NTRO UNIVERSITARIO R LA COOPERAZIONE INTERNAZIONALE





UNIVERSITÀ DEGLI STUDI DI PARMA Facoltà di Medicina e Chirurgia

Master of "Salute Internazionale e Medicina per la Cooperazione con Paesi in Via di Sviluppo Emergency And Essential Care (EEC) At District Hospitals In Developing Countries"

#### DESIGN AND CONSTRUCTION OF A SURGERY CENTRE IN A LOW RESOURCES ENVIRONMENT Concept and Project proposal

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# PLAN

- General Introduction
- Part I: Concept
  - Health facilities: General organization
  - Surgery block : Organizational and functional view
  - Building attributes
  - Relevant codes and regulation
  - Conclusion
- Part II: Project Proposal- Construction and Equipping of a surgery center for the Bali Nyonga Community in the North West of Cameroon.

## **General introduction**

- Hospital is the central point of a community life.
- Studies targeting the hospital and his environment have been carry out in northern countries.
- Less developing countries are still facing many health problems: less trained personnel, less equipment, less well shaped health facilities.
- Cameroon Health Strategy 2001-2015 does not mention surgery related problem while the need is present: EMOC, ASA, congenital malformations, trauma... necessity to improve the health indicators related to the Millennium Development Goals (MDG).

# Concept: 1- General organization of a Health facility

- The basic organization of the hospital is ideally based on its functions:
  - Outpatient and related services
  - ➤ Inpatient
  - Diagnosis and treatment
  - Administration
  - Service supply
  - Research and teaching



## **2-SURGERY COMPARTMENT**



# **3-BULDING ATTRIBUTES**

- Efficiency by cost effectiveness
- Flexibility and expandability
- Therapeutic environment
- Cleanliness and sanitation
- Accessibility
- Controlled circulation
- Aesthetic
- Security and safety
- Sustainability

### **4-CODES REGULATIONS-CONCLUSION**

#### **CODES AND REGULATIONS**

- Developing country codes are base on International Building codes, British Standard or French Building codes.
- In Cameroon the main step is the obtaining of the building permit.

### CONCLUSION

- Creating something from nothing is an awesome task. This needs creativity, enthusiasm and commitment.
- The six phases of the building process provide a clear and comprehensive framework: Planning, schematic design, design and development, construction document, construction and commissioning.

### PROJECT PROPOSAL

### CONSTRUCTION AND EQUIPPING OF A SURGERY CENTER FOR BALI NYONGA COMMUNITY

- History of the project
- Location: Bali Health District in the North West of Cameroon
- Duration : 3 Years
- Beneficiaries: Population of Bali District Area



### **OBJECTIVES**

The <u>general objective</u> is to contribute to the reduction of the mortality and morbidity among surgery needed cases in Bali District.

The <u>specific objective</u> is to provide quality, quantity and affordable surgery care to the Bali Community.

### **RESULTS- ACTIVITIES**

- Improving the infrastructure in the CMHC of Bali by 2012 the main activity is the building of a surgery center.
- Providing more appropriate equipment by 2012, the activity is the equipping of the surgery centre.
- Increasing qualified Health Personnel by 2014. The activities are continue education-training and recruiting new personnel.

#### Architectural design of the Surgery Centre for Bali Nyonga community

- Surgery compartment
  - One surgery room of 26.125 m<sup>2</sup>
  - One surgery room of 24.75 m<sup>2</sup>
  - One recovery room
  - One toilet for patient
  - One sterilization Store
- Transfer zone
  - One toilet and one changing room for male and the same for female.
- Out of the Surgery compartment.
  - One office
  - One dressing room
  - One duty room
  - One changing room and toilet for the personnel
  - One store
  - 2 Patient rooms with 2 beds and inner toilet
  - 2 patient room with 2 beds without inner toilet.
  - 2 patients room with 4 beds
  - 2 Toilets for patients.



# **GRAZIE MILLE – THANK YOU**



