Public Disclosure Authorized

Public Disclosure Authorized

Knowledge Brief

WORLD BANK GROUP
Health, Nutrition & Population

Health, Nutrition and Population Global Practice

Increasing the Number of Major Outpatient Surgeries to Reduce the Waiting List in Costa Rica

Ana Lucia Rosado Valenzuela, Ashley Sheffel, Micaela Mussini, Ana Maria Lara Salinas, Laura Di Giorgio

August 2023

KEY MESSAGES:

- Major outpatient surgeries have been shown to be cost-effective models of care compared to surgeries requiring hospitalization - they reduce hospital costs, make it possible to focus limited resources on more severe cases, help reduce the waiting list, and allow patients to recover at home by eliminating the risk of nosocomial infections.
- The Costa Rican Social Security Fund progressively increased the percentage of major outpatient surgeries to more than 43% of the major surgeries performed in the system.
- With the increase in outpatient major surgeries, Costa Rica reduced by 60% the waiting time (days) for other major surgeries.
- Motivation for waiting list reduction, communication, and collaboration between levels of care and implementing centers, and the identification and utilization of available infrastructure and resources have been key to the increase in major outpatient surgeries.
- The implementation of changes in the delivery of health services can present significant challenges due to the standardization of clinical guidelines and the approval of operating manuals.

Introduction

In just five years, major ambulatory (outpatient) surgeries (MAS) in Costa Rica increased from 18% to more than 43% of all major surgeries performed by the Costa Rican Social Security Fund (CCSS, for its name in Spanish, Caja Costarricense de Seguro Social), in six selected diagnoses (varicectomy, hernia, salpingectomy, bone biopsy, removal of bone-synthetic devices and laparoscopic cholecystectomy).(1, 2) MASs have increased in popularity globally as a model of care that offers benefits in reducing hospital costs by preventing patients from being hospitalized (and thus occupying a hospital bed), helping to focus limited resources for more severe cases, enabling waiting list reduction, and allowing patients to recover at home by eliminating the risk of nosocomial infections. (3)

One of the biggest problems faced by the CCSS is the waiting lists at the third level of care, which, among other things, has a major impact on the judicialization of healthcare. However, Costa Rica has made progress in implementing an MAS program to improve the situation and achieve timely care for its patients. (4)

As in many other countries, Costa Rica has seen an increase in the popularity of MASs. An evaluation conducted in 2018 showed that CCSS historical records evidenced a progressive increase in these procedures

from 2010 to 2018. These surgeries are mainly performed in the 29 second and third level hospitals of the CCSS, and only six of them concentrate close to 50% of the MASs performed in the Institution.(2) On the other hand, of the total number of procedures on the CCSS surgical waiting list, 70% could be performed by MAS.(5) This makes the MAS an ideal way to reduce the surgical waiting list.

MAS enhancement in the CCSS has been catalyzed through the Program for Results (PforR), a World Bank financial instrument that incentivizes the achievement of strategic objectives and goals of programs in which governments seek to improve the use of general public expenditures or improve their performance using their own processes and institutions. In Costa Rica, this program ran from 2016-2023 for the Strengthening of Universal Health Insurance. Its initial objectives included modernizing and strengthening the primary health care network, improving the quality of services, increasing population coverage, and making the network more capable of prevention, early diagnosis and control of diseases relevant to the local, national and regional epidemiological profile. In addition, the objective was also to improve the institutional and financial efficiency of the CCSS.(1)

In addition, the increase in the number of MASs was possible due to the use of some facilitators that allowed their adequate development and to the effort that continues to be made in the CCSS to overcome the barriers and challenges encountered along the way. This knowledge report is part of a broader series of knowledge reports developed by the World Bank on PforR in Costa Rica. This report aims to describe facilitators, challenges and main lessons learned during the initiative to increase MASs for waiting list reduction, with the objective of providing important inputs for other countries interested in implementing similar programs.

