

ORGAN AND TISSUE DONATION IN SOUTH AFRICA: WORKSHOP FEEDBACK

David Thomson

On behalf of steering committee

Department of Critical Care and Transplant Unit

Groote Schuur Hospital




UNIVERSITY OF CAPE TOWN
UNIVERSITEIT KAPSTAD - UNIVERSITEIT VAN KAAPSTAD

ISODP



PRE-WORKSHOP

- Proposal
- Planning group
- Presentation to Department of Health
- Formation of a Steering Committee
- Multiple conference calls



Opportunity to Create and Set in Motion a Plan to Increase Organ Donation in South Africa

24 October 2018

Presentation to Ministry of Health

SO MANY AREAS THAT COULD BE BETTER

- Spoilt for choice in terms of where we can make improvements
- Also allows us to point the finger at other areas and happily continue working in our own little box
- But we are all working within a system that is grossly underperforming

POINT 1: FOCUSED ON DECEASED
DONATION

WHY DECEASED DONATION

- Improvements here have exponential improvements to help more patients access transplants
- It is something which can get much better with limited investment and simply better coordination
- There is infrastructure already available across different areas
 - Public, Private, Solid organ, tissue banking, eye bank, NGOs
- No risk to the donor



Organ Donation and Transplantation Activities



Last data available: September 2017



2005

1.56 pmp

Data presented in absolute number and rate per million inhabitants (pmp) (-): Data Not Available or Not Applicable		📍 South Africa
ACTUAL DECEASED DONORS (DD)	74 (1.56)	
ACTUAL DD AFTER BRAIN DEATH (DBD)	(-)	
ACTUAL DD AFTER CIRCULATORY DEATH (DCD)	(-)	
TOTAL KIDNEY TRANSPLANTS	232 (4.89)	
DECEASED KIDNEY TRANSPLANTS	148 (3.12)	
LIVING KIDNEY TRANSPLANTS	84 (1.77)	
TOTAL LIVER TRANSPLANTS	14 (0.3)	
DECEASED LIVER TRANSPLANTS	14 (0.3)	
LIVING LIVER TRANSPLANTS	(-)	
HEART TRANSPLANTS	(-)	
LUNG TRANSPLANTS	4 (0.08)	
PANCREAS TRANSPLANTS	7 (0.15)	
SMALL BOWEL TRANSPLANTS	(-)	
TOTAL ORGAN TRANSPLANTS	257 (5.42)	



2016

1.31 pmp

Data presented in absolute number and rate per million inhabitants (pmp) (-): Data Not Available or Not Applicable		📍 South Africa
ACTUAL DECEASED DONORS (DD)		72 (1.31)
ACTUAL DD AFTER BRAIN DEATH (DBD)		71 (1.29)
ACTUAL DD AFTER CIRCULATORY DEATH (DCD)		1 (0.02)
TOTAL KIDNEY TRANSPLANTS		254 (4.62)
DECEASED KIDNEY TRANSPLANTS		136 (2.47)
LIVING KIDNEY TRANSPLANTS		118 (2.15)
TOTAL LIVER TRANSPLANTS		66 (1.2)
DECEASED LIVER TRANSPLANTS		51 (0.93)
LIVING LIVER TRANSPLANTS		15 (0.27)
HEART TRANSPLANTS		25 (0.45)
LUNG TRANSPLANTS		14 (0.25)
PANCREAS TRANSPLANTS		4 (0.07)
SMALL BOWEL TRANSPLANTS		(-)
TOTAL ORGAN TRANSPLANTS		363 (6.6)



2005

9.06 pmp

Data presented in absolute number and rate per million inhabitants (pmp) (-): Data Not Available or Not Applicable		📍 Brazil
ACTUAL DECEASED DONORS (DD)		1,688 (9.06)
ACTUAL DD AFTER BRAIN DEATH (DBD)		1,688 (9.06)
ACTUAL DD AFTER CIRCULATORY DEATH (DCD)		(-)
TOTAL KIDNEY TRANSPLANTS		3,388 (18.18)
DECEASED KIDNEY TRANSPLANTS		1,878 (10.08)
LIVING KIDNEY TRANSPLANTS		1,510 (8.1)
TOTAL LIVER TRANSPLANTS		1,059 (5.68)
DECEASED LIVER TRANSPLANTS		872 (4.68)
LIVING LIVER TRANSPLANTS		187 (1)
HEART TRANSPLANTS		(-)
LUNG TRANSPLANTS		(-)
PANCREAS TRANSPLANTS		328 (1.76)
SMALL BOWEL TRANSPLANTS		(-)
TOTAL ORGAN TRANSPLANTS		4,775 (25.62)



2016

14.23 pmp

Data presented in absolute number and rate per million inhabitants (pmp) (-): Data Not Available or Not Applicable		📍 Brazil
ACTUAL DECEASED DONORS (DD)		2,983 (14.23)
ACTUAL DD AFTER BRAIN DEATH (DBD)		2,983 (14.23)
ACTUAL DD AFTER CIRCULATORY DEATH (DCD)		(-)
TOTAL KIDNEY TRANSPLANTS		5,600 (26.72)
DECEASED KIDNEY TRANSPLANTS		4,400 (20.99)
LIVING KIDNEY TRANSPLANTS		1,200 (5.73)
TOTAL LIVER TRANSPLANTS		1,880 (8.97)
DECEASED LIVER TRANSPLANTS		1,723 (8.22)
LIVING LIVER TRANSPLANTS		157 (0.75)
HEART TRANSPLANTS		357 (1.7)
LUNG TRANSPLANTS		92 (0.44)
PANCREAS TRANSPLANTS		134 (0.64)
SMALL BOWEL TRANSPLANTS		1 (0)
TOTAL ORGAN TRANSPLANTS		8,064 (38.47)



OutcomeDriven TTS2018 | MADRID SPAIN

27th International Congress of The Transplantation Society

www.tts2018.org

Improving Patient Outcomes -
Organ Donation

Monday July 2, 2018, 11:45-13:15



Rafael Matesanz, Spain

Founder and Director,
Spanish National Transplant Organization (ONT)

Challenges to Improving
Deceased Organ Donation -
Past, Present and Future

“It is not the fault of the population not to realise the full potential of deceased organ donation. It is a reflection of the health care system.”

WHAT DID WE DO?

- Environmental scan
 - What is the current state of affairs
- Pre-workshop survey
 - Transplant centres
 - Referral agents
- Hired a process consultant and identified key speakers

WORKSHOP PROGRAM

- Welcome
- Challenge address
- Environmental scan and SATiBA report
- International perspectives on systems change
- Working groups

TOPICS IDENTIFIED

- Professional education and practice
- Data collection
- Organ donation conversion: Consent rates and practice
- Legislation and Policy
- Organ donation potential: Identification and referral
- Foundational system development
- Public awareness

TABLE COMPOSITION

- Administrators
- Department of Health
- Legal
- NGOs
- Tissue banks
- Eye banks
- Transplant coordinators
- Clinicians

OUTLINE

- Identify key priorities in your area
- What is going well in this area
- TV Interview in 2025 – What's happening now and how has it changed
- Outline a few important steps to achieve this change
- “realistic stretch”



DAY #2

- Reworked own ideas
- Commented on other priority areas
- Developed a shared vision for moving forward
- Discussed a research listening post

HIGHLIGHTS

- Professional education
 - Training of transplant ambassadors
- Standardized data reporting
 - Ongoing quality assurance, accountability and transparency
- The need for a national coordinating body
 - Ability of professional societies to generate guidelines
- Integration with Department of Health
 - NHI is an opportunity

HIGHLIGHTS CONTINUED

- Organ and tissue donation can work better together
 - To create a culture of donation
 - Required referral
- NGOs and media can link more effectively with transplant centres
 - Donor focus

