Offering Diagnostic Imaging Services in Public Hospitals: A Successful Public-Private Partnership Model

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Introduction

Challenges in delivering public health services:

- Low availability of imaging technology
- Rapidly growing demand for imaging tests
- Low bed turnover
- Hospital overcrowding

State Government limitations:

- Financial and logistical resources to handle new investments
- Human resources such as an adequate number of radiologists

Purpose

Improve the availability, operations and maintenance of diagnostic imaging services in publicly administered hospitals, thus increasing bed turnover rate and reducing long waiting times for patients.
Contract Characteristics

- Guaranteed monthly global payment legally institutionalized
- 10 quality and 7 availability indicators to guarantee higher efficiency
- An independent external verifier to monitor contract compliance and verify private sector performance
- If the key performance indicators are not met, the government can enforce penalties in the form of payment deductions
- All employees, including receptionists, technicians, nurses as well as remote radiologists are hired and managed by the private partner
- 11.5 years of operation
Key Performance Indicators

Availability
- Exam Schedule
- Report Delivery
- Equipment Availability
- Problems solution

Quality
- Waiting time
- Recall Rate
- Cancellations
- Physician and Patient Satisfaction

KPI evaluation
(Independent Verifier)

Performance factor

Payment amount calculation
Results

- Only 2 available MRI scanners in the state → PPP installed 6 new MRI scanners
- Improvement in access to exams for both inpatients and outpatients who depend on the public health care system
- Average number of MRI scans in 2018: almost 8-fold compared to the reported numbers in 2011
- Average number of CT scans in 2018: more than 2-fold compared to the reported CT scans in 2011
- Around 1.5 million diagnostic exams performed by the end of 2019

Increased numbers of CT and MRI scans performed
Results

Prior to this project:
- Hospitalized patients took up to 20-30 days to perform CT or MRI scans
- Outpatients or patients hospitalized in other public hospitals: lower access
- Some hospitals only had reports for 10-20% of the CT performed, sometimes handwritten
  - No RIS
  - Reports took 7-10 days to be released

Currently:
- Most patients admitted to PPP hospitals receive their exams on the day they are prescribed
- Patients from other public hospitals receive them in 2-3 days
- All CT and MRI scans have reports
- Computers installed in key sectors of the hospital with immediate access to the images and reports
  - Urgent: 2 hours
  - Inpatient: 12 hours
  - Outpatient: 2 days

Quality Assessment

- Organizational Climate - Employees: 79%
- Organizational Climate - Radiologists: 86%
- Patients Satisfaction: 97.60%
- Prescribing Doctors Satisfaction: 95.00%
- Net Promoter Score (NPS): 96.50%
Results

Prior to this project:
- Outdated x-ray and CT equipments
- Less than optimal equipment maintenance
- Out of service from 2-6 months either due to the need of an x-ray tube, software configuration or a fuse replacement

Currently:
- Penalty if service is discontinued
- In case of defects in the equipment, the private partner has the responsibility of contracting the exams in another private hospital as to continue offering the diagnostic exams.
- New equipment with continuous maintenance contract
Before
This is the first diagnostic imaging PPP model of health care delivery in Brazil

Increase the availability of diagnostic radiology services in the state

Enormous improvement in access to diagnostic imaging exams for patients who depend on the public sector for health services, free of charge to patients