Background

In 1985, the first MAS procedures began to be implemented in Costa Rica. Their initiation was the result of the interest of hospital health personnel in implementing innovative methods that they had learned during their training abroad. (6) The first hospital to implement them was Hospital Mexico. Following this pioneer hospital, some other tertiary care hospitals began to perform MAS.

Subsequently, in 2001, and with the enthusiasm to generate an increase in these surgical care processes, the CCSS selected the procedures to be performed on an outpatient basis, the specific rules for their execution, and the general regulations of the facilities that decided to implement them. One year after these revisions, the institution's first "List of Outpatient Interventions" was published and updated three years later. Subsequently, in 2004, a project was generated to strengthen and modernize the health sector, which promoted all outpatient solutions. In addition, in 2006, an indicator for the evaluation of MASs was included in the Management Commitments of the CCSS. (2, 7)

Until then, the hospitals that performed AMS in Costa Rica did so under their own internal manuals and without institutional guidelines. For this reason, in 2015, the Medical Management generated the Plan for the Institutional Strengthening of Ambulatory Surgery. However, more work is needed to implement it in a coordinated and comprehensive manner, as the need for institutionalization of an MAS program still persists. (5)

Major Outpatient Surgeries in the face of the Outcomes Program

One of the priorities established in the 2016 PforR planning was to increase the number of MASs in order to reduce the surgical waiting list. The CCSS defines MASs as procedures with admission and discharge in less than 24 hours.(5) Which, avoids the hospitalization of the patient and the occupation of a hospital bed reducing then the waiting list and improving the health care model and reducing hospital costs.(1) These objectives were linked to Disbursement Linked Indicator #1 (ILD 1) of the PforR: "Percentage of major surgeries on the priority list performed on an outpatient basis according to CCSS institutional guidelines". Initially, this indicator would be met if after five years, MASs reached at least 43% of the total number of major surgeries performed in the institution. On the other hand, the procedures agreed upon as priorities to be measured within this indicator were:

1. Varisectomy
2. Hernioplasty
3. Removal of osteosynthetic material
4. Bone biopsy
5. Salpingectomy
6. Laparoscopic cholecystectomy

Through the impulse of the PforR, and with the precedent interest of some hospitals of the CCSS, a new intention to increase the number of AMS was generated. To achieve this, in July 2017, the Major Ambulatory Surgery Commission was formed to resume what was established in the Institutional Strengthening Plan for Ambulatory Surgery published in 2015. Accordingly, the Commission was responsible for developing strategic and technical documents for the advancement of the plan (5):

- Operational Manual for the Implementation of an Ambulatory Surgery Program.
- Work Plan to Strengthen Ambulatory Surgery at the Institutional Level.
- Workshop for the Socialization of the Operating Manual.
- Diagnostic Survey of General Conditions for the Implementation of Ambulatory Surgery Program.

The Operational Manual was submitted to the CCSS Medical Management in November 2018 but has not yet been approved, limiting the standardized implementation of the program at the institutional level. Instead, implementing hospitals and health centers have progressed with the development of ILD 1, through great individual efforts. In turn, with the common goal of reducing the waiting list, there has also been collaboration with the Technical Unit of Waiting Lists (UTLE), a technical body attached to the Medical Management of the CCSS, which analyzes and monitors statistical data on the waiting list throughout the institution (surgeries, procedures and outpatient), in addition, it has an allocated budget to implement resolution modalities that improve them.

Strategic Planning and Implementation

Technical guidance and follow-up for the increase of MASs is performed by the Major Ambulatory Surgery Commission.(5) The implementation of these surgeries was carried out in the 29 hospitals and in some first level care centers of the system. Hospitals have been key in increasing the proportion of AMS. The main reason for them to achieve this positive change was a call for institutional action to reduce long waiting lists in different services and procedures. This call allowed hospitals that had already been implementing MASs for decades to find ways to increase them even more, and hospitals that had low numbers of MASs to gradually increase their proportion. To achieve this, all hospitals had the guidance and technical support of the Major Outpatient Surgery Commission at their disposal, if requested.

