

1- Governance

1. What is the role of Ministry of Health in the country?
 - i. How works the healthcare system?
 - ii. Who have access to healthcare system?
 - iii. What is the mission?
 - iv. What are the main healthcare challenges?
 - v. What are the current priorities?
 - vi. How is the budget managed?
 - vii. Main problems according to you?

2- Administrative structure

- a) Can you explain how the administrative structure of the cardiac surgery department works? (Director, chief, meetings (multidisciplinary, goal/mission cardiac surgery, main priorities, are you affiliated to a university?).
- b) How many cardiac surgery centres are there in the country?
- c) How are you financed?
(Public/private, government, local organizations, part of the budget to cardiac surgery and how is it separated between human and materials resources)
- d) Do you have to cancel surgeries? (What are the reasons?)
- e) Main problems? What would you wish or like to improve? (Sustainability of the programme?)

3- Material resources

- a) What are the material resources of the cardiologist(s)?
(echocardiography machines (transthoracic and transesophageal), cath lab, historic)
- b) What are the material resources of the cardiac surgeon?
(ORs, ICU beds, floor beds, instruments (sterilized instruments), access to cell saver, ECMO)
- c) What surgical materials do you use?
(kits of instruments, mechanical valves, biological valves, pericardial patches, dacron, new equipment)
- d) Other -What are the other materials used in your hospital related to cardiac surgery?
(haematology, biochemical labs, radiology, ventilators, cardiopulmonary bypass pumps (oxygenator, reservoir, heat exchanger, blood bank (in-hospital or elsewhere?), pharmacy- medications, dialysis machine, invasive monitoring)
- e) Are you often exposed to shortage of materials or medications? What do you do if it happens?
- f) Main problems? What would you like to improve?

4- Human resources

- a) What is the composition of the staff that is involved in cardiac surgery and cardiology in your hospital?
(Anaesthetists, perfusionists, intensive care unit (ICU), nurses (ICU/floor), paediatricians, surgical assistant, residents/medical students, access to humanitarian missions?)
- b) Main problems (missing healthcare professionals, retention of employees). What would you like to improve?

5- Training/education/Current practice

- a) Can you discuss about your training history starting from medical school?
(cardiologist and cardiac surgeon, nurses, anaesthesiologists, perfusionists, paediatricians)
- b) Why did you decided to work at your institution?
- c) Do you have time to do research?
(what is your definition of research?, importance, financing?, database?)
- d) Do you have time to go to conferences?
(how many, which one).
- f) Can you describe your typical week?
(cases, clinic, hours of work, calls)
- g) Do you teach residents/future surgeons?
- e) Main problems regarding training, education and current practice, what would you like to improve?

5- Patients/Access to care

How is the patients' access to care (from pre-hospital, peri-hospital and post-hospital).

- a) Pre-hospital:
(localization of patients: urban versus rural, who refers the patients, pathway to hospital, accessibility/waiting list, clinics-how many patients do you see per year- selection of patients, delays, do you send the patients elsewhere? do they need to pay (package), insurances, surgical consent, does culture/religion or beliefs can interfere with your choice of treatments)
- b) Peri-hospital stay:
(Main cases, surgeries (urgent versus elective), complications (morbidity and mortality), Number of cases done per year). What are the proportions of cases?
- c) Post-hospital stay:
(Follow-up, clinic appointment, who takes care of them, access to medications (narcotic, medication refills, INR (international normalized ratio) management, wound care,

compliance to treatment, do you have access to death certificate?)) Prevention programmes (diabetes, smoking, hypertension, rheumatic fever, and exercises).

d) Main problems for patients' access to care. What would you wish to improve? What do you think are the main challenges for access to care of the patients?