



Next generation immunization supply chain lowers health system costs in DRC

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Introduction

CONTEXT

VillageReach, in collaboration with the government of Equateur Province and its partners, is supporting the implementation and evaluation of an optimized supply chain model, Next Generation Supply Chain (NGCA).

IMPLEMENTATION

The primary aim of NGCA is to improve commodity availability at the service delivery point (SDP). NGCA features include:

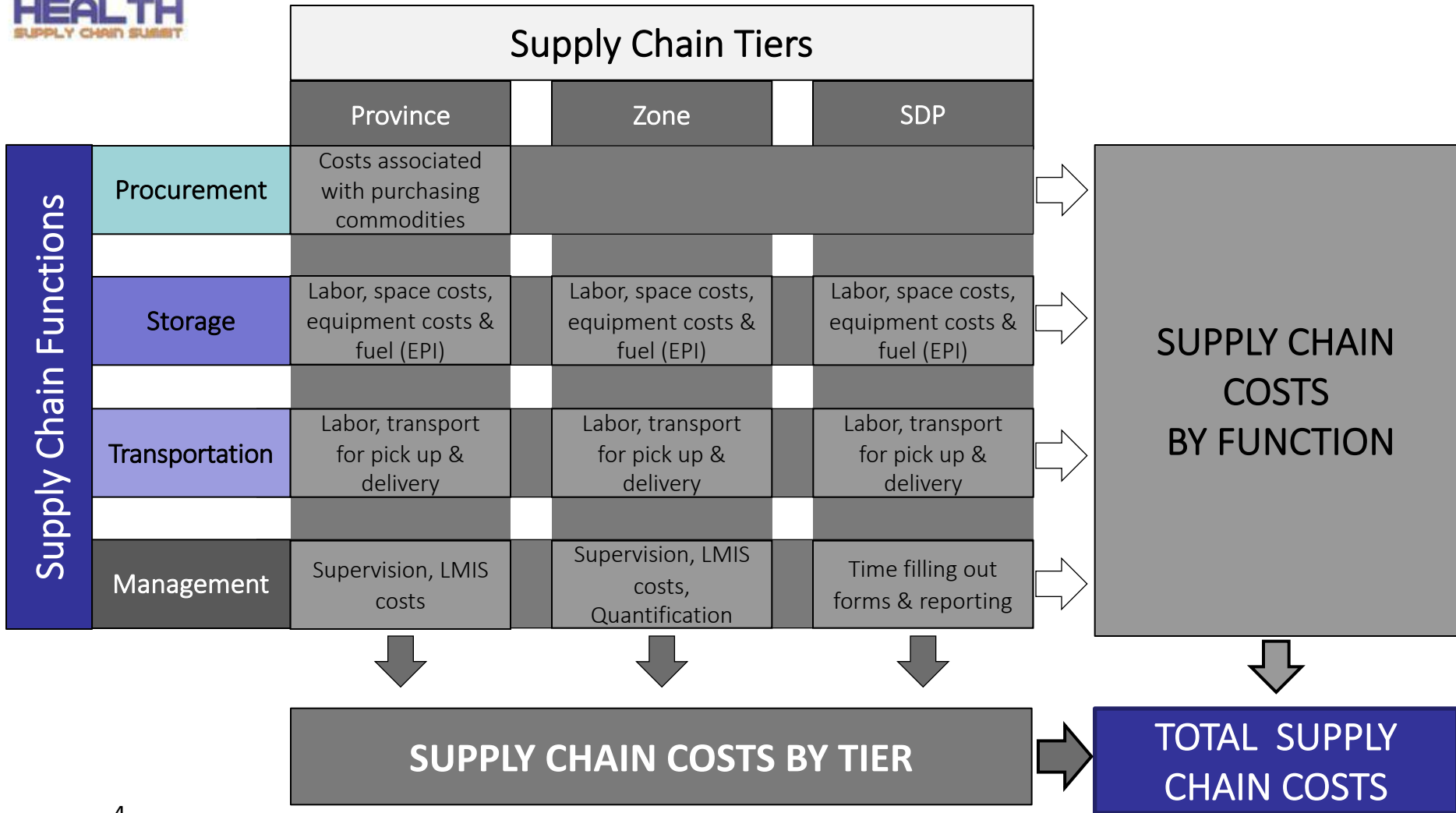
- Introducing direct deliveries to SDPs
- Lengthening replenishment intervals, and
- Sharing distributions with other commodities.