At the same time, there was innovative collaboration between different levels of care in some of the seven Integrated Health Services Delivery Networks (RIPSS), which are the networks in which the Institution decentralizes the delivery of its services. There are four Comprehensive Health Care Centers (CAIS) throughout the CCSS system. These health units are part of the first level of care and have specialized services and installed capacity (operating rooms and health personnel) for outpatient procedures. As a result, the RIPSS that have a CAIS in their territory generated agreements and collaborations to transfer outpatient procedures from the hospitals to the CASIs, in order to take advantage of this installed capacity.

COMPLIANCE WITH THE INTERVENTION INDICATORS

In 2013, the percentage of priority MAS procedures within the PforR accounted for only 18% of all major surgeries. Just 5 years later, in 2018, it was possible to increase this percentage above the target of 43% established as part of the PforR. With this, the CCSS achieved compliance with the indicator agreed, in conjunction with the World Bank, at the beginning of the program.

In addition, there is an intermediate indicator that is of great interest for this project, the decrease in the waiting list for hip and knee replacement surgeries. This indicator allowed the measurement of one of the main objectives of the MASs, to improve efficiency and reduce waiting times in care. In 2015 the wait for knee or hip surgery was 1,032 days. Thanks to increases in the MAS, and other hospital efficiency programs implemented by the CCSS (e.g., the evening surgery program, surgeries that are performed outside of regular working hours to make efficient use of installed capacity), this indicator dropped by 60% by 2018, reducing the wait to 422 days; a goal that far exceeded the original goal set of a 35% reduction.(1, 8)

On the other hand, although institutional evaluations have not yet been made, some units have conducted satisfaction surveys of their MAS patients and the responses regarding their care have been positive. (6)

FACILITATORS

The increase in MASs was achieved in part by the correct conjunction of some specific factors.

Timely care as an institutional priority for the CCSS: There is great institutional interest and commitment in the reduction in the waiting list. As a result, this priority has been integrated into the Institutional Strategic Plans, and action plans (for example, the Timely Care Plan) and departments responsible for implementing projects (such as the UTLE) have been created to reduce waiting times.(4, 9, 10, 11) All this becomes a great catalytic platform for MASs.

Creation of a specific commission: The creation of the Major Outpatient Surgery Commission allowed progress to be made in the agreements necessary for the generation of key documents to advance in the institutionalization of MASs, communication and follow-up of priority indicators in hospitals, as well as training and mentoring in the health centers that required it. (6)

Networking: The CCSS decentralizes the management of health services to the seven RIPSS that comprise it. In each of them, there has been an active channel of communication between the Medical Management, the directors of the RIPSS, the hospitals and health centers, to encourage the increase in the number of MASs. (9) In addition, this important collaboration has been generated for the transfer of patients waiting for surgery in the hospitals to the CAIS, in order to improve the waiting list.

Taking advantage of installed capacity: CAIS operating rooms were originally created for vaginal or cesarean births, but the demand for their use for these purposes has been low. Hospitals saw this opportunity to transfer and perform their MASs in these centers, taking advantage not only of the infrastructure, but also of the personnel available in them.(6)

Existence of a digital health record: In 2018, the integration of the Single Digital Health Record (EDUS) was completed in all CCSS hospitals. One component within the EDUS is the EDUS-ARCA system, which allows virtual follow-up of patients' clinical and surgical history from any health center. This portability of information between levels of care is vital in ambulatory processes as it allows the clinical record to be traceable throughout the ambulatory care continuum.

Being a PforR objective: The increase in MASs was one of the indicators promoted through the PforR, by common agreement between the CCSS and the World Bank. This ensured that the actions established are being effective in achieving the projected goals for reducing the waiting list through MASs.

