Monitoring drug shortages using the "MonitoraAF" software as a management tool for pharmaceutical care and drug market monitoring.

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INTRODUCTION

SUS (Unified Health System) is Brazil's publicly funded health care system and the largest government-run public health care system globally.

It provides services for virtually 100% of the Brazilian population, approximately 220 million people, covering a land area of 3.3 million square miles. More than 75% of Brazil's 210 million citizens rely solely on SUS for health services, ensuring care across various regions and demographics.

With over 50,000 clinics, SUS offers treatment **entirely free of cost** at the point of service to all individuals, **including foreigners**.

INTRODUCTION

Pharmaceutical Assistance in Brazil:

SUS guarantees access to essential medications, though it faces challenges related to supply chain logistics and funding. Brazil's extensive size and population, coupled with its reliance on external sources for medications, especially those standardized under SUS, present additional complexities.

The Covid-19 pandemic further strained the global healthcare system, leading to shortages of critical medications, impacting both hospital supplies and community pharmacies in Brazil.

INTRODUCTION

Pharmaceutical Assistance:

In <u>Santa Catarina State</u>, the pandemic highlighted the need for improved organizational processes within the public health system to effectively address these new challenges.

Real-time mapping and monitoring of medication shortages are crucial across numerous public pharmaceutical and hospital establishments in Santa Catarina, as the existing inventory systems lack interconnectivity.

OBJECTIVES

Despite pandemic mitigation efforts, shortages of medicines for various health conditions persist, necessitating ongoing monitoring to alert health stakeholders, identify the need for drug redistribution, and prevent harm to the population due to medication shortages, among other initiatives.

Main objective

Develop a public software tool to identify the need for drug redistribution and prevent harm to the population resulting from medication shortages, among other initiatives.

OBJECTIVES

Specific objectives include:

1. Identifying medications facing supply and replenishment challenges within Municipal Health Departments (SMS).

2. The monitoring and development of tools were prompted by repeated reports of medication shortages by SMS.

3. Understanding the root cause of medication shortages to explore solutions related to production, market, or management.

OBJECTIVES

The objective of continuous monitoring is to:

Continuously identify medications with supply and replenishment difficulties within Municipal Health Departments (SMS).

The need for monitoring and tool development arises from recurring reports of medication shortages within SMS.

Understanding the root cause of medication shortages is crucial to finding solutions related to production, market, or management.

METHODS

In a setting where inventory systems lack integration, monitoring real-time medication shortages in public pharmacies across 295 municipalities in Santa Catarina (with a population exceeding 7.1 million) necessitated the creation of a mobile application.

This application, named "Monitora AF," was embraced by the State Council of Municipal Health Secretaries (COSEMS/SC), a branch of the National Council of Municipal Health Secretaries (CONASEMS).

METHODS

Key Points:

1. **Purpose of MonitoraAF:**
   MonitoraAF collects data related to medication shortages.
   Developed and maintained by CONASEMS.
   Addresses the lack of logistics-focused systems in Brazil, which has over 5,500 municipalities and thousands of pharmacies.

2. **Data Collection:**
   Direct consultation between CONASEMS and COSEMS (representing municipal health secretaries).
   Focus on identifying products at risk of shortage, especially due to issues in procurement processes (e.g., failed auctions).

3. **Database Management:**
   MonitoraAF records feed into a centralized database managed by CONASEMS.
   Aggregated data ensures security and resilience for ongoing data analysis.

4. **Access and Monitoring:**
   CONASEMS accesses and monitors the information alongside COSEMS.

MONITORA AF VIDEO PRESENTATION

- AQUI ESTARÁ INSERIDO O VÍDEO DO CONASEMS

RESULTS

Since the implementation of the real-time monitoring tool, there has been a noticeable decrease in notifications, underscoring its efficacy. Consequently, instances of medication shortages in the municipalities have decreased.
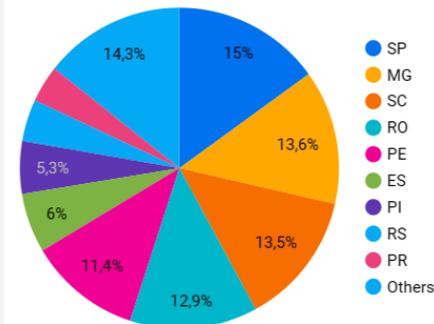
RESULTS