STUDY OBJECTIVE

To evaluate NGCA cost-efficiency and cost-effectiveness.



Methodology





Evaluation Periods

Period I (Pre-CCE)

Baseline; The 12-month period between September 2015 - August 2016 prior to CCE introduction.

Period II (Post-CCE)

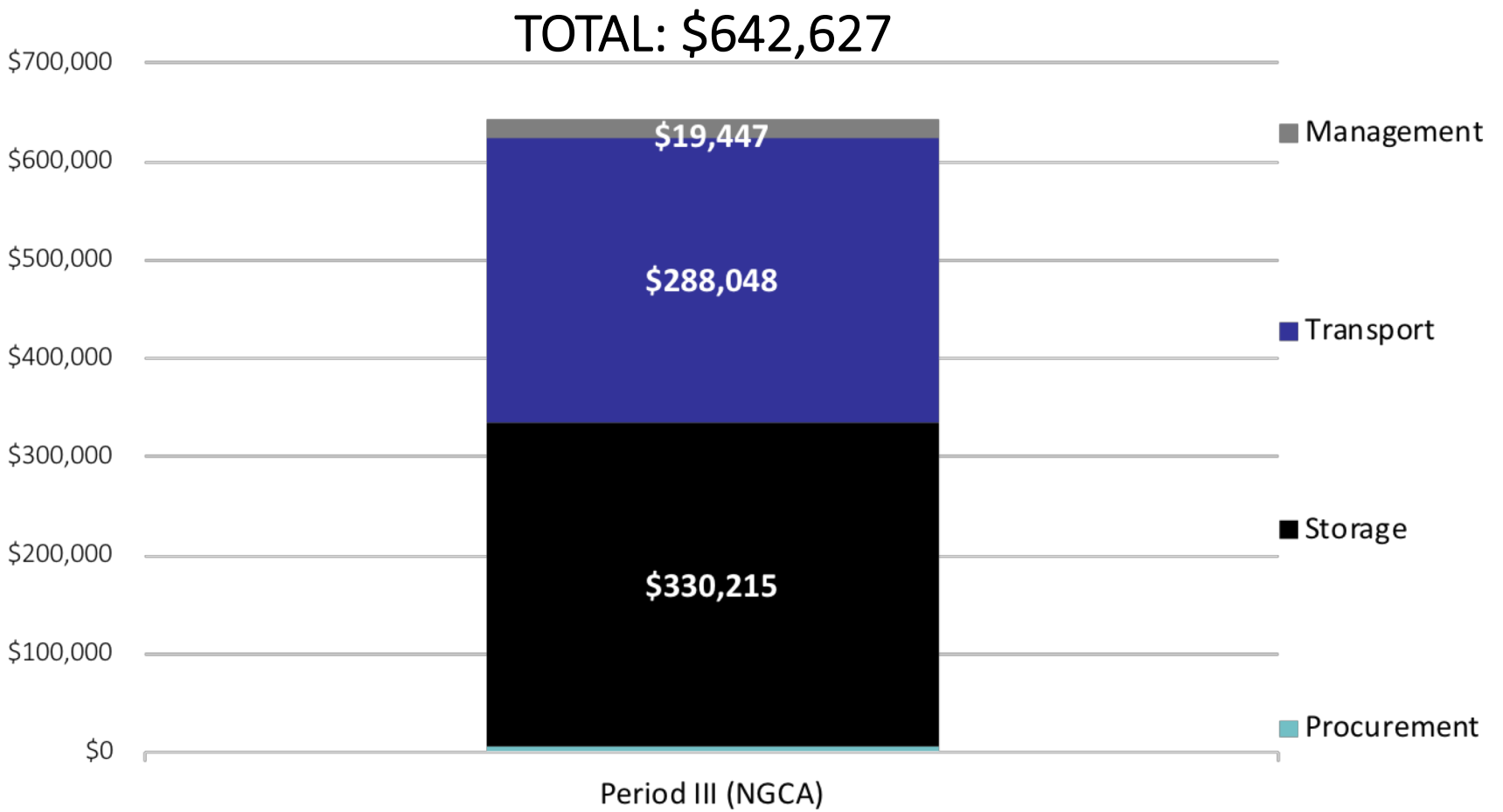
Baseline; The 6-month period between October 2016 - March 2017 after CCE introduction and prior to the NGCA implementation.