NEXT STEPS



Just a start



Meeting report



Continuation and building
of projects identified



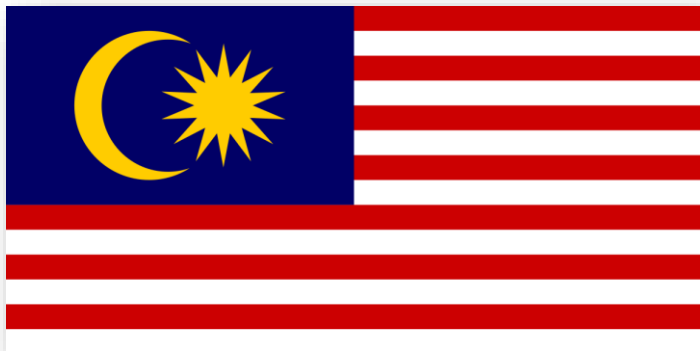
A better system

THANK YOU



QUESTIONS

Many possible solutions

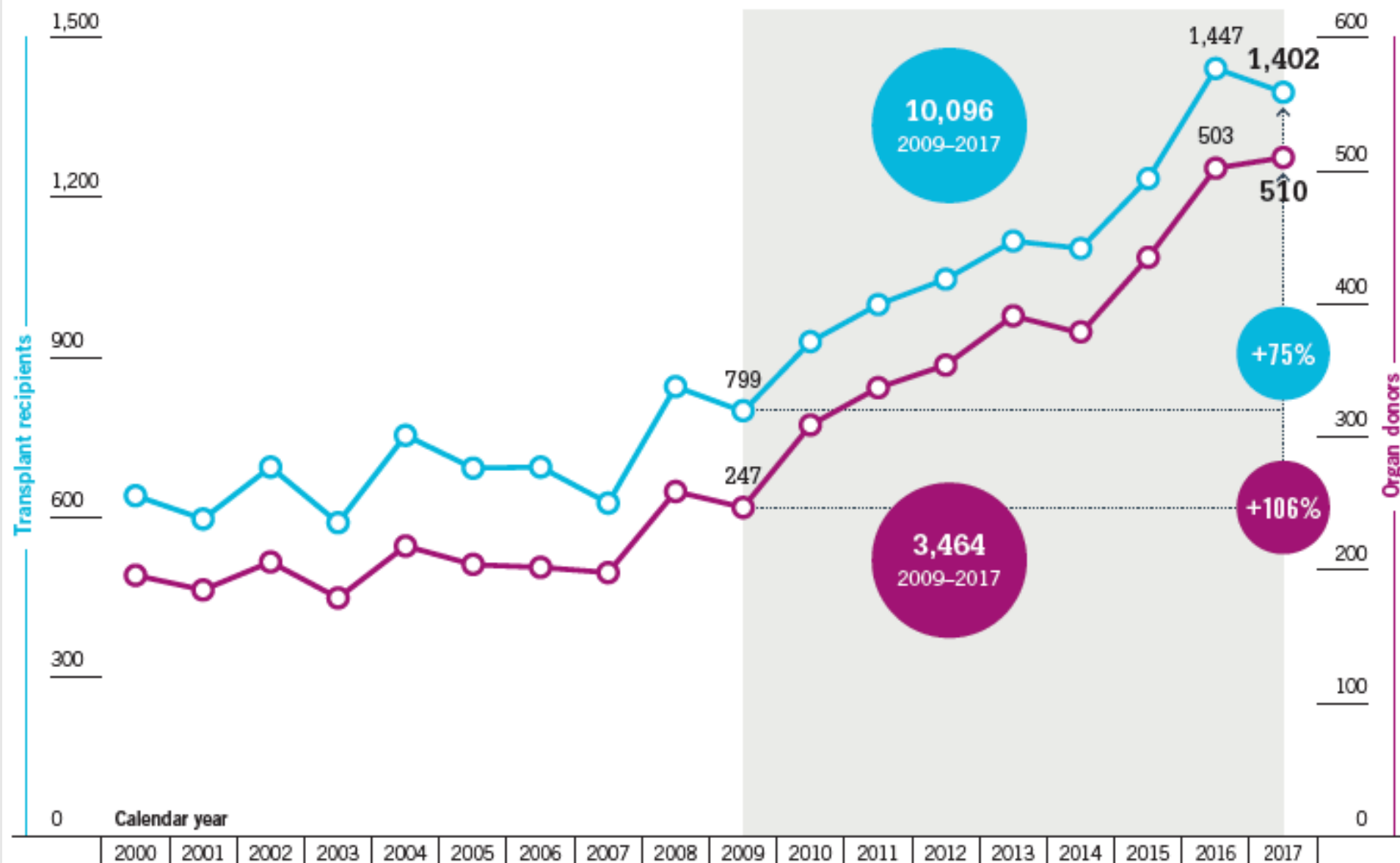




SOUTH AFRICAN RENAL REGISTRY Annual Report 2015

MR Davids, N Marais and JC Jacobs

Deceased organ donors and transplant recipients 2000–2017



Factors influencing deceased organ donation consent rates in South Africa

Bookholane H



Department of Surgery, University of
Cape Town Health Sciences Faculty,
Division of Transplant Surgery,
Groote Schuur Hospital



PRELIMINARY FINDINGS

- 74 approaches in state vs 9 in private
- Consent rate in state 23% vs 55% in private
- State referrals come from emergency units – 70% of time
- In both sectors 70% of referrals needed immediate fluid resuscitation with 1 litre of fluid
- Units were overcrowded and busy
- Variations in who brings up organ donation discussion with the family and knowledge levels about the prognosis

