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Title: An assessment of the Central Chronic Medicines Dispensing and Distribution programme in South Africa and its possible expansion.

Abstract:

Background: In South Africa, primary health care clinics are often over-extended and lack available resources to provide care to all patients. The Central Chronic Medicines Dispensing and Distribution (CCMDD) programme (also known as dablameds) was introduced to try to alleviate some of this burden on the primary health care clinics. It allows private-sector pharmacies and health facilities to apply to be pick-up points for repeat prescriptions of chronic medications with the goal of reducing traffic through primary health care clinics. This programme was introduced in 2016, but the impact of the programme since its introduction has not been thoroughly assessed.

Aim: To assess the impact of the CCMDD programme in South Africa and identify areas where the programme could be expanded.

Methods: Interrupted time series models were fitted to the clinic headcount data to assess the impact of the CCMDD programme on clinic headcounts. To identify areas where additional pick-up points should be introduced, a mathematical optimization (linear programming) analysis was conducted with the objective of maximising the potential reduction in headcounts by allocating pick-up points to the wards in South Africa, subject to several constraints. A sensitivity analysis was also conducted to evaluate how this allocation changes with variation in some of the constraints.