Timor Leste: Capacity building in Surgery
Global Burden of Surgical Disease
RACS Melbourne 2012

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East Timor
The world's newest nation

- 400km north west of Darwin on the 20th May 2002 a new nation was born
- **Timor Leste**
East Timor’s Turbulent History

- Portuguese colony for over 400 yrs
  - Trading interests
- Occupied by Japanese in WW2
- Portuguese re-established until 1975
Independence for 9 days

- Indonesian invasion Dec 1975
  - Occupied by Indonesians until 1999
Indonesian occupation
1975-1999

- Estimated 200,000 people died
- 500,000 people displaced

- Perpetual unrest and fear within all East Timorese communities
- Resistance guerilla war mounted by East Timorese freedom fighters-Falantil army
THE LEGACY

During the 1999 Indonesian withdrawal:
Dili was destroyed
The infrastructure was destroyed
Majority of the skilled workforce left

A void remained

No Health system
No legal system
Education system in disarray
No structured economy or currency
East Timor’s was born

As one of the ten poorest nations in the world

As a community still recovering from 25 years of war

With 17 different dialects

No infrastructure

Depleted skilled workforce
A decade of Independence

- What has been achieved?
  - Stable Government
  - Growing Economy
  - Education
  - Governance
  - Security
- Health?
Health System- 1999 Ground Zero

- Approx 20 medical doctors
- No specialists
- Destroyed Infrastructure

- Population 700,000
- Dependence on International medical specialists
  - Clinically
  - Administratively
Jump to the future...Now
Present day

Trained a core group of Timorese doctors:

2 Timorese General Surgeons  
Dr Mendes Pinto (Indo),  
Dr Joao Pedro (PNG)  
1 Ophthalmologist: Dr Marcellino  
1 Anaesthetist Dr Flavio  
2 Obs/Gyn:  
2 paediatricians:  
2 Internal Medicine Physicians  
1 Burns and cleft lip and palate surgeon

14 other doctors in established training programs across broad range of specialities

21 Nurse Anaesthetists
• **CAPACITY BUILDING**

• Proportion of operations done or assisted by Timorese trainees:

  10% in 2001
  51% in 2006
  95% in 2010

Independent Procedures
  - Skin grafting
  - Appendicectomy
  - Cataract surgery
  - Laparotomies
  - Management of sepsis

95% of anaesthetics given by local nurse anaesthetist
• So how did Timor Leste progress from ground Zero?
  – Not alone
    • >100 NGO’s and GO’s
    • > 30 donor nations
  – Not quickly
  – Not without setbacks and failures
Phases of Timor Leste Health System

- 1999 Referendum for Independence
  - 2002 Independence
  - UNTAET
- Early Independence
- Expanded International Support
- Returning Timorese specialists
1999-2001 - Transition

- UNTAET - UN led transitional Government
- Multinational expatriate workforce
- Based in Dili
- Service Delivery
  - Surgery
  - Anaesthetics
  - Obstetrics
  - Emergency
- ICRC
- MSF, UN Peace Keepers, WHO, NGO’s
Early Independence: 2001-2004

- 1999 Referendum for Independence
- 2002 Independence
- Dili Riots 2003
- UNTAET
- UN/WHO Programs
- AETSSP
- CordAid - Taco
- UN/WHO Programs
East Timor Surgical Workforce: 2001-2004

- **General Surgeons**
  - Australian Surgeon
  - Dutch Surgeon - Taco

- **Anaesthetist**
  - Australian anaesthetist - rotating
  - Nepalese born, Russian trained

- **Obstetric**
  - UN: Japanese, Azerbijan, Danish, Polish, Nepalese

- 1999 Referendum for Independence

1999

2002 Independence
- Dili Riots

2006 Civil Unrest
- 2007 Change of Government

UNTAET

AETSSP | ATLASS

CordAid- Taco

UN/ WHO Programs

CHINA

CUBA
Expanded International Support

2004-2008: Era of Change and Opportunity (Training)

- Era of huge change
  - Cuba arrives with 200 Dr’s
  - China Team- 10 specialists
  - Some Timorese Dr’s return from studying in Indonesia
  - Surgical Team: From 2-20 surgeons virtually overnight
    - International Dr’s provide clinical service
    - “Tower of Babel”
    - Opportunity for Training
Returning Timorese specialists

- 2009- onwards
ATLASS PROGRAM
Australia & Timor Leste Assistance for Specialty Services
2001-2016..
**Goal**: To improve the availability and quality of essential general and specialist surgical services for the people of Timor Leste

Commenced in 2001 Initially as Australia East Timor Specialist Services Project (AETSSP), 2001 – 2006

**Key Goals:**

- Education and Training
- Clinical Services
- Quality improvement
Evolution of Atlas

• 2001: Program
  - 2 Specialists
    » 1 General Surgeon
    » 1 Anaesthetist
  - Short term visiting teams: Ortho, ENT, Plastics, Paediatrics, Ophthalmology, urology, cardiac

• 2012-2016
  - 5 Specialists
    » General Surgeon, Orthopaedic surgeon, Anaesthetist, Paediatrician, O&G
  - Administrative staff in Dili
  - Reduced short term visits
  - Clear focus on Education & Capacity Building
    Clinical service as a teaching tool
Initiatives