POINT 2: WE NEED DATA

SATS AND SATIBA



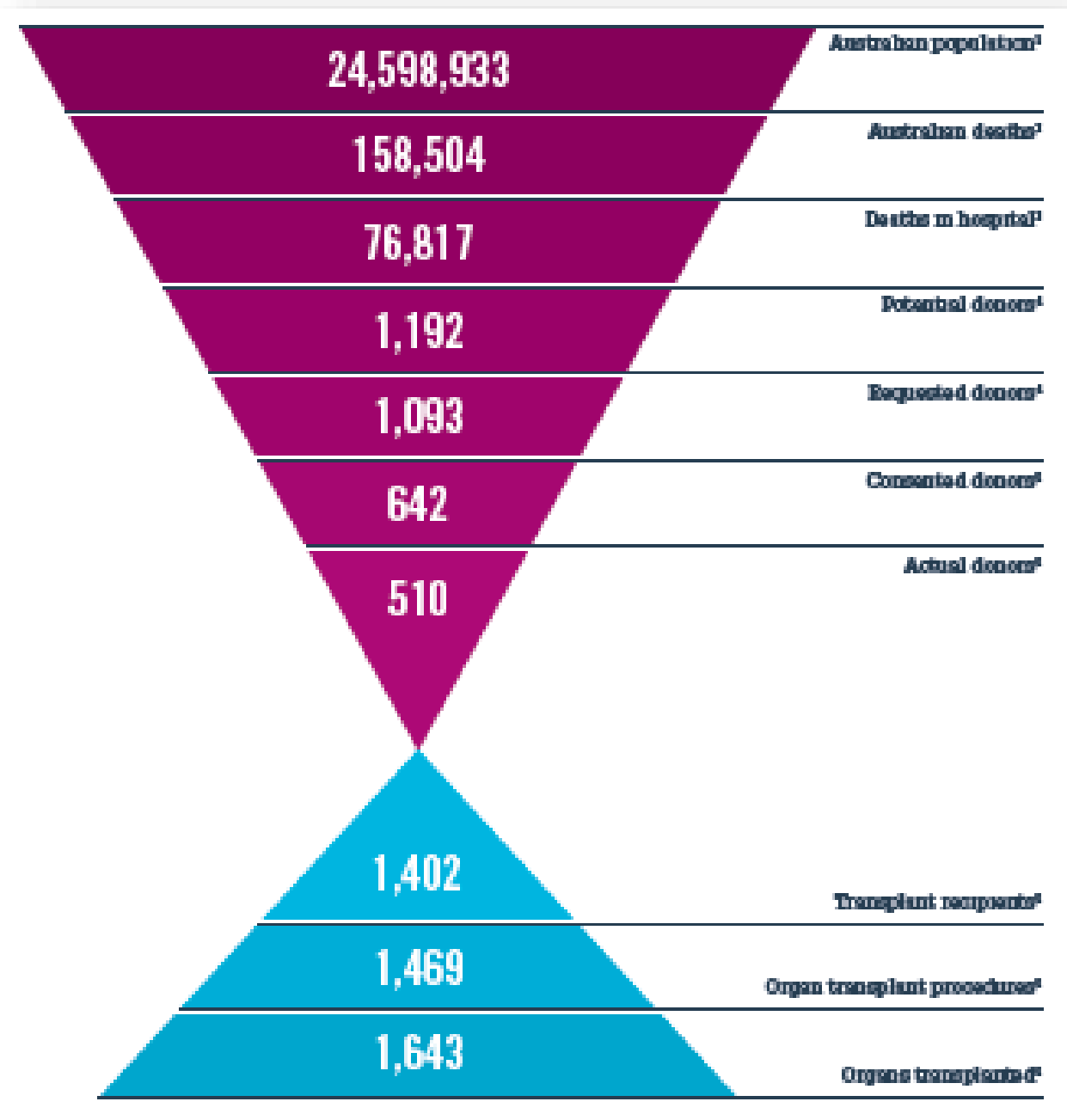
CHANGING & IMPROVING
SOUTH AFRICA'S TRANSPLANT FUTURE

28th SATS & 5th SATiBA
CONGRESS

6 - 8 September 2019

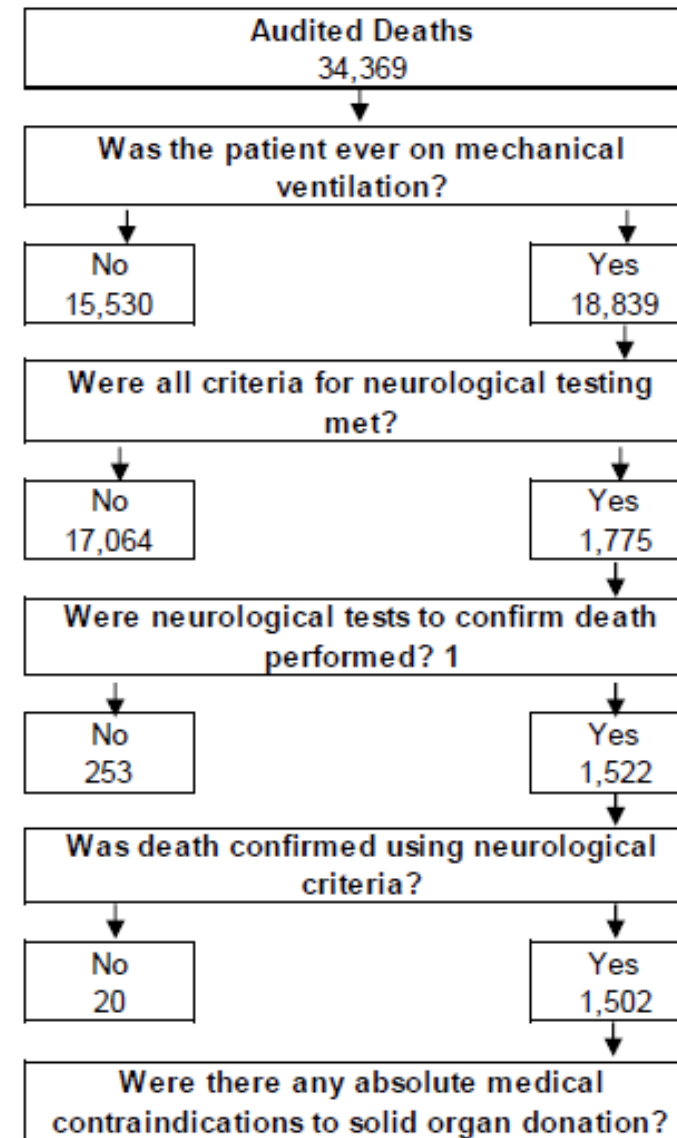
KRYSTAL BEACH HOTEL
GORDONS BAY • CAPE TOWN

Deaths in Australia

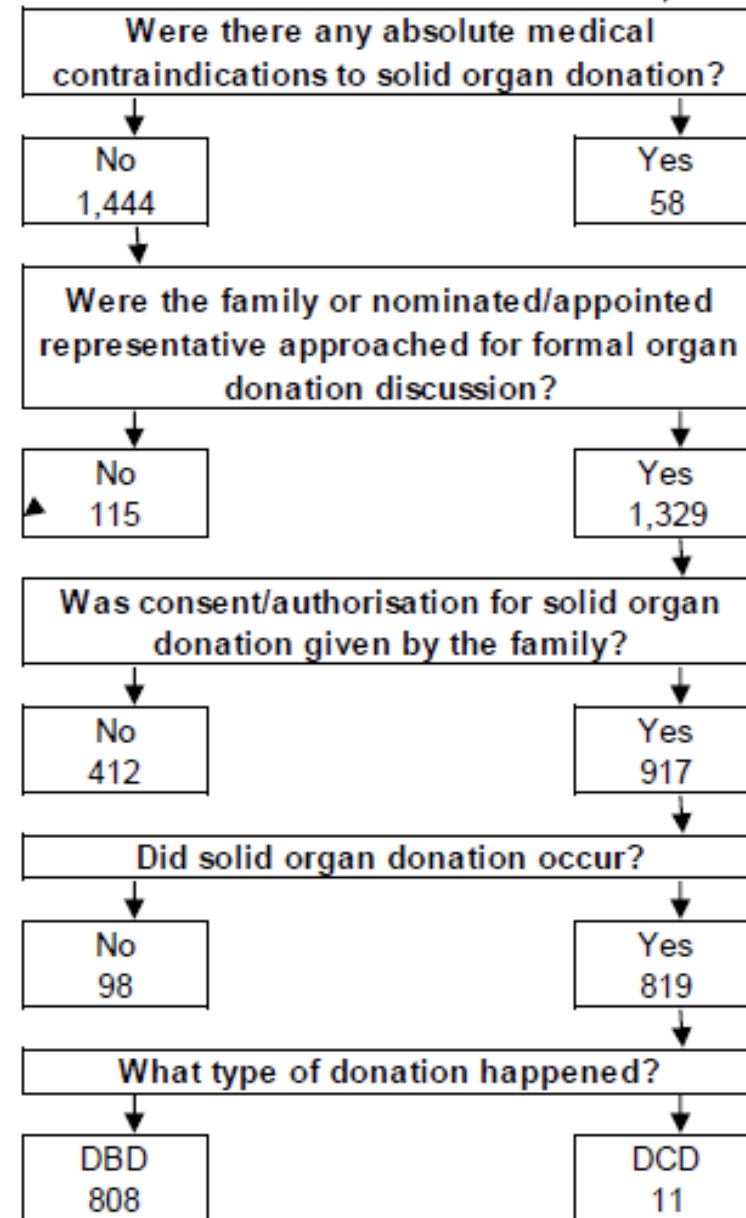


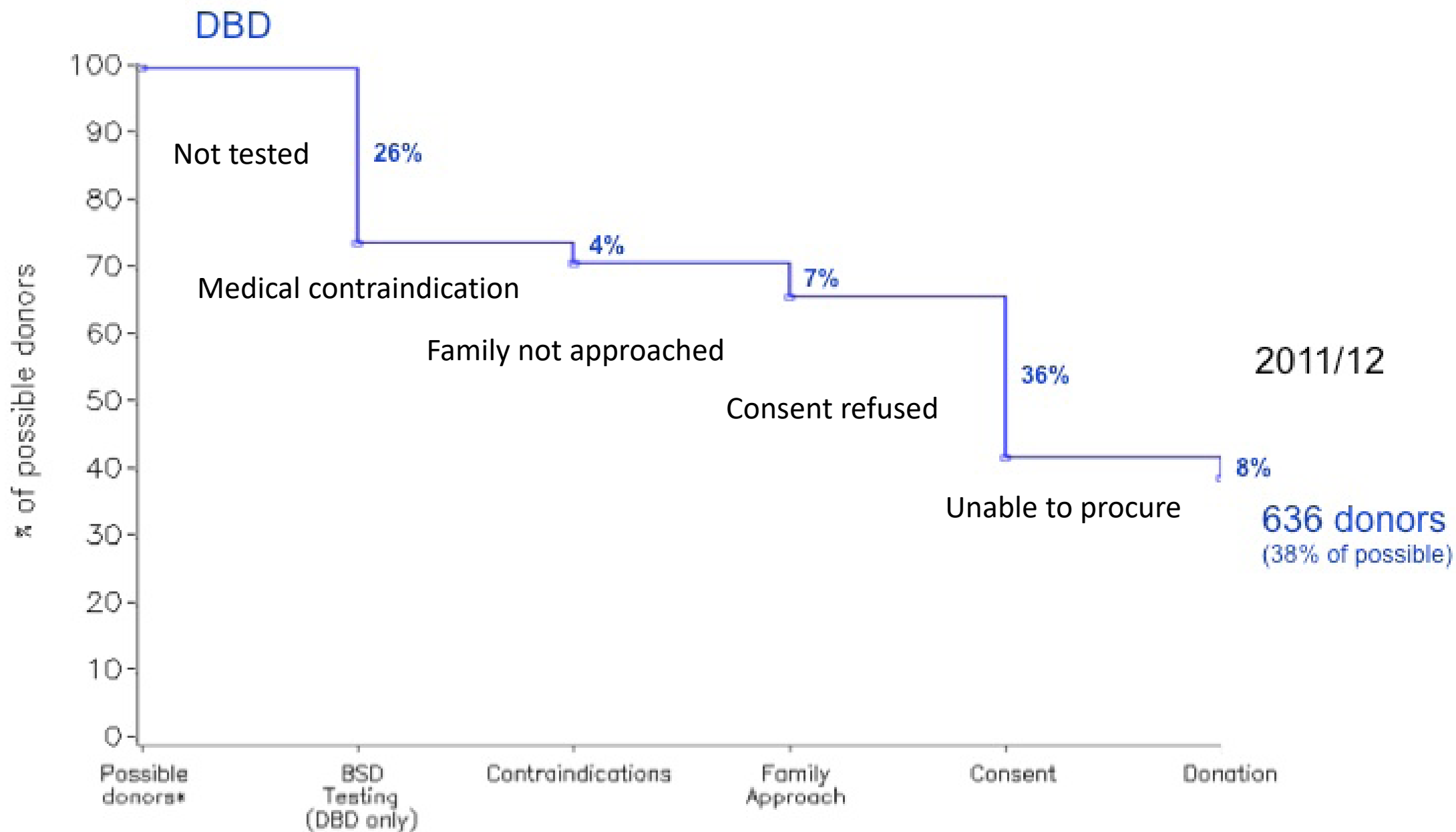
Potential Donor Audit

Figure 1 Donation after brain death



Potential Donor Audit







STATE AND PRIVATE

- Both systems are underperforming
- NHI is an opportunity

POINT 3: EXPLORING ORGAN DONATION IS A MARKER OF GOOD END OF LIFE CARE

Need to create an environment for it to take place routinely

Consent





BRAINSTEM DEATH CERTIFICATION

Case number: 12345678 Hospital number: 987654321

Doctor 1: [Signature]