RESULTS
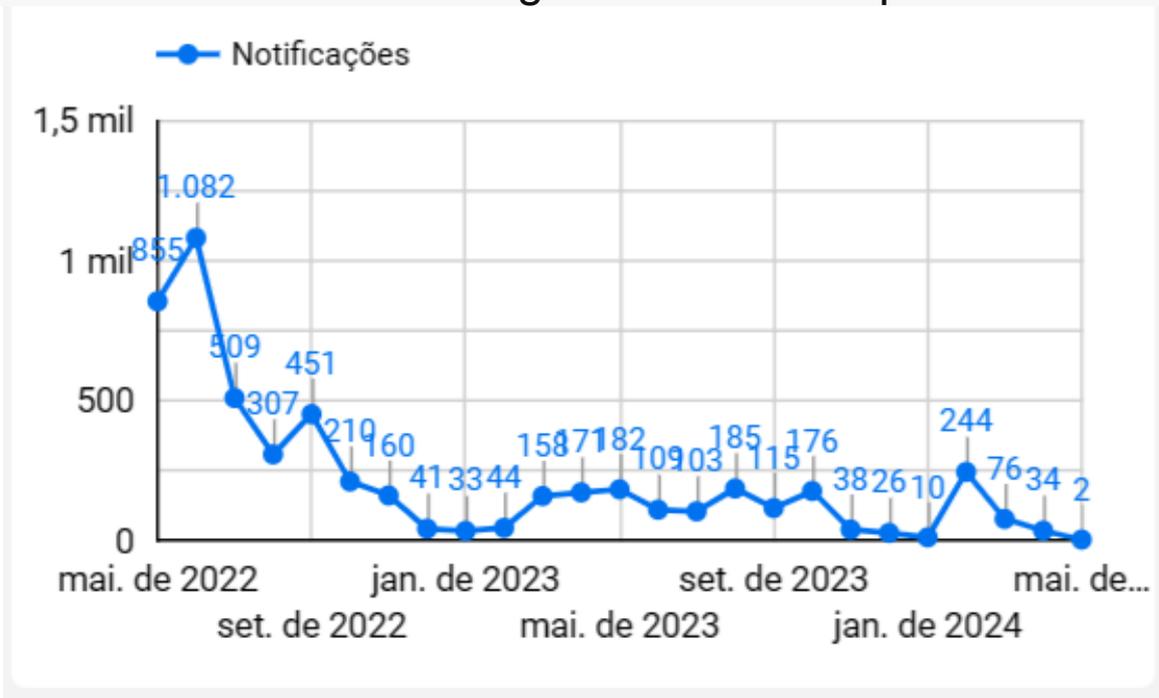
	Medicamento ⓘ ▲	Forma de apresentação	Notificações ❷ ▼
193.	BRINZOLAMIDA	10 MG/ML SUS OFT	4
194.	BROMAZEPAM	3 MG COM	4
195.	BROMAZEPAM	6 MG COM	3
196.	BROMAZEPAM	6,0 MG COM	1
197.	BROMOPRIDA	5 MG/ML	11
198.	BROMOPRIDA	4 MG/ML	8
199.	BROMOPRIDA	1 MG/ML	3
200.	BROMOPRIDA	4,0 MG/ML	3

101 - 200 / 1086   ‹ ›

- SP 15%
- MG 13,6%
- SC 13,5%
- RO 12,9%
- PE 11,4%
- ES 6%
- PI 5,3%
- RS 14,3%
- PR
- Others

Análise de notificações

Em aberto	Fechadas	Média de dias Abertura / Fechamento
4.107	1.214	137,46

Mínimo	Máximo
0	671

Notificações

RESULTS

Presently, there are around 1200 registered administrators (Health secretaries from the municipality). To date, the system has identified approximately 400 different pharmaceutical specialties through over 5000 reported notifications.

A significant portion of the notifications pertain to items standardized in the Unified Health System (SUS) for outpatient use.

The most commonly reported therapeutic groups include Analgesics, Antibiotics, and Corticosteroids.

RESULTS

The primary reasons for shortages or imminent risks of shortage include problems within procurement processes, product unavailability in the market, and delayed deliveries.

The most prevalent cause of shortages is "supplier delay," often attributed to challenges in importing or obtaining raw materials, or the product's unavailability due to heightened demand.

RESULTS

Procurement challenges encompass unsuccessful bids or empty tenders, along with difficulties in obtaining price quotations to commence the procurement process.

Delayed deliveries result from logistical problems and instances where suppliers indicate a lack of items meeting the municipality's validity criteria.

There are also reports of challenges in purchasing products offered to municipalities at prices exceeding those set by the CMED, particularly by distributors.

CONCLUSION

The Monitora AF app has successfully identified medication supply issues, especially concerning primary care drugs for the population.

The shortages were primarily caused by supplier delays, attributed to factors like raw material scarcity and high demand, with a secondary issue being suppliers not participating in bids.

This information confirms that shortages were not a result of poor management of municipal pharmaceutical assistance but were primarily driven by market-related challenges, such as insufficient production to meet demand and raw material scarcity.

CONCLUSION

Following an agreement between Conasems and Anvisa, the regulatory agency now includes data from MonitoraAF in its shortage monitoring process, leading to a decrease in market-related shortages for critical items.

However, there has been a recent increase in shortages of higher-value items centrally procured by the Ministry of Health, necessitating federal government intervention.

The current focus is on gathering qualitative information on which medications are experiencing shortages and where these shortages are occurring.

The app ensures declarants' anonymity, reflecting the Brazilian culture of not exacerbating issues by exposing them.

FUTURE PERSPECTIVES

- It is crucial for the Ministry of Health to prioritize market regulation as a strategy to facilitate the provision of essential medications in Brazil.

- The institutionalization and widespread adoption of Monitora AF as a universal reporting tool for shortages are also key objectives, with a web version currently in development.

- Expanding data input from all Brazilian municipalities is essential. Given the Brazilian context, swift and real-time monitoring is vital for enabling more effective actions by health authorities to enhance pharmaceutical assistance management, public pharmaceutical policies, and national strategies to ensure medication access.

- In the post-pandemic scenario, Monitora AF emerges as a critical tool to support pharmaceutical assistance management at the municipal level and to grasp the impacts of the global medication market on Brazil.

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