Limitations and Options for Renal Care under Suboptimal Circumstances

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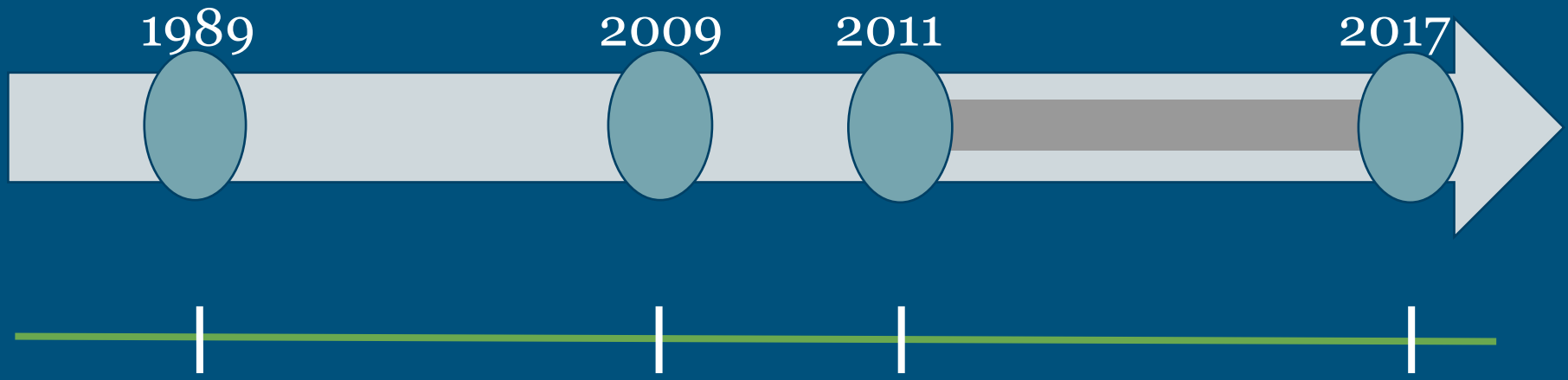
Surgical Kidney Hospital - Damascus



Surgical Kidney Hospital - Damascus

1- Renal Disease Care.
2- Hemodialysis.
3- Renal Transplantation.
4- Urological Care and Surgeries.
5- Laser Lithotripsy.
6- Renal and Urological Emergencies.
7- Intensive Care Unit.
8- Laboratory Services.
9- Radiology.

Main Objective

While the current worldwide knowledge is mainly based on lessons learned resulted by taking care of crush syndrome patients during natural disasters,

the experience of the Surgical Kidney Hospital adds to the knowledge about renal care in suboptimal circumstances.

Renal Care during Crisis

During crisis and suboptimal circumstances, the delivery of healthcare services including Renal Care can be interrupted due to:

- The destruction of medical facilities and infrastructure.
- Lack of health care personnel.
- Shortage of equipment and supplies.
- Absence of maintenance and support.
- Interruption of electricity and water.
- Technical or electrical issues such as electrical power blackouts.