Prerequisites

Coma, irreversible and cause known ☒

Normothermia ($> 36^{\circ}\text{C}$) ☒

Systolic blood pressure $> 90\text{ mmHg}$ ☒

Significant metabolic, electrolyte, endocrine abnormally excluded ☒

Sedative/analgesic/neuromuscular drug effect excluded ☒

Examination

Pupils fixed and non-reactive ☒

Absent corneal reflex ☒

No gag reflex ☒

Absent cough reflex on deep suctioning down tracheal tube ☒

No facial grimace to supra-orbital pain ☒

Absence of motor response in all limbs (spinal reflexes may persist) ☒

Oculocephalic (cold caloric) reflex absent ☒

Apnoea testing - no spontaneous respiration ☒

Doctor 1: [Signature]

Doctor 2: [Signature]

Name: _____ HPCSA Number: _____

Signature: _____ Date and time: _____

LifeSource

ORGAN, EYE AND TISSUE DONATION



ISODP ADVISORY COMMITTEE

- Susan Gunderson
 - CEO Lifesource - America
 - President of ISODP

ISODP ADVISORY COMMITTEE

- Kimberly Young
- Past CEO – Canadian Council for Donation & Transplantation, Canadian Blood Services



ISODP ADVISORY COMMITTEE



- Howard Nathan
 - CEO Gift of Life
 - Transplant Coordinator
 - Highest performing American OPO
 - 46 000 transplants in 40 years



GIFT^{of} LIFE
DONOR PROGRAM
THE REGION'S ORGAN & TISSUE TRANSPLANT NETWORK

Organs for Transplants

A report from the Organ Donation Taskforce



Working in partnership with

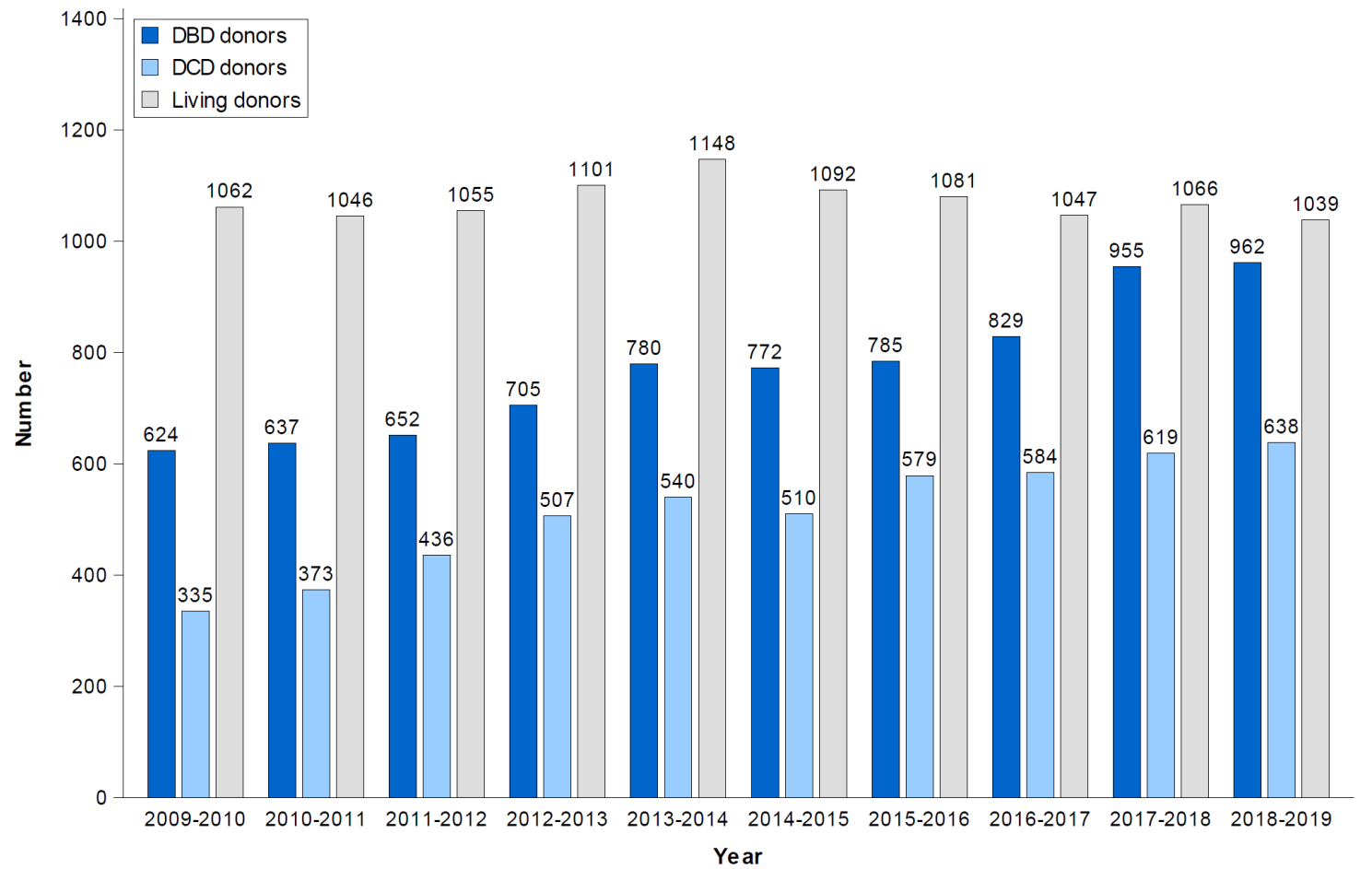
Organ Donation and Transplantation

Activity Report 2017/18



DONOR SOURCE - UK

Figure 2.2 Number of deceased and living donors in the UK, 1 April 2009 - 31 March 2019



POINT 4: SETTING GOALS

THANK YOU



NATIONAL DEPARTMENT OF HEALTH



health

Department:

Health

REPUBLIC OF SOUTH AFRICA

2017

AUSTRALIAN DONATION AND TRANSPLANTATION ACTIVITY REPORT



In 2017

1,675

lives
transformed by

510

deceased organ
donors and

273

living organ
donors



10,000+

transplant recipients since 2009

The number of organ transplant recipients under Australia's program to increase organ and tissue donation for transplantation surpassed 10,000 in 2017.

Thanks to the generosity of donors and their families, donation and transplantation outcomes have increased substantially since 2009.

Since the program started 3,464 deceased organ donors and their families have benefited 10,096 transplant recipients.

Over this time, the number of deceased organ donors has more than doubled with 510 donors in 2017 compared with 247 in 2009. The number of organ transplant recipients has increased by 75% with 1,402 Australians receiving a life-saving transplant from a deceased donor in 2017 compared with 799 in 2009.



*Washkansky: Tage lang lagte
an diesem Bett.
Der dreizehnte Tag war der
Höhepunkt im zweiten Leben
von Louis Washkansky. Bei
der Visite drückte er Professor
Barnard die Hand, denn es ging
ihm heute besonders gut.
Er hatte mit London und mit
Australien telefoniert,
und der Bürgermeister von
Kapstadt kam zu Besuch.
Am Abend begann die Krise.*





CHIEF RABBI EXPRESSES SORROW

...the girl who made it possible



ON the left is 25-year-old Denise Ann Darvall, a bank clerk whose tragic death after a road accident near Groote Schuur Hospital led to the operation taking place.

Miss Darvall and her family were on their way to visit friends and had stopped to buy a cake before the accident, which also took the life of her mother, occurred.

By a strangely ironic co-incidence, the wife of the man who was to receive Miss Darvall's heart, passed the scene of the accident after she had visited her husband, who lay dying in hospital from a heart complaint.

Professor Chris Barnard (above), the lean, tanned and friendly heart surgeon, and leader of the 30-strong team which carried out the heart transplant operation that stunned and thrilled the world, photographed during a Press conference at which he gave details of how the operation was performed. Professor Barnard's leadership of the

team brought great credit and honour to South Africa.

The historic picture on the right shows the heart of Denise Ann Darvall, which was given a new lease of life at Groote Schuur Hospital. With this is one of the team of dedicated nurses who maintained an intensive round-the-clock vigil on their famous patient.

The smile around

WITWIT
 Sale



THANK YOU



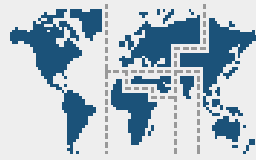
QUESTIONS

ISODP





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How the Spanish donor system works

By **Branwen Jeffreys**

BBC News health correspondent, in Madrid

Charismatic, driven and dedicated - Professor Jose Ramon Nunez works tirelessly as the transplant co-ordinator at the San Carlos hospital in Madrid.

This surgeon is part of an extraordinary national network of doctors trained to identify potential organ donors and speak to bereaved families in the midst of grieving.



