Impact of electricity access on the performance of health centres

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Overall Objective of Powering Health Care

- High quality of health care
- Efficiency
- Safety
- Integration
- People centeredness
- Timeliness
- Equity

Role of health centers for national health care

Primary Health Care Concept

- Multi-sectoral prevention measures
  - General knowledge on identification, prevention and treatment of health problems
  - Nutrition
  - Potable water and sanitary measures

- Preventive medicine
  - Healthcare for mother and child including family planning
  - Vaccinations

- Curative medicine
  - Medical treatment of common diseases and injuries
  - Supply of essential medicines
Performance indicators for health centres - effectiveness

- primary indicators (14) -

- No of Households informed about gen. preventive measures
- No of successful immunizations in relation to needs
- No of outpatient attendees in relation to HC capacity
- No of deliveries attended in relation to needs

- secondary indicators (45) -

- No of information events about preventive measures
- No of individual counselling on preventive measures
- Average No of monthly immunizations
- Incidence and rate of immunization complications
- Stock of vaccines in comparison to demand
- Outpatient attendees
- Emergency patients
- Mortality rate of emergency patients
- Quality of wound treatment
- Regular check of quality and stock of drugs
- No of deliveries (livebirth and stillbirth)
- Type and number of medical interventions
- Institutional maternal mortality
- Neonatal deaths within 24 hours after birth
## Performance indicators for health centres - safety

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
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<tbody>
<tr>
<td>Health centre acquired infection rate</td>
<td>Number of infections acquired by wound treatment</td>
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<tr>
<td>Quality of cleaning, disinfections, sterilization</td>
<td>Quality of safeguards against infection risks</td>
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<tr>
<td>Regular quality checks of drugs and vaccines</td>
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**Rate of medical malpractice and accidents**

- No of infections acquired by wound treatment
- Quality of cleaning, disinfections, sterilization
- Quality of safeguards against infection risks
- Quality of rules and practice of workplace hygiene
- Quality of cleaning and maintaining appliances
- Quality of waste management
- Registration of notifiable highly infectious diseases
- No of trainings to update knowledge and skills
- Diagnostic capabilities
- Completeness of patient medical records over time
- Regular quality checks of drugs and vaccines
- Quality of storage of heat-sensitive drugs, vaccines
Performance indicators for health centres – people centredness and timeliness

People centredness

Overall patient satisfaction

- Easy comprehensibility and completeness of information for patients
- Patient satisfaction with individual services
- Patient satisfaction with manners of medical staff

Overall medical staff satisfaction

- Staff satisfaction with training opportunities
- Staff satisfaction with working conditions
- Staff satisfaction with living conditions

Timeliness

Waiting time

- Average waiting time for outpatients
- Average waiting time for emergency cases
- Availability of a patient phone service
Performance indicators for health centres – equity, integration, efficiency -

**Equity**
- Equal treatment of patients
  - No of patients according to origin, language, gender
  - Treatment costs for patient

**Integration**
- Intensity of cooperation with clinics
  - Referrals made per day, month, year
  - Communication of all relevant patient data to clinics
  - Regular information exchange with clinics

**Efficiency**
- Efficiency of outpatient services
  - Inpatient-day equivalents per physician, nurse, midwife
  - Emergency treatments per physician, nurse, midwife
- Efficiency of inpatient services
  - Outpatient-day equivalents per physician, nurse, midwife
  - Utilization rates of beds
- Cost efficiency
  - Costs per outpatient, inpatient
  - Cost structure
Performance Dimension - safety

- Low health centre acquired infection rate:
  - High quality of wound treatment
  - High quality of cleaning, disinfections, sterilization
  - High quality of safeguards against infection risks
  - High quality of workplace hygiene
  - High quality of waste management
  - Registration of notifiable highly infectious diseases

- Low medical malpractice and accident rate:
  - High rate of correct diagnosis and treatment
  - Complete medical records of patients over time
  - High quality of drugs and vaccines

- Primary objectives:
  - Disinfection system for instruments & materials
  - Professional hygiene system
  - Professional maintenance system for appliances
  - Effective waste management system
  - Data management system for highly infect. diseases
  - Training to update diagnostic and treatment knowledge and skills
  - Management system for patent data
  - Regular quality checks of drugs and vaccines
  - Cold storage of heat-sensitive drugs and vaccines

- Secondary objectives:
  - Electricity +
    - Light
    - ICT
    - Refrigerators
    - Waste Equip.
    - Water Pumps
    - Lab. Equipm.

- Standards/management system:
Observations from the field and general conclusion

1. Access to electricity = facilitator for improving performance of HC but not a sufficient condition
2. Broad impacts need time
3. In addition to electricity access, combination of measures needed:
   - acquisition of suitable equipment
   - implementation of high quality standards and management systems
   - regular improvement of skills
4. Access to electricity relevant for
   - medical diagnosis, treatments and immunization
   - general prevention measures,
   - data, information and knowledge management
   - communication with patients and referral clinics
5. Performance improvement achievable with low amounts of energy
Thank you for your attention.

Funded by:

- German Cooperation
- Ministry of Foreign Affairs of the Netherlands
- Swizerland
- Swiss Agency for Development and Cooperation SDC
- Sweden

Coordinated by:

- GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
- Netherlands Enterprise Agency
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