Period III (NGCA)

Endline; The 5-month period between September 2017-January 2018 during NGCA implementation.

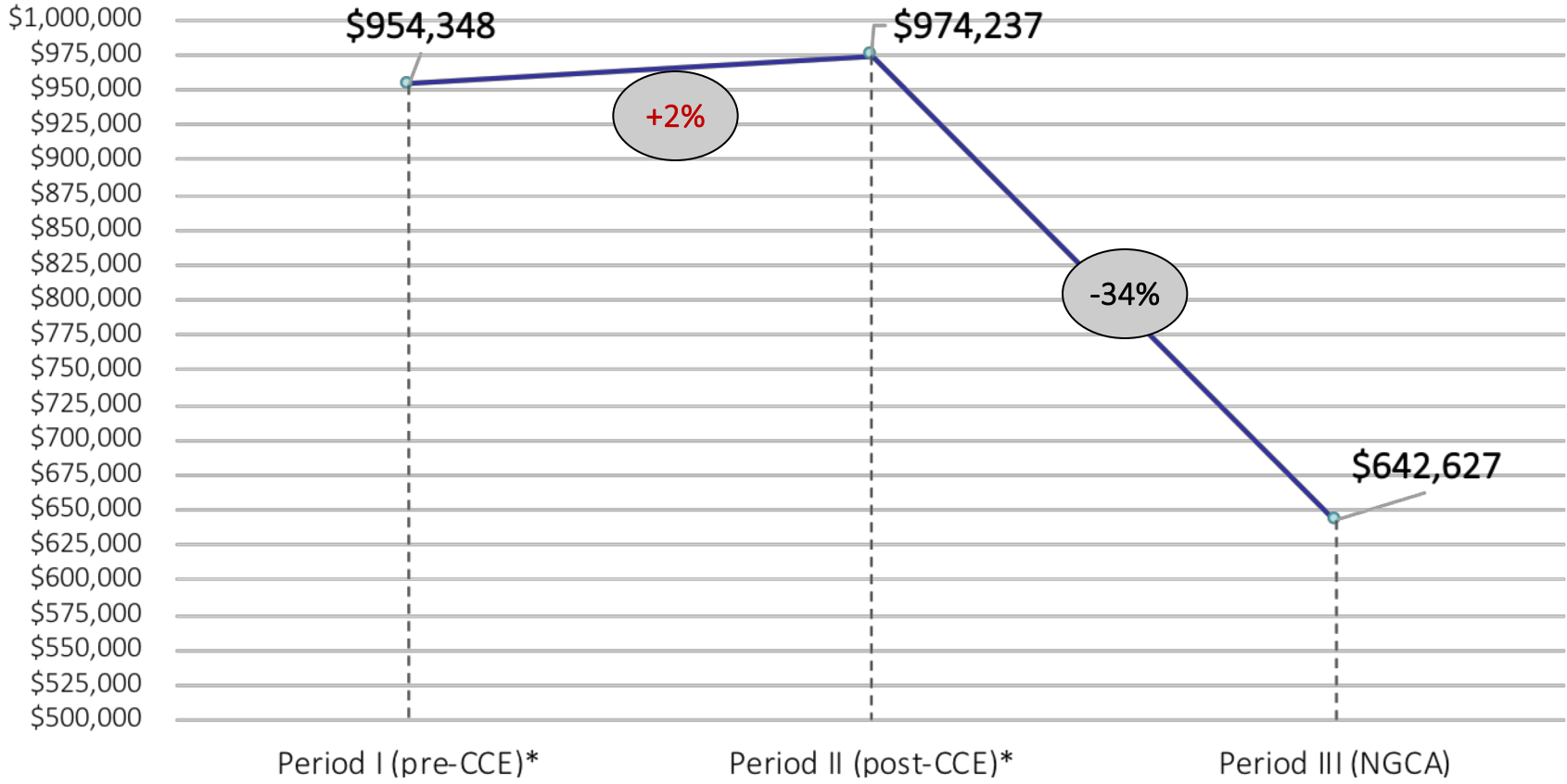


Total Estimated Provincial Costs for NGCA





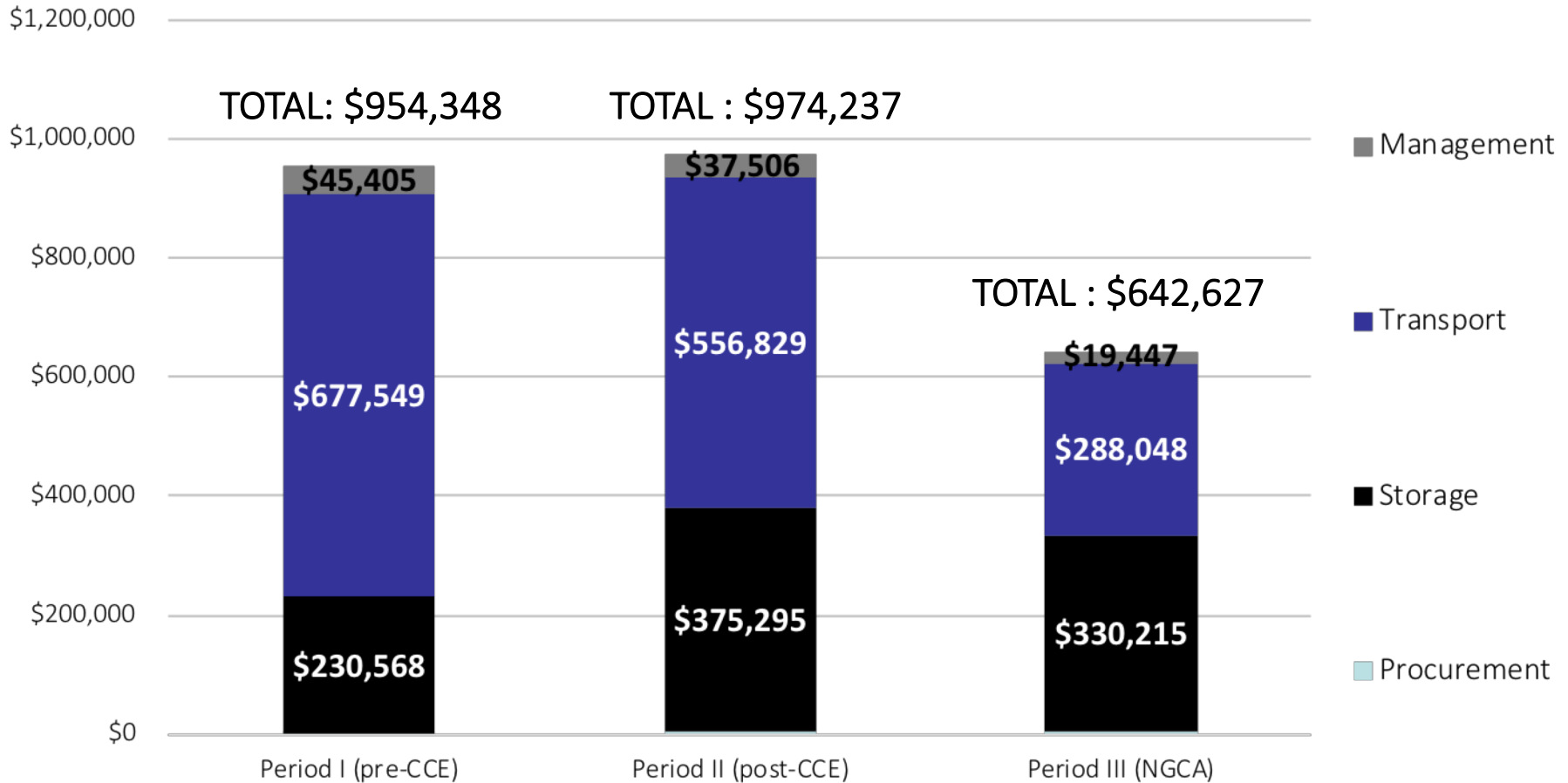
NGCA has Resulted in Supply Chain Cost Reductions



*Note: Due to challenges with data collection of provincial management costs during Period II, we adjusted costs in Period I and II to be consistent with the data captured for Period III.