Figure 1. Comprehensive Health Care Center in the town of Desamparados. Credits: Soto, Adrián. (12)

CHALLENGES ENCOUNTERED

Institutional progress in increasing the proportion of MASs has presented some barriers that continue to be addressed to date.

Governance and leadership: Although the CCSS has shown great interest in the issue of timely patient care, the lack of a technical body responsible for the standardized implementation of the project in the health centers has resulted in unclear roles and responsibilities. Actions are divided between the Commission and the UTLE. (5)

Bureaucracies and administrative inefficiencies: Approval times for the Operating Manual have been very long due to internal bureaucracies.(13) Process that intensified with the disruption from the COVID-19 pandemic. This delay has limited the potential institutionalization and standardization of the MAS program in the CCSS, including the regulatory framework, the organized structure, surgery scheduling and control mechanisms, among others. (5)

Independent implementation: Hospitals implement their MAS programs independently, in the absence of institutional standardization. Although this allowed hospitals to explore innovative approaches from which the Institution could learn, it has also led to differences in the proportion of MASs performed by hospitals. One of the reasons for this difference is the availability of resources at each hospital. The institutionalization of an MAS program will be important to level out these

differences between hospitals and ensure the same standards and processes, according to the local context.

Regional differences: Although there is a desire to increase the percentage of MASs in all hospitals, the contextual reality and the variability of available resources (location in rural areas and lower budgets) make this difficult. For example, there are centers that do not have timely access to specialized medical equipment in the event of any post-surgical complication.(14) Therefore, these facilities present more challenges in the implementation and a greater fear by the health personnel of performing MAS. It is therefore important to remember that the implementation of MAS needs to be adapted to the local context.

Limited human resources: The limitation in the number of human resources needed to perform MAS has been one of the main barriers to reducing the waiting list. In addition, the distribution is inequitable among the different units in the country. In spite of this, programs are being established to improve the equitable distribution of health personnel in areas with the greatest backlog and to take advantage of the infrastructure available in other facilities.

Standardization of clinical guidelines: At the beginning, the process of agreement to structure the clinical guidelines for patient selection and the procedures selected for MAS was complicated. The main challenge was the diversity in clinical criteria among health professionals. Fortunately, this was resolved thanks to the creation of the MAS Commission, which favored the discussion and agreement of the guidelines.

Resistance to change: At the beginning, some physicians showed resistance to the implementation of the ambulatory care model due to fear and lack of knowledge about it. This resistance diminished as we noticed successful cases of MAS and patients' requests to be treated on an outpatient basis. In addition to witnessing the positive experience in its implementation and the benefits of generating more capacity in the Costa Rican health system.

Rapid advancement in technologies and update of procedures eligible as ASC: Due to the great technological advancement in surgery, the procedures to be performed under ASC and the clinical guidelines necessary for their execution change rapidly.(14) Due to this, the list of procedures authorized to be performed under MAS has to be constantly updated. It was last updated in 2004. It is therefore important to have a routine updating system.

COVID-19: The COVID-19 pandemic caused disruption in the delivery of hospital and administrative services.(15) As a result, pending approvals of the Operational Manual and the accelerated increase in MASs were paused for about two years. Fortunately, the administrative and clinical processes are being reactivated.

THE ROAD AHEAD AND THE GAPS TO BE CLOSED

The next steps for the CCSS to advance in MASs in an institutional manner include the approval of the Operational Manual and the generation of a routine system for updating the list of procedures. With this, major outpatient surgeries can be implemented in a more standardized manner throughout the institution. This progress would allow the expansion of these procedures to other first or second level health centers, as has been achieved in the CAIS. On the other hand, and in order to continue improving the provision of services, we intend to evaluate the impact of MASs on hospital efficiency (e.g., in the reduction of hospital costs) and patient satisfaction.

Box 1 summarizes some of the lessons learned in this initiative to increase MAS in the CCSS, so that these can serve as a guide for other institutions or systems that wish to implement a similar program.