Renal Care during Crisis

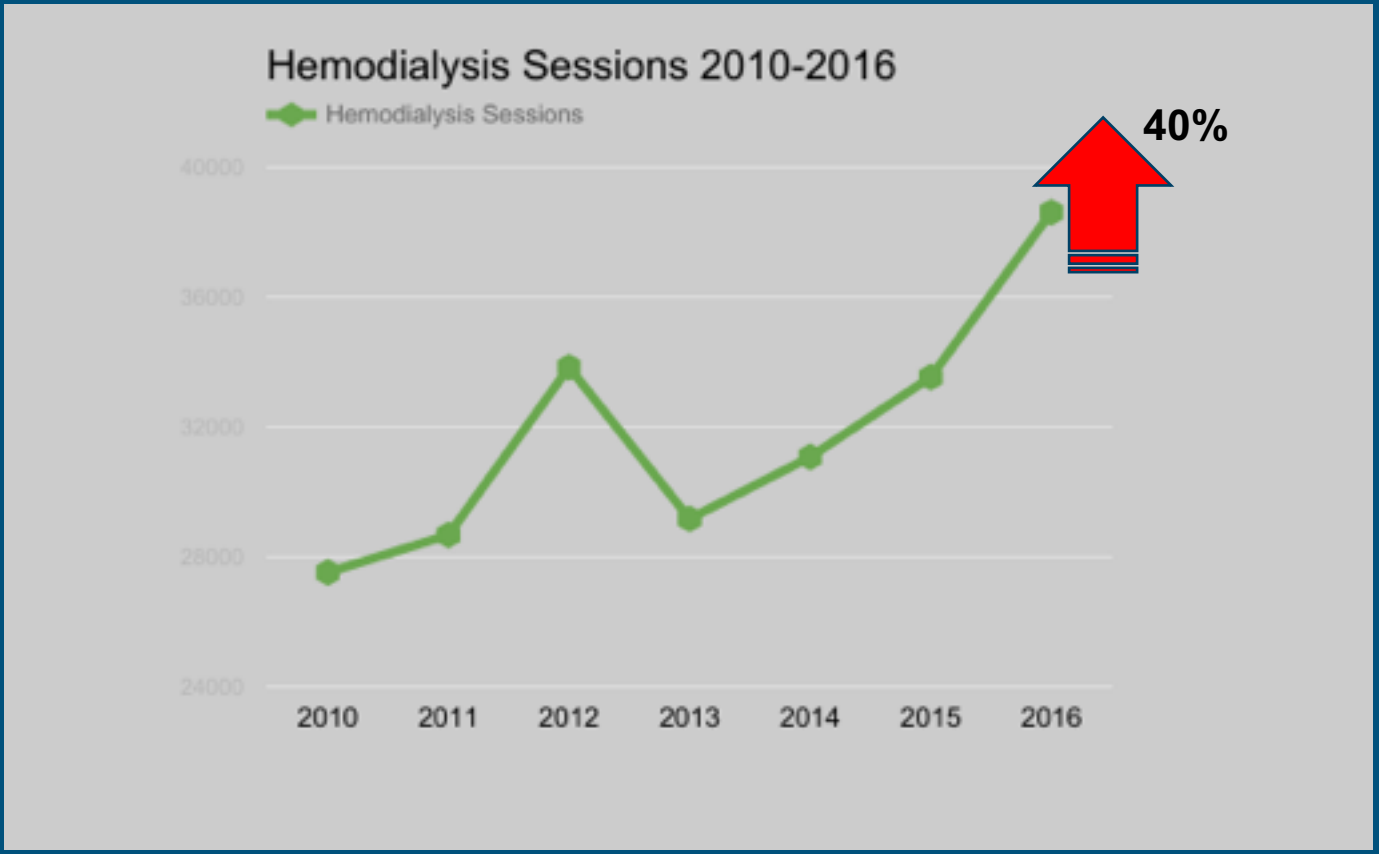
As Humanitarian Crises tend to trigger waves of refugees and internally displaced, Syria received an influx of Iraqi refugees within the last decade; many of whom arrived with the need for urgent medical assistance.

As a response, and due to the pressure the refugees posed on Syria's medical infrastructure, the WHO purchased 90 dialysis machines, with their supplies, and distributed them across all 14 Syrian provinces.

Syrian Context: Limitations

1- Renal Failure Dilemma.
2- More Patients, Less Medical Staff.
3- Increased Need for Equipment & Supplies
4- Medication Crisis
5- Electricity Crisis
6- Water Crisis
7- Psychological Crisis
8- Safety and Security

Renal Failure Dilemma



Renal Failure Dilemma

Patients on dialysis may die within days to weeks in the absence of dialysis treatment. Also, transplant patients risk the possibility of rejection and graft failure if they lose access to immunosuppressive and anti-rejection medications.

Renal Failure Dilemma

Increase in the number of patients can be ascribed to:

- Internal displacement.
- Dysfunctionality of some dialysis and transplant centers.
- Difficulty in accessing immunosuppressive medication.

