

THE 18 CRITICAL PROBLEMS IDENTIFIED

GROUP 1: OPERATIONAL INEFFICIENCY

1. **Manual Batch Assembly Inefficiency:** Photos captured on mobile → transfer to PC → insert one by one into Word → manually resize → export PDF. Consumed 2-3 hours per batch.
2. **Data Integrity Loss:** Aggressive image compression (WhatsApp/Word) made CID/CRM codes illegible, causing technical rejection by the State.
3. **Ergonomic Capture Friction:** The physical impossibility of simultaneously holding a phone, referral form, and SUS card resulted in blurry photos.
4. **Single Point of Failure (SPOF):** Total dependency on online spreadsheets meant that any network instability brought operations to a halt..

GROUP 2: LEGAL RISK AND DATA

5. **Shadow IT and LGPD Violation:** Unmanaged storage of 6,000 sensitive documents on personal devices, creating a critical data breach risk.
6. **Absence of Source Validation:** Manual entry of primary keys (CNS/CPF) without algorithmic verification allowed "silent errors."
7. **Taxonomic Inconsistency:** Naming variations for the same exam (e.g., "USG Abdome" vs "Eco Abdômen") made BI unfeasible.
8. **Financial Inefficiency Risk:** The delay between State scheduling and local updates generated duplicate requests.

GROUP 3: HUMAN FACTOR AND WORK ROUTINE

9. **Critical Cognitive Overload:** High-pressure repetitive work resulted in reported burnout among the team.
10. **Absence of Professional Boundaries:** The use of personal WhatsApp exposed staff to workplace harassment outside working hours.
11. **Underutilization of Field Team:** The disconnection of Community Health Agents (ACS) from the digital flow prevented the use of their territorial reach.

GROUP 4: ACCESS BARRIERS AND PUBLIC HEALTH

- 12. **Opportunity Cost for the Citizen:** The requirement of physical presence forced patients to miss workdays.
- 13. **Cross-Contamination Risk:** The forced crowding of sick patients at the Secretariat turned the location into a transmission vector.
- 14. **Break in Documentary Custody:** Uncertainty about who held the original referral form resulted in service refusals.
- 15. **Information Asymmetry:** Communication failures generated high No-Show rates (absenteeism).

GROUP 5: TRANSPARENCY AND CLINICAL EFFECTIVENESS

- 16. **Absence of Audit Trail (Traceability):** The lack of logs made audits impossible, leaving staff vulnerable.
- 17. **Clinical Outcome Ineffectiveness:** The system focused on the output (scheduling) and ignored the outcome (completion).
- 18. **Temporal Data Silos:** Data fragmentation prevented historical patient analysis.