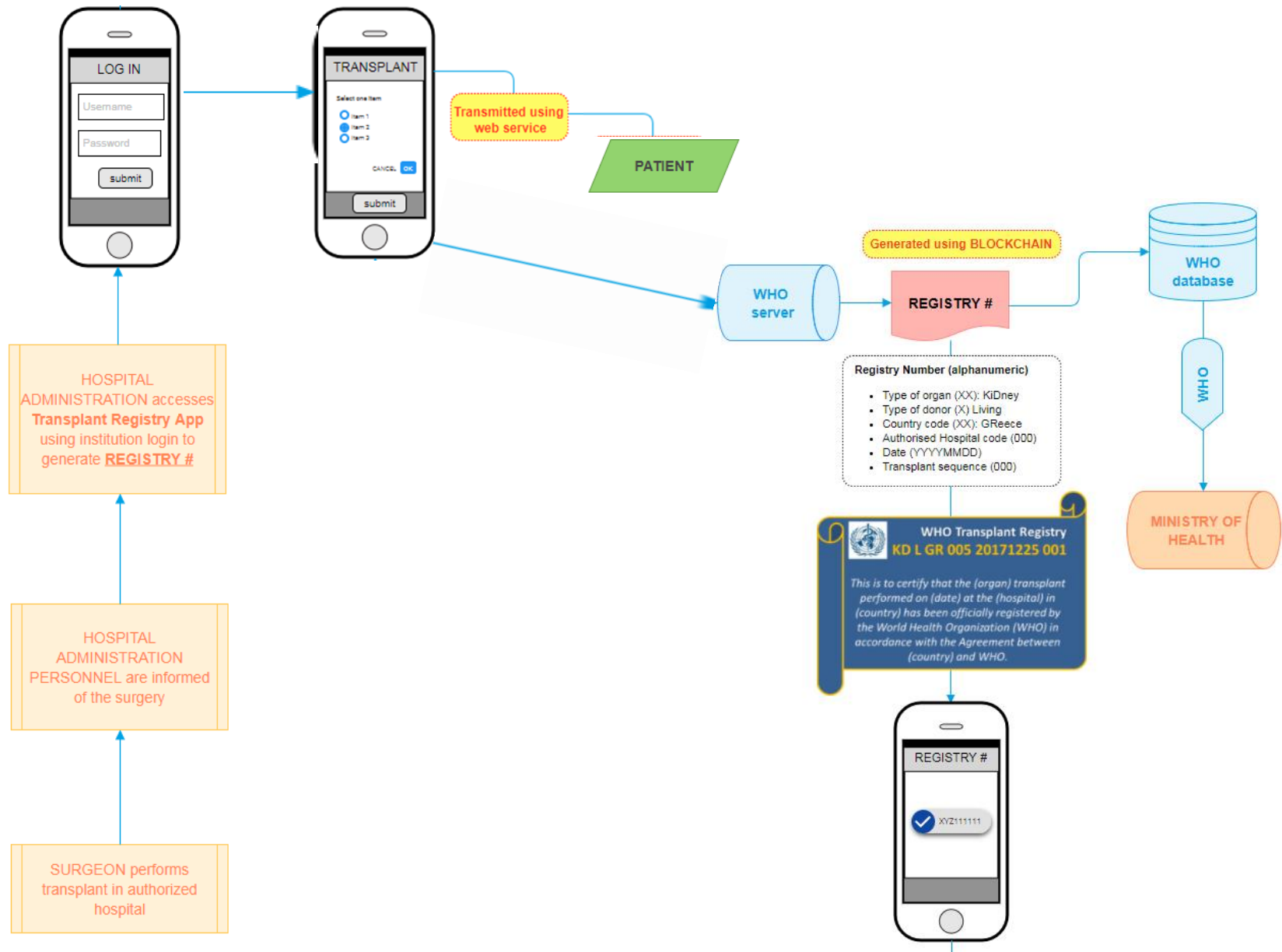
### Registry Number (alphanumeric)

- Type of organ (XX): **KiD**ney
- Type of donor (X) **L**iving
- Country code (XX): **GR**eece
- Authorised Hospital code (000)
- Date (YYYYMMDD)
- Transplant sequence (000)

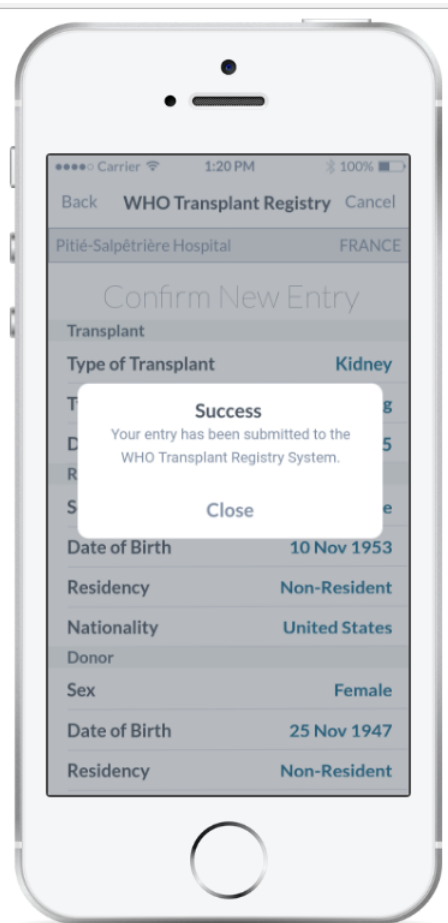
# SECURITY







<https://marvelapp.com/6438894/screen/31869562>





# NEXT STEPS

---

- ✓ **Final prototype**
- ✓ **Simulation**
- ✓ **Trial : 3-4 countries**
- ✓ **Implementation**



EMERGENCY



174 KM AHEAD

**Thank you  
for your attention**



**World Health  
Organization**