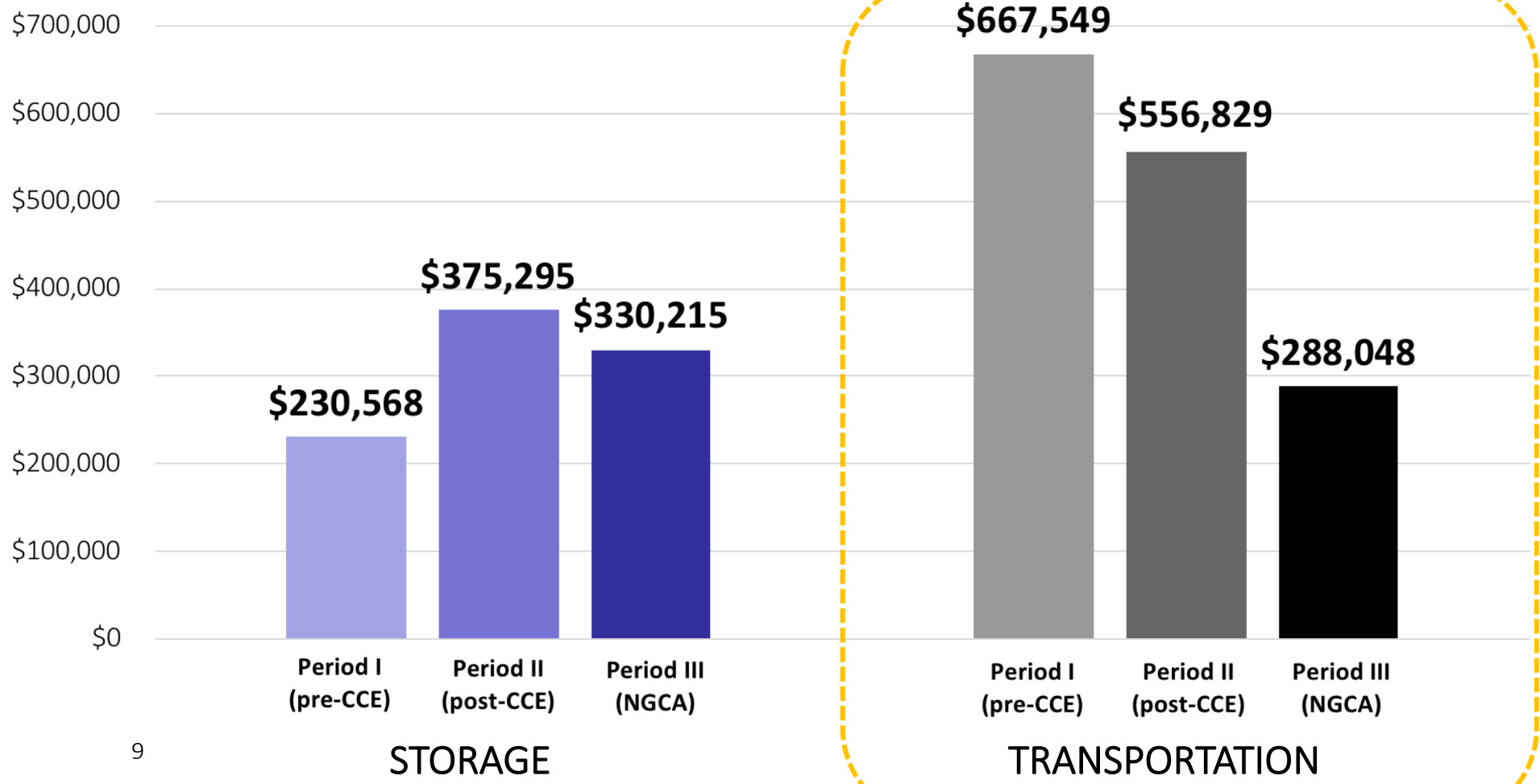


Total Provincial Cost Estimate by Function