The CCSS will continue to advance on its path towards improving hospital efficiency by growing its network of MAS implementation throughout the system. These future advances will bring further reductions in costs and waiting lists, better utilization of hospital beds, and above all, improved satisfaction of health service users.

Box 1. Lessons learned

- MASs are one of the models of care that has led to the successful reduction of the surgical waiting list at the Caja Costarricense de Seguro Social (Costa Rican Social Security Fund).
- Obtaining the political will and support of the Institution's senior management is important to prioritize actions to increase the number of MASs and to speed up the manual and implementation guide approval processes.
- Allowing hospitals to implement different approaches to increase MAS made the Institution aware of various forms of implementation by the main implementers.
- In order to guarantee an equitable system, an institutional standardization process that takes into account the contextual difference by region is necessary.
- Collaboration between different levels of care in regional contexts made it possible to take advantage of the installed capacity to increase the proportion of MASs.
- The model of collaboration and transfer of ambulatory surgeries between levels of care has been so successful that for the future increase in the proportion of MASs, the necessary means will be sought for its implementation at the national level.

The World Bank's Health, Nutrition and Population Knowledge Briefs are a quick reference on key aspects of specific HNP-related topics that summarize new findings and information. They can highlight a problem and key interventions that have proven effective in improving health, or disseminate new knowledge and lessons learned from the regions.

For more information on the topic, visit: www.worldbank.org/health.

Generous funding support for this series of Knowledge Briefs was made possible by The Access Accelerated Trust Fund.

References

The World Bank. Program Appraisal Document for a Strengthening Universal Health Insurance in Costa Rica. Program-for-Results. 2016.

2. Bronstein Krausz LD. Verification Report: disbursement-linked indicator #1/Milestone 1: Increase in major surgeries in ambulatory settings Pan American Health Organization; 2018.

3. Recart A. MAJOR AMBULATORY SURGERY. A NEW WAY OF UNDERSTANDING SURGICAL MEDICINE. Clinica Las Condes Medical Journal. 2017;28(5):682-90.

Costa Rican Social Security Fund. Plan for the Timely Care of Individuals. 2017. p. 61.

5. Costa Rican Social Security Fund. Internal Audit: SPECIAL STUDY ON AMBULATORY SURGERY AT INSTITUTIONAL LEVEL. 2019.

6. Morera JC. Interview with the CCSS/BM Outcomes Program - Major Outpatient Surgeries. In: Rosado Valenzuela AL, editor. 2023.

Costa Rican Social Security Fund. Informe de Evaluación de los Compromisos de Gestión 2008-2009. 2010.

CCSS/WB Program for Results. Matrix Report: Comprehensive Progress Report on the CCSS-World Bank Program for Results. 2022.

9. Vega Martínez LC. Major Outpatient Surgery Interview, Programa Por Resultados CCSS/BM. In: Rosado Valenzuela AL, editor. 2023.

Costa Rican Social Security Fund. Institutional strategic plan 2015-2018. 2015.

Costa Rican Social Security Fund. Institutional strategic plan 2019-2021. 2019.

12. Soto A, Ávalos Á. Sanitary order leaves without emergency surgeries to CAIS of Desamparados. La Nación. 2022.

13. Arroyo LP. Interview Program by Results CCSS/BM. In: Rosado Valenzuela AL, editor. 2023.

Cambronero E. Interview Program by Results CCSS/BM. In: Rosado Valenzuela AL, editor. 2023.

15. Prensa Latina. Costa Rican Health System resumes services to the population. 2022.

Cover photo credits to Mayela López, La Nación, CCSS wants to increase outpatient surgeries to lower waiting lists , 2017. https://www.nacion.com/el-pais/salud/ccss-quiere-aumentar-cirugias-ambulatorias-para-bajar-listas-de-espera/W57BVAQ7EFCWDH56QAHZM4PFGU/story/