Jose Ramon Nunez is typical of Spain's transplant co-ordinators

THANK YOU



ORGAN DONOR
FOUNDATION



Role players



health

Department:
Health

REPUBLIC OF SOUTH AFRICA



THE CRITICAL CARE SOCIETY OF SOUTHERN AFRICA



28th SATS & 3rd SATiBA

CONGRESS

6 - 8 September 2019

KRYSTAL BEACH HOTEL

GORDONS BAY - CAPE TOWN





Coursera Online Education Project



MOOC Promotion - th x 2018 - UCT 5th Year x Inbox (2) - thomson,d x Join 2018 - UCT 5th x Preconditions Required x David

Secure | <https://www.coursera.org/learn/organ-donation/lecture/FI2ql/preconditions-required-for-brain-death>

coursera Catalog Search catalog  For Enterprise  jo

< Back to Week 1 X Lessons Prev Next

Introduction to the Course

The Prerequisites for Deceased Organ Donation

Brain Death - History and Mechanism

Brain Death - Scientific Determination

- Basic Principles 3 min
- Preconditions Required for Brain Death 7 min**
- Brain Death - Clinical Testing 7 min
- Additional Brain Death Tests and International Variability 4 min
- Ancillary Tests 5 min
- Brain Death Reenactment 9 min

Prerequisites for Brain Death Testing

- Cause of coma known and irreversible
- Temperature > 35°C (> 95°F)
- Normal blood pressure
 - Systolic pressure > 90 mmHg
 - Mean arterial pressure > 60 mmHg

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2:26 / 7:10 Photos

Coursera Online Education Project



MYCPD x Welcome to F x (4) Four Mini x (4) Welcome x Religion and x Program for x logo youtube x David

Secure <https://www.coursera.org/learn/organ-donation/lecture/qPQDL/religion-and-organ-donation>

coursera Search catalog Q For Enterprise David

Money, Travel and Organ Trafficking

Religion and Culture

- Religion and Organ Donation 4 min
- Culture and Organ Donation 3 min
- Practice Quiz: Religion and Culture 2 questions

Improving Deceased Donation

Week 4 Assignment

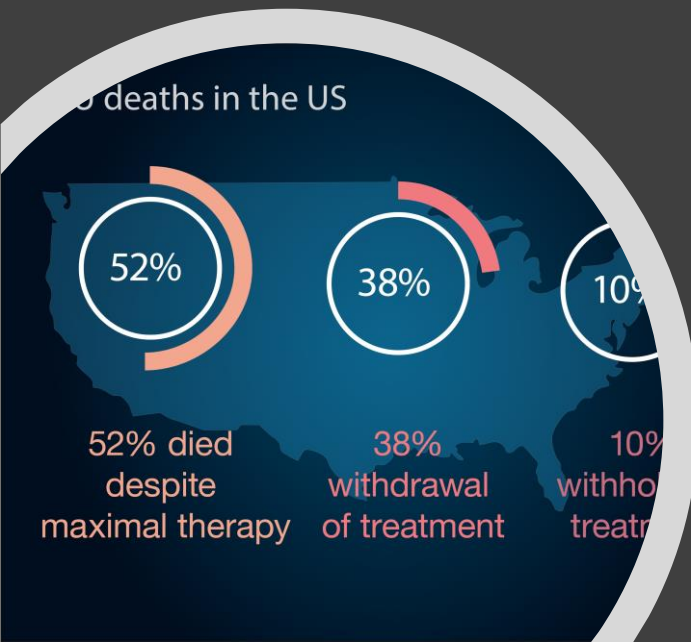
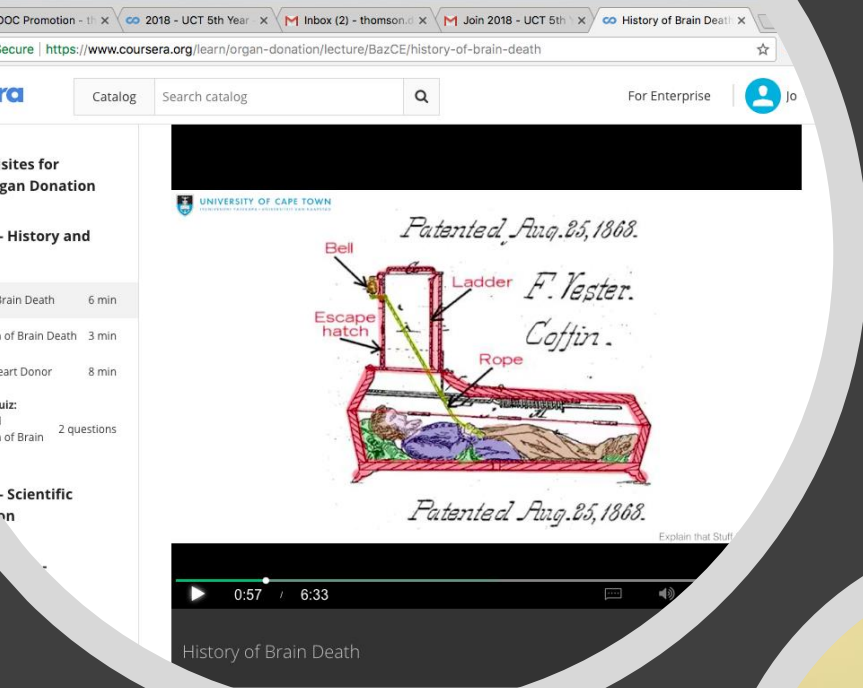
Making Change

Dr Boitumelo Nkgudi
General Surgical Registrar
Groote Schuur Hospital, University of Cape Town

0:13 / 4:02

Religion and Organ Donation

Welcome to Four Minut....avi Welcome to Four Minut....avi IMG_9253.JPG IMG_6491.JPG Show All x



Contents

- Week 1
 - Brain Death
 - Consent
- Week 2
 - End of Life Care
 - Donation after Circulatory Death (DCD)
 - Tissue donation
 - What happens to the body

Proposal to Increase Organ Donation in South Africa

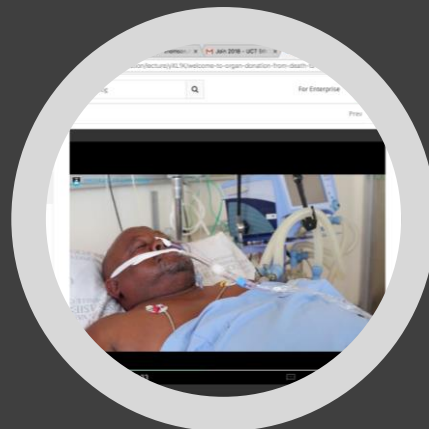
David Thomson

Critical Care Specialist and Transplant Surgeon

Groote Schuur Hospital

University of Cape Town

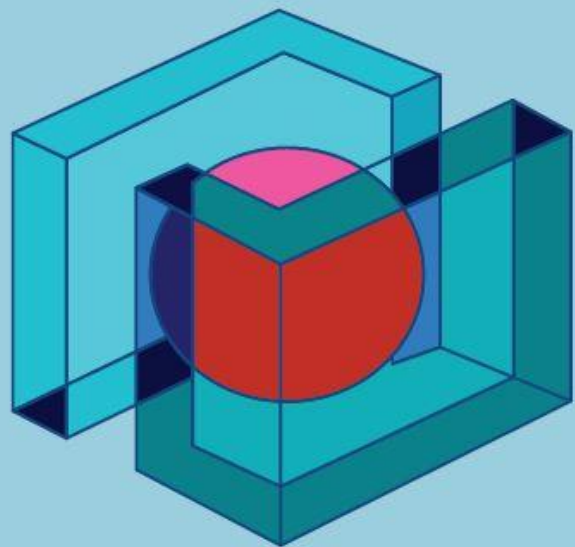




Content

- Week 3
 - Organ Donor Management
 - Organ Allocation
 - How it all happens
- Week 4
 - Religion and Culture
 - Money, Travel and Organ Trafficking
 - Organ Donation Systems





International Society for Organ Donation and Procurement



The
Transplantation
Society



*NGO in official relations with the
World Health Organization - WHO*



My take on the state of affairs in organ donation

- System under strain
- People working in silos
- Opportunity for giant steps forward in deceased donation
 - Most cost effective way to improve access to transplantation
- Need for Ministry of Health to step in with leadership and vision
 - NHI

Program of ISODP workshop to focus on

- Data and Legislation Track
 - Data reporting (Key performance indicators)
- Guidelines Track
 - Required referral
 - Hospital policies
 - Critical Care Society Guidelines
- Transplant Coordinator Track
 - Consent
 - Donor Management



Background / Why I am here?