- Nurse Anaesthetic Program
- Eye Program
- Cleft Palate/Lip Service
- Orthopaedic Ponsetti Program
- Support of Pathology
- ENT- Treatable deafness
- External Training
- Diploma Course

- Structure of the Program
- What did it achieve?
- Key Elements of success
Nurse Anaesthetics Certificate

• 12 month certificate course in Anaesthetic Training
  ▫ At National Hospital (HNGV)
  ▫ Under the direction of Dr Eric Vreede
  ▫ Theoretical and practical skills
  ▫ 2004/2005 First Graduates of Nurse Anaesthetists(9)
    • Enthusiastically attended
    • Well subscribed
  ▫ 3 subsequent courses
Nurse Anaesthetic Program

Achievements

- Training of 21 nurse anaesthetists
- Anaesthetic service in every hospital
- 95% of all anaesthetics in the country by program trained nurse anaesthetists
- Filled the quota of nurse anaesthetists needed in Timor Leste

Graduating class 2005
Nurse Anaesthetists
Factors for success

- Collaborative approach with Ministry of Health
  - Required an in country champion-
    - Dr Eric Vreede (Dr Hayden Perndt)
  - Owned by Timor Leste
  - Sustainable- delivered repeatedly

- Specific to needs of country
  - Core set of skills for safe anaesthesia
  - Defined role in the health system
  - Human resources plan
    - Financial recognition
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- ??DALY’S or QALY’s
  - Eric was cheap so good bang for the buck!!
Eye Care Services

Improved access to eye care services through an effective outreach program throughout the country

Since 2001:
Short term visiting teams
Support of training Dr Marcellino

Output
46,000 + consultations,
5000 + surgical procedures
29,000 + spectacle prescriptions.

1 trained Ophthalmologist
Eye Care Services

- Equipped all referral hospitals with capacity to perform ophthalmic examination & surgery
- Addressing disability support needs through vision rehabilitation services.
  - Distribution of glasses
- Beneficiary eye study conducted on cataract surgery patients. Analysis of results in progress.
Audit of Cataract Surgery Outcome

- Good outcome <6/18: WHO Guidelines 85%, 2009 - Timor Leste 43.3%, 2010 - Timor Leste 89.4%
- Borderline 6/18 to <6/60: WHO Guidelines 44.6%, 2009 - Timor Leste 10%, 2010 - Timor Leste 6.4%
- Poor outcome >6/60: WHO Guidelines 5%, 2009 - Timor Leste 12.1%, 2010 - Timor Leste 4.2%
Program Features

- Repeated short term visits
  - Consistent personnel
  - Establish rapport and networks
- Early Clinical service to clear the backlog
- Training support to meet future needs
  - Identify a potential candidate early
  - Inspire and support
  - A set of specific skills can be obtained fairly quickly with high volume of case load
Cleft Palate/Lip Service

- Championed by Dr Mark Moore
- Long term commitment
  - Repeated and regular visits 3-4 / year
  - Small team
- Establish networks
- Highly skilled specialists

- A plan for the future
  - Identify a trainee
  - Impart a specific skill
Output

- > 600 cases of cleft lip/palate
- Burden of this disease has been reduced
- I trainee capable of performing some cleft lip surgery independently

Key Elements of Success
- Repeated visits over long period
- Identify trainee early
- Use the burden of disease for training
External Specialty Training

- Expanded International Support
- Opportunity for external training
  - 20 Timorese doctors sent for overseas training

- Specialty areas
  - General & Orthopaedic surgery
  - Internal medicine- pulmonary, cardiology, neurology
  - Paediatrics
  - Anaesthetics
  - O &G
  - Psychiatry

- Countries chosen
  - Disease spectrum comparable
  - Technology comparable
  - Language comparable
  - Culturally compatible
External Training- Specialties

Indonesia

Malaysia

Phillipines

PNG

Fiji
External training

- ?Effective- Yes
  - 7 Specialists returned

- ?Efficient- No
  - 6 failed
  - Remainder are still in training

- Lessons
  - Nepotism is not a good selection process
  - Competition is healthy
    - The bigger the pool the better the candidates
  - In country preparation at the national hospital helps
Diploma Course

- In country training
  - 18 month diploma course
  - University of Timor Leste
  - Surgery, Anaesthetics, O&G, Paediatrics & Internal Medicine
  - Aimed at delivering General doctors to the district area with an increased skill level
  - Selection tool and preparation for further training
  - Delivered by clinical staff at the national hospital
    - Timorese Led
Timorese Led Skills transfer

Specialist Qualification

Certificate Courses

Education and Skills Transfer

Cascade Effect
Broad Lessons

• Time ≈ 1

  Skill set

  ▫ You’ve got to be there for the long haul
  ▫ Right people at the right time in the right place
Summary

Full Independence is a long Journey

- After one Decade
  - East Timor has made progress from Ground Zero
  - Skills transfer & Courses
  - Many procedures performed independently
  - The holy grail of fully trained specialists has been harder & longer to achieve

- We are committed to being a partner in the Journey
  - AusAid funding for 4 years
  - RACS Vision for longer
Thankyou
East Timor, Cuba, China
Acknowledgement
Long Term
  General Surgeons
  Anaesthetists
Short Term teams
RACS International Projects Office
staff
Many International specialists