Renal Failure Dilemma

The current circumstances triggered a gradual decline in the total number of annual renal transplants by 60% from 385 in 2010 to 154 in 2013.

Patients in several governorates had challenges accessing immunosuppressive medications.

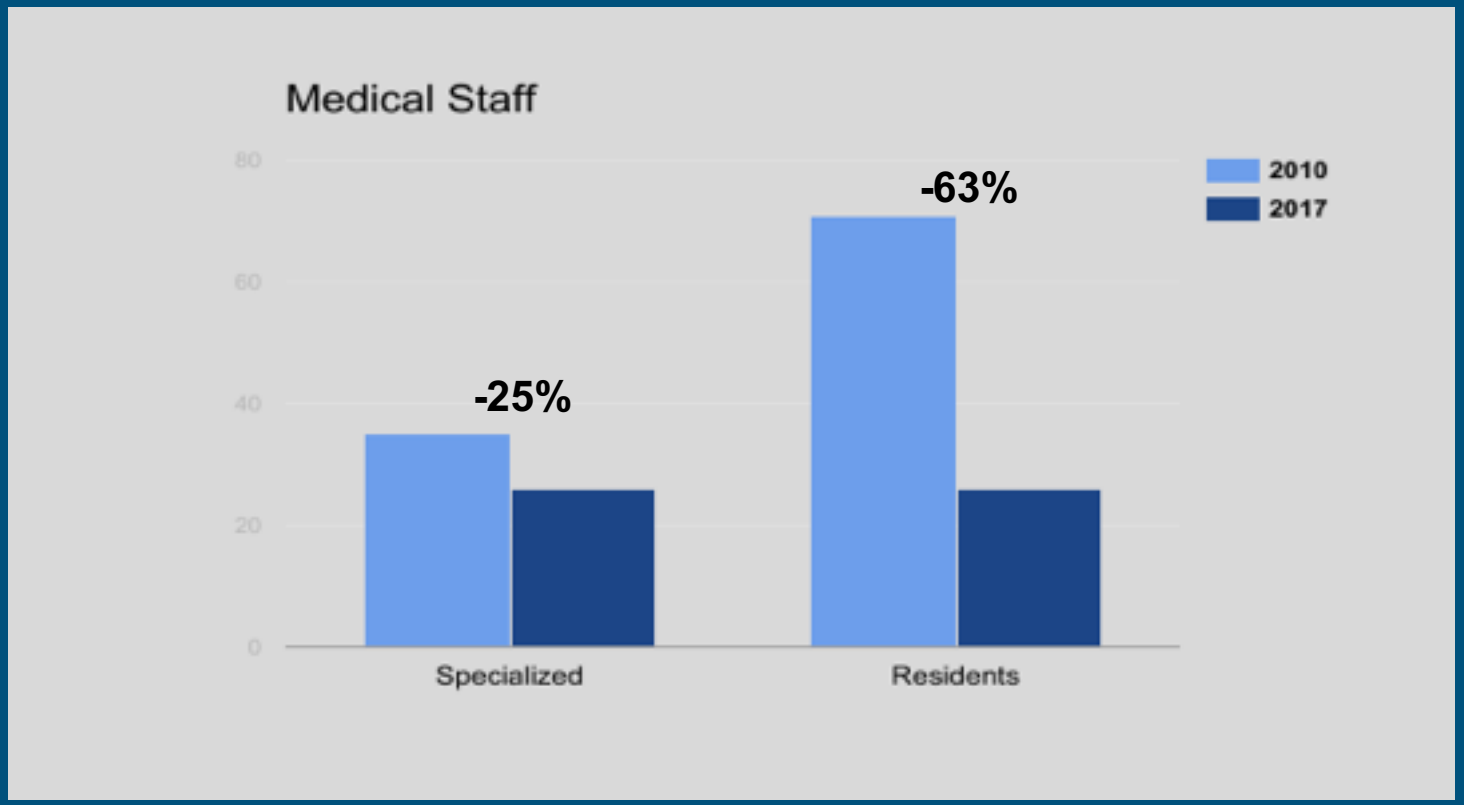
Renal Failure Dilemma

Prior to the crisis, there were **8** functional centers for Renal transplantation, in 3 main cities.