ISODP Advisory Committee



- Helen Opdam
 - Medical Advisor National Organ and Tissue Authority





Proposed Program – Working Groups

- A review of South African legislation with a gap analysis.
 - How best to improve organ donation systems through legislation?
- Creation of a minimum dataset required by a central authority to monitor deceased donation and transplantation activity (including key performance indicators for referral hospitals and transplant centres)
 - What information will ensure adequate monitoring and best empower future decision making?
- A review of governance systems for deceased organ donation activities
 - With standardization of roles, responsibilities and reporting standards for hospitals, emergency units and ICUs.
- A review of funding models for national oversight of transplant activities

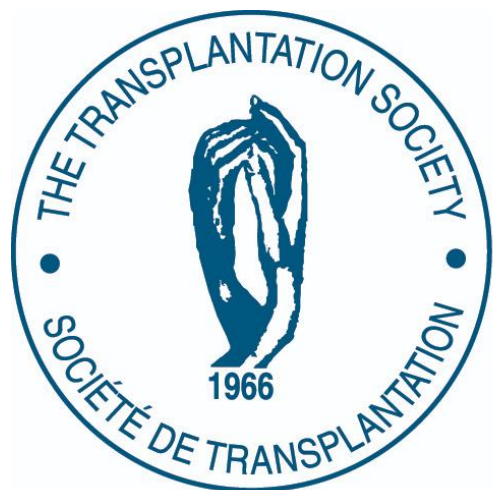
Conclusion

- Hope to have convinced you that this is a project that could make a big difference and is worth fully supporting
- ISODP workshop is an opportunity to formulate a national strategy document for South Africa on deceased organ donation
 - Based on input from world leading experts who have effected change in their countries
- Ministry of Health form a group tasked to work on this project
 - To ensure it aligns with health department goals and there is an implementation strategy that is created hand in hand with the strategy document



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The Transplantation Society

Reason I am here

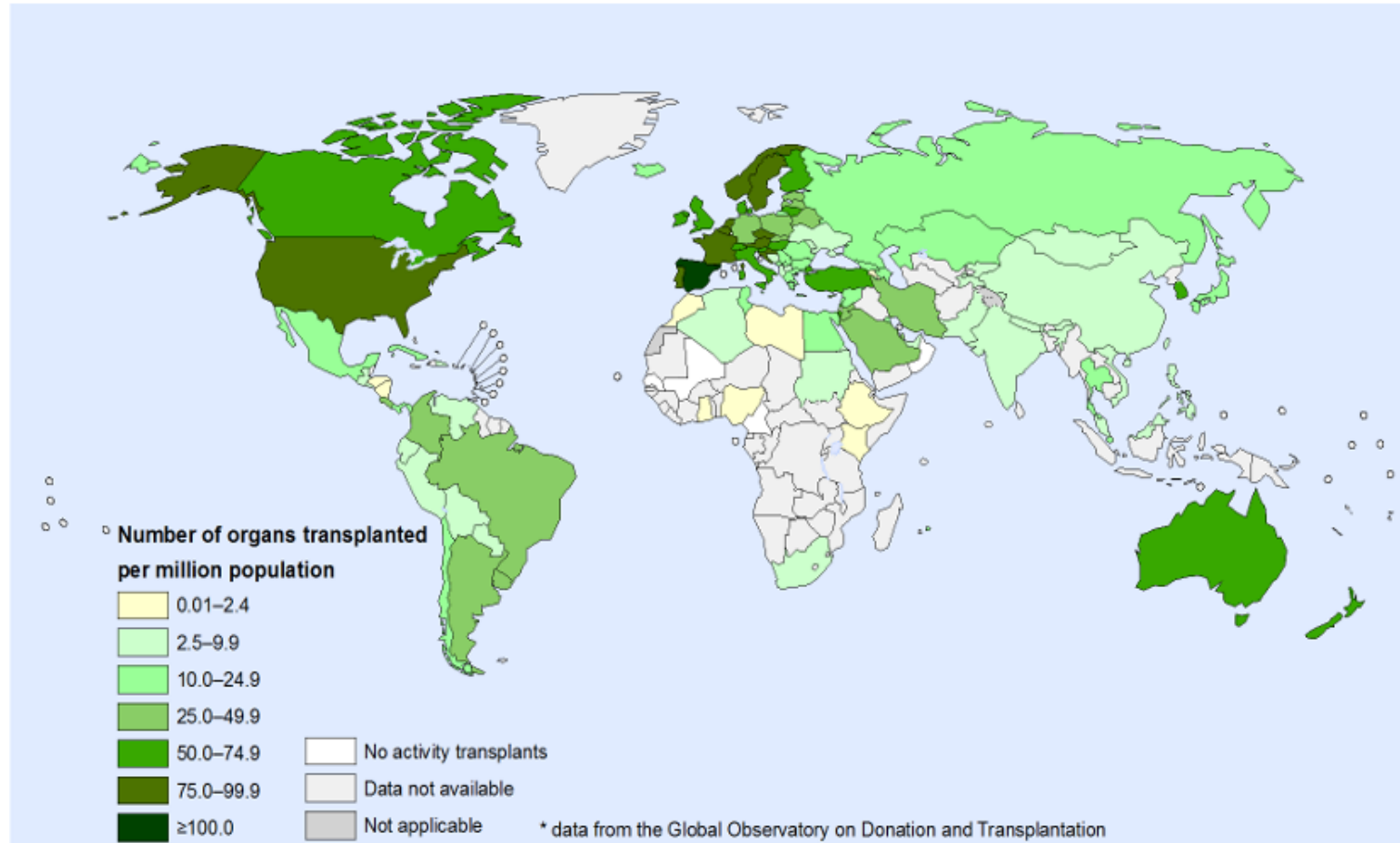
- Related to a grant application to the ISODP
 - \$ 45 000
- For organ donor improvement on national level
- International experts work with local experts to improve the system
- Tailored for the country

- Rafael Matesanz, MD, PhD is a nephrologist. Founder and Director of the Spanish National Transplant Organisation (ONT), since 1989 until May 2017. Responsible of the so called "Spanish Model". He was General Director of the Spanish National Institute of Health, President of the Transplant Experts Committee of the Council of Europe during more than 8 years, Scientific Director of the Tuscany Transplant Organization (ITALY) for 3 years, President of the Spanish National Transplant Committee for 23 years, President of the Iberoamerican Council of Organ Donation and Transplantation (2005-2017), Adviser of The World Health Organization in the field of organ donation and President of the Scientific Committee of the Mutua Madrileña Foundation since June 2014. Director of different Master and Courses on Coordination and Organization of Donation and Transplantation in the Barcelona University, Menéndez Pelayo International University, University of Alicante and Complutense University of Madrid. Director of some publications such as Nefrología, Revista Española de Trasplantes or Transplant Newsletter of the Council of Europe and Transplant Newsletter of Latin-American Region. Author of more than 500 articles in national and international journals and more than 200 chapters of books or monographs about nephrology, organ donation and transplantation and clinical management.
- Recognitions and awards such as Rey Jaime I of Clinical Medicine, Gran Cruz de la Orden Civil de Sanidad, Recognition Award TTS, Príncipe de Asturias Award on International Cooperation in 2010, Honorary Ambassador of the Mark Spain, Doctor Honoris Causa from different Spanish and American Universities, Gold Medal of the Madrid Town Hall, Award Excellence in Health-Scientific field, Gran Cruz de la Orden del Dos de Mayo. Maharshi Sushruta Gyaanpeeth Sanmman 2018 Award- Ahmedabad – India

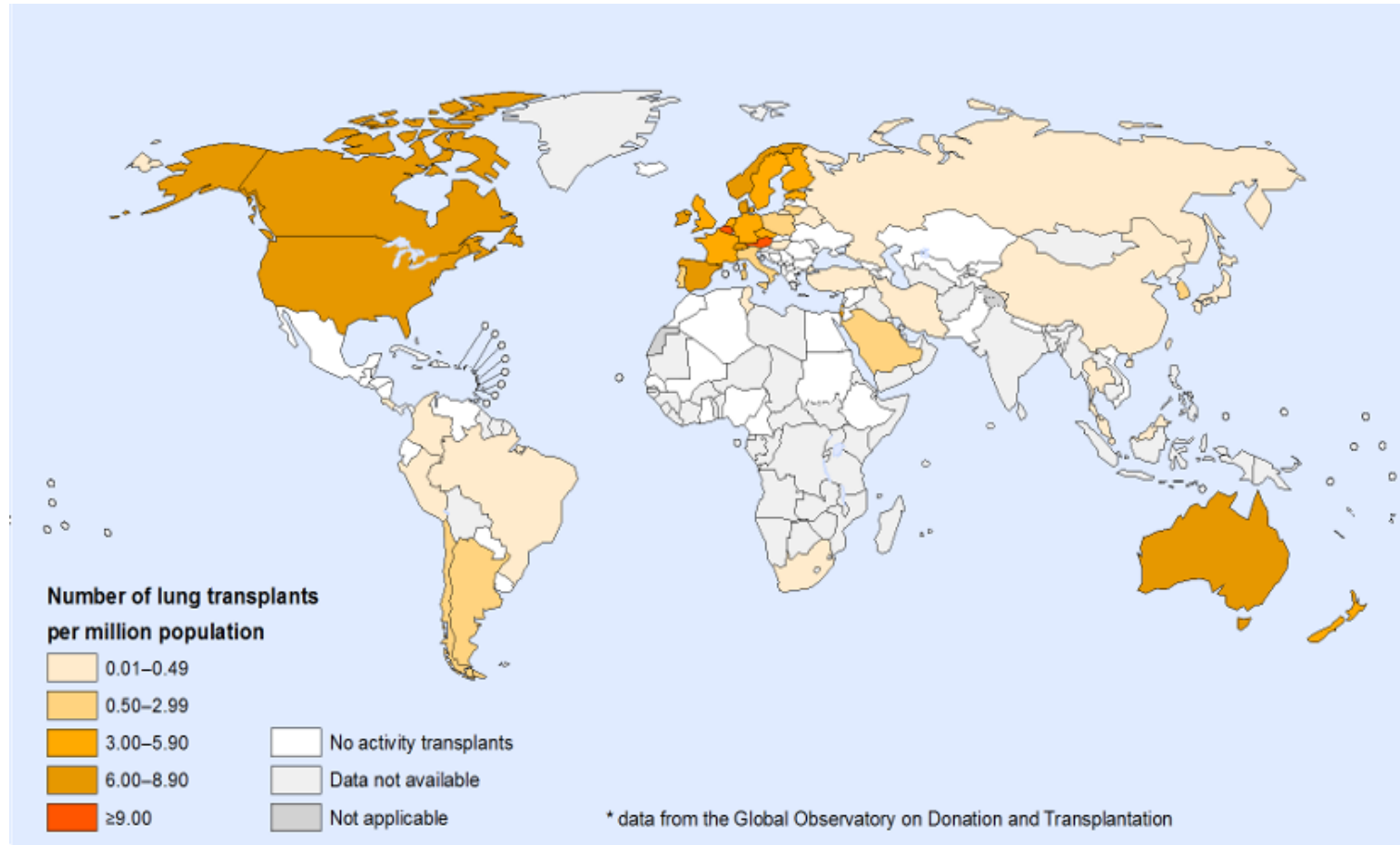
Room for many proposed solutions

- The problem in South Africa is not a lack of ideas – it's a lack of conversion of ideas... We are at the stage where we know...