Transplant centers in Aleppo and Homs became non-functional.

Renal transplantation continue to be performed only in 4 centers in Damascus.

More Patients; Less Staff



Increased Need for Equipment & Supplies

- Dialysis Machines.
- Supplies for Dialysis Sessions.
- Supplies for Peritoneal Dialysis
- Ventilators.
- C.R.R.T.
- Plasmapherisis

Medication Crisis

- “After thirty-three months of the crisis in Syria, the pharmaceutical industry, in all its aspects, has been sabotaged and destroyed. Serious damage has been inflicted on the pharmaceutical factories in Aleppo, Homs and Rural Damascus, where about 90% of the pharmaceutical factories in the country are located.”

Dr. Abdullah Hamada, The Syrian Crisis Repercussions on the Pharmaceutical Industry: Analytical Field Study, Journal of Academic Researches and Studies, Volume 6, Number 10, May 2014, p. 72.

- International Sanctions

Electricity Crisis

Rationing:

This has led to irregular electrical blackouts which created challenges to the continuity of the offered services.

Blackouts posed a direct threat to the lives of patients.

Water Crisis

Daily Needs of Water at the SKH: 90,000L

Each Dialysis Machine consumes about 300L of treated water per session

December 23, 2016 - February 10, 2017

Children were among those most affected.

A well was explored in Jan 2015 but apparently it relied on collective water rather than a nearby spring for its water source. Thus, no water was to be found.

Psychological Crisis

- While trying to provide treatment under suboptimal circumstances, the situation may require that the nephrologists set aside their standard approaches and guidelines and seek innovative ways in order to maximize outcomes for the greatest number of individuals using limited resources.

- Mobility hardships.

- Economic Challenges.

- Lack of professional development opportunities given unjust sanctions.

Safety and Security

An increase in Acute Renal Failure due to:

- Trauma and Crush Injuries, Rhabdomyolysis.
- Acute Glomerulonephritis due to Infections (i.e. skin infections).
- Malnutrition.
- Overcrowding.

Syria context: Options

1- Effective and flexible Crisis management.

2- Increasing Medical Equipments.

3- Coordination with the International Community.

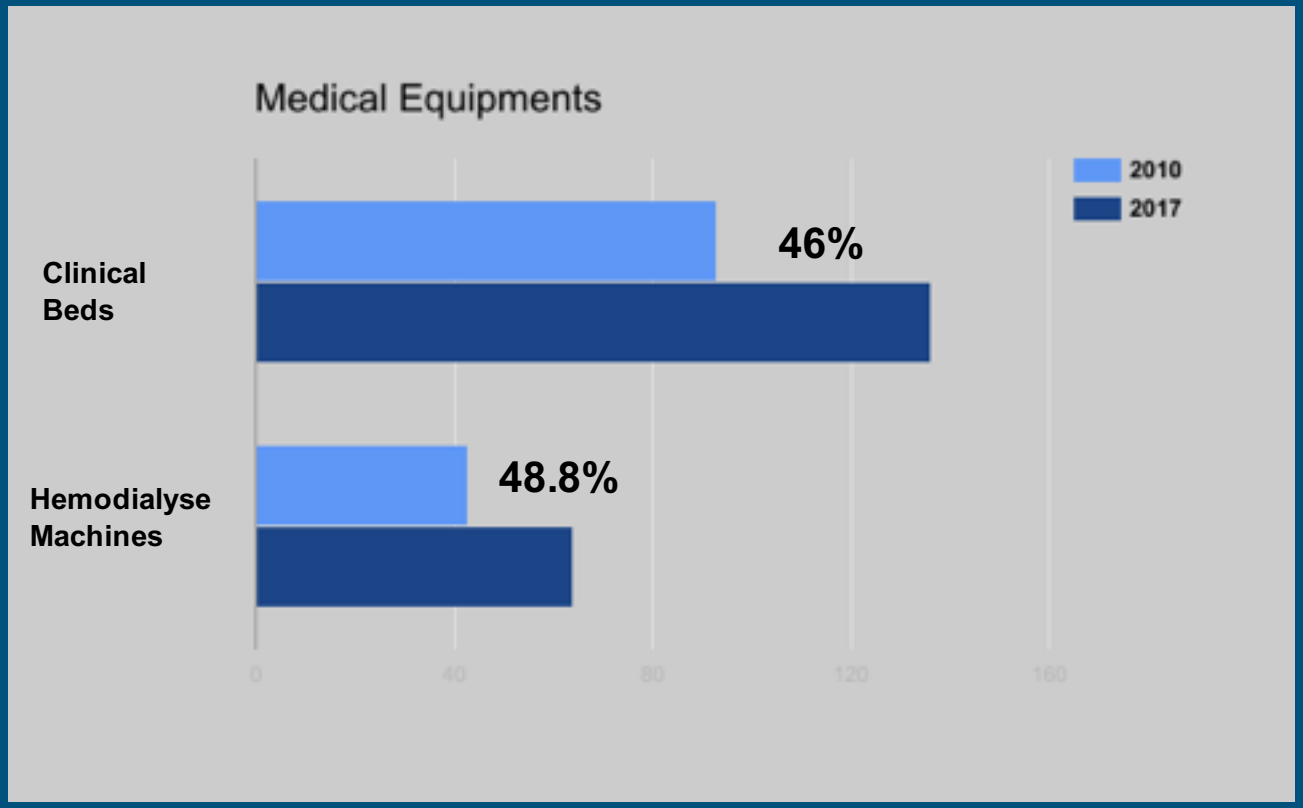
4- Utilizing the support of the Civil Society.