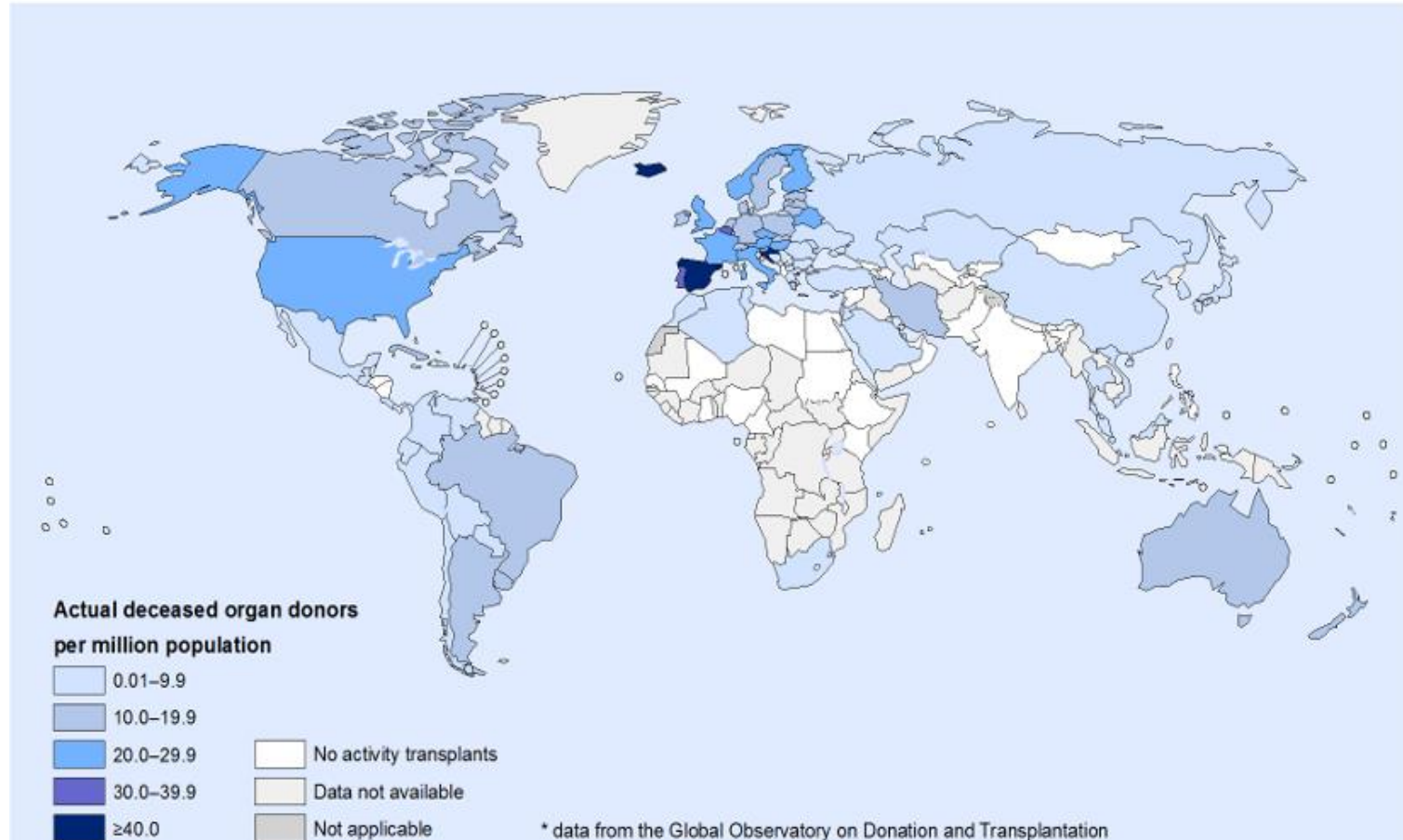
Total Organs Transplanted



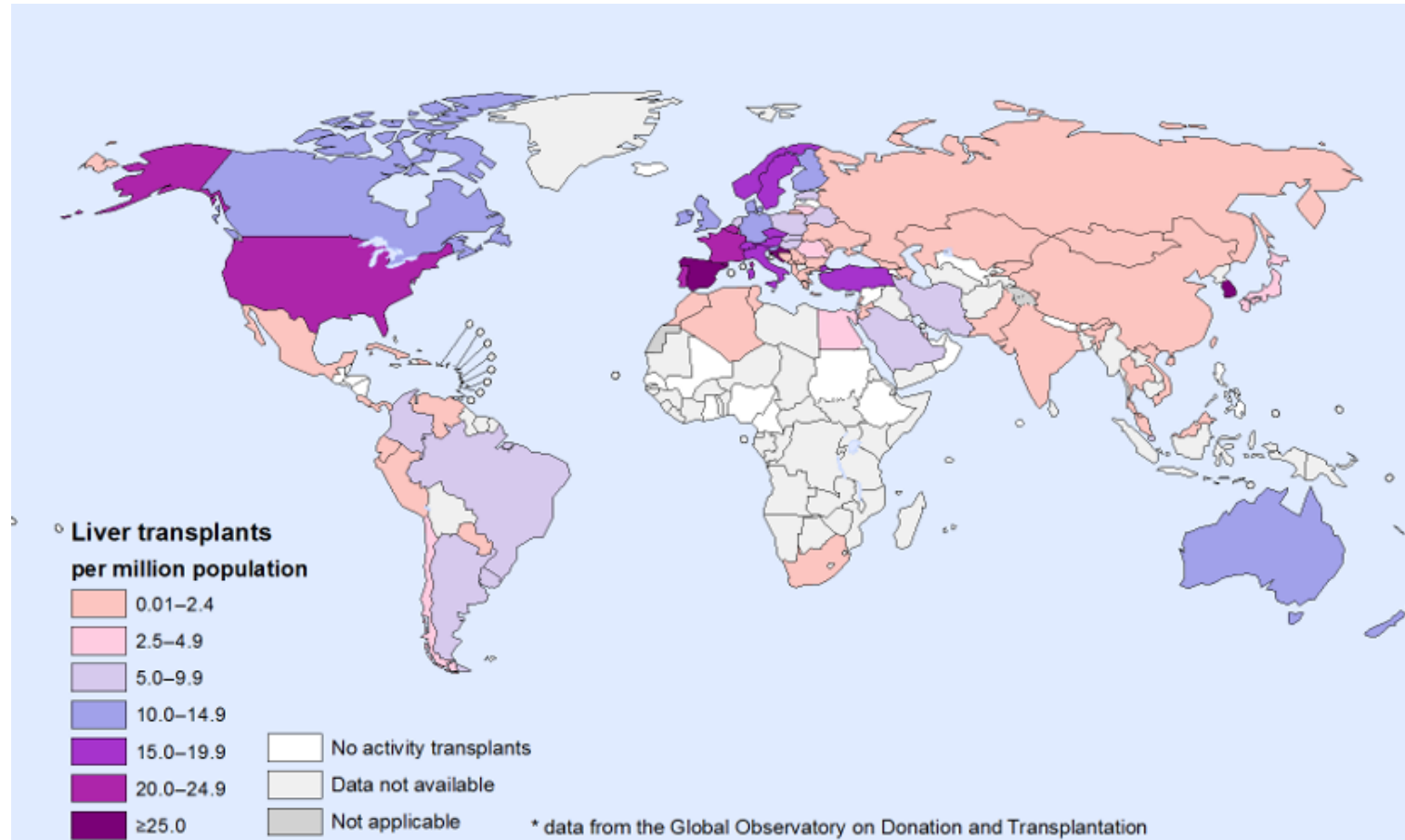
Lung transplants



Actual deceased organ donors



Liver transplants



Opportunity to Increase Organ Donation in South Africa

David Thomson

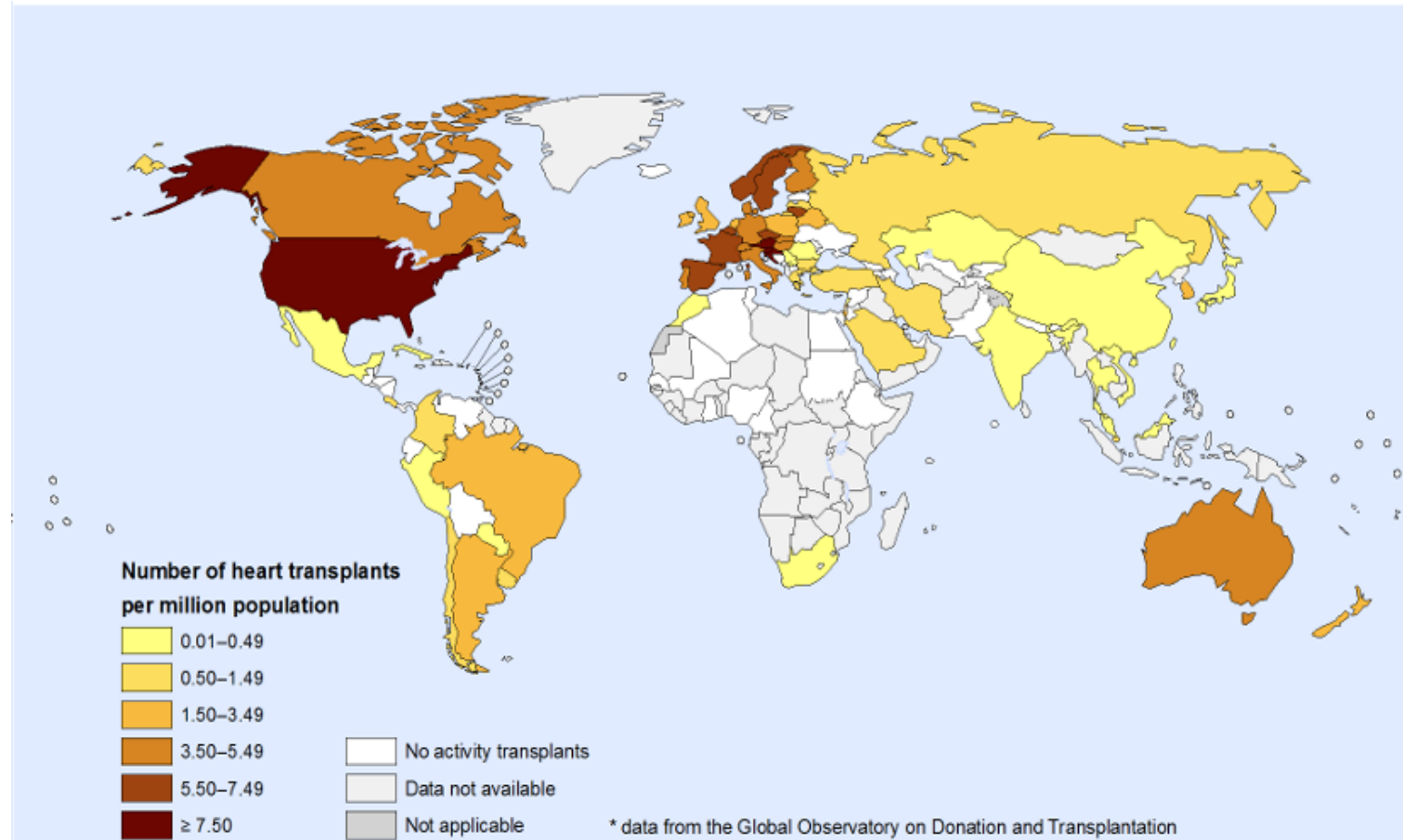
Critical Care Specialist and Transplant Surgeon

Groote Schuur Hospital

University of Cape Town



Heart transplants

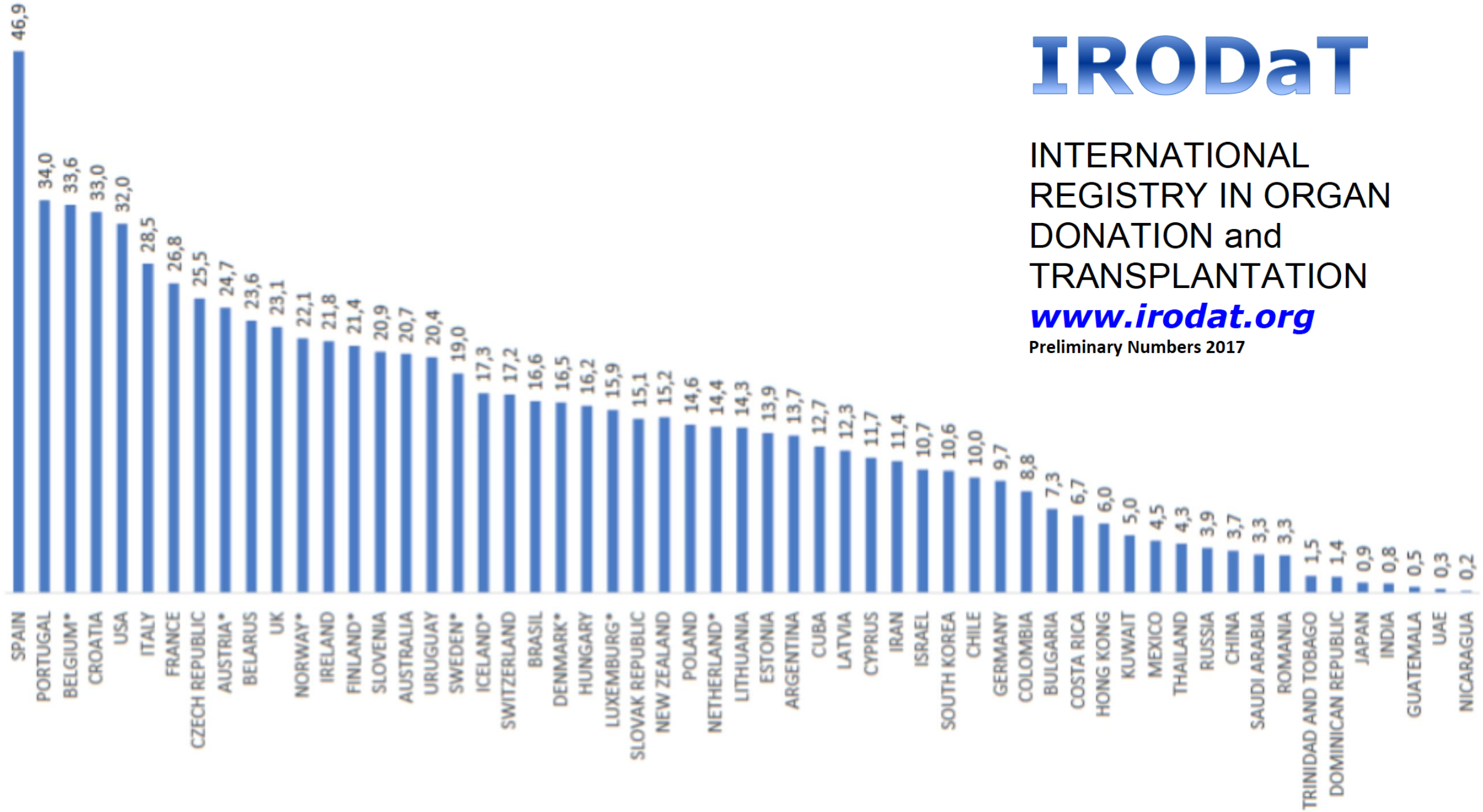


IRODaT

INTERNATIONAL
REGISTRY IN ORGAN
DONATION and
TRANSPLANTATION

www.irodat.org

Preliminary Numbers 2017





- Presumed consent
- Central coordinating authority (ONT)
- Transplant coordinators in every ICU
- Quality assurance systems
- Culture of routine donation

News > Long Reads

Spain leads the world in organ donation – what's stopping other countries catching up?

More and more people are donating organs, but demand still far exceeds supply. What can the world learn from the country that does it best?

Chris Baraniuk | Sunday 29 July 2018 15:50 | 0 comments



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