5- Preparedness

Effective and Flexible Crisis Management

- A national prioritization for the Health Sector.
- Internal coordination facilitated by the Ministry of Health to avoid abundance or scarcity in supplies and guarantee fair distribution.

Increasing Medical Equipment/infrastructure



International Community

The WHO provided:

- Medications, including immunosuppressant drugs.
- Dialysis machines at a time of an utmost need.
- Urgent supplies for the dialysis sessions.
- Supplies for peritoneal dialysis.
- C.R.R.T machine, and supplies.
- Electricity rationing had minimal impact due to the provision of an electricity generator by the WHO of 1250 KVA. This is in addition to what is already available.

International Community

The collaboration with the Syrian Arab Red Crescent [SARC] proved to be extremely useful and helpful:

- Since the beginning of the conflict, SARC has provided emergency medical care, ambulance services and first aid for tens of thousands of people. A hotline [#dial133] for emergency support was also introduced by SARC.

- During the water crisis, the Red Crescent provided sufficient supplies of water throughout the period of shortage.

Civil Society

Civil Society donated Hemodialysis Machines. Also, intensive coordination was carried out with the civil society organizations to support renal care in Syria.

A large number of new renal failure patients were also supported by civil society organizations.

This has freed the government health facilities to admit patients from rural and impacted areas.

Preparedness

What is HeRAMS?

Health Resources Availability Monitoring System

The Standard Health Cluster tool that should be used as soon as possible and throughout the duration of a crisis for the collection, collation and analysis of health sector information for each facility, mobile clinic or site with community-based interventions in order to monitor the availability of resources.

Preparedness

- Key Characteristics of the points of delivery (urban/rural area, IDP/Host Community).
- The Facilities (functioning/nonfunctioning, temporary/permanent, active health partners, management, other).
- Number of staff (by type).
- Availability of services.

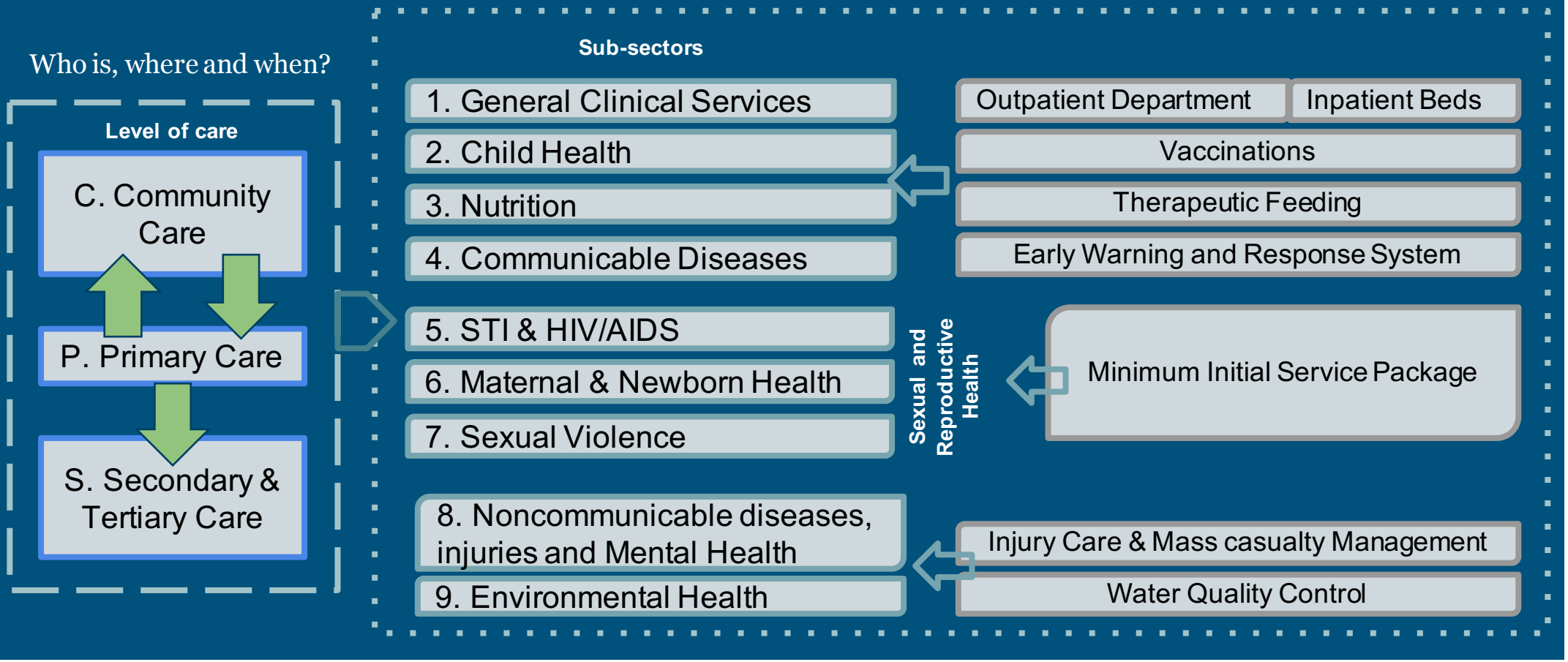
Preparedness

Planning for the needed supplies, materials and equipment are developed according to the data generated by the HeRAMS system.

HeRAMS has helped so far in obtaining accurate data in a quick and convenient manner.

HeRAMS joins a network of dynamic and well connected liaison officers, based in each functional medical facility. The officers coordinate with each other on weekly basis to ensure timely update of data.

Preparedness- HeRAMS



Recommendations

- Prioritizing the health sector.
- Coordination between healthcare providers and donors is very important to provide services for as many patients as possible given available resources.
- Aspire to be preventative rather than curative in planning.

Recommendations

- Concrete precautionary measures should be in place in preparation for the occurrence of any suboptimal circumstances.
- Promote for Universal procedures and guidelines for the provision of renal care during crises; including the suggestion of viable options.
- The collaboration with the international and local communities has proven to be essential for maintaining an adequate level of health care during times of suboptimal circumstances.

Recommendations

- Diversification in pharmaceuticals is necessary. Unbiased systematic and regular evaluation for substitute medications, including local industry, should be considered in preparation for suboptimal circumstances.
- Separating the political from the humanitarian: the right for medications and knowledge.
- Special attention to public hygiene and sanitation at times of crisis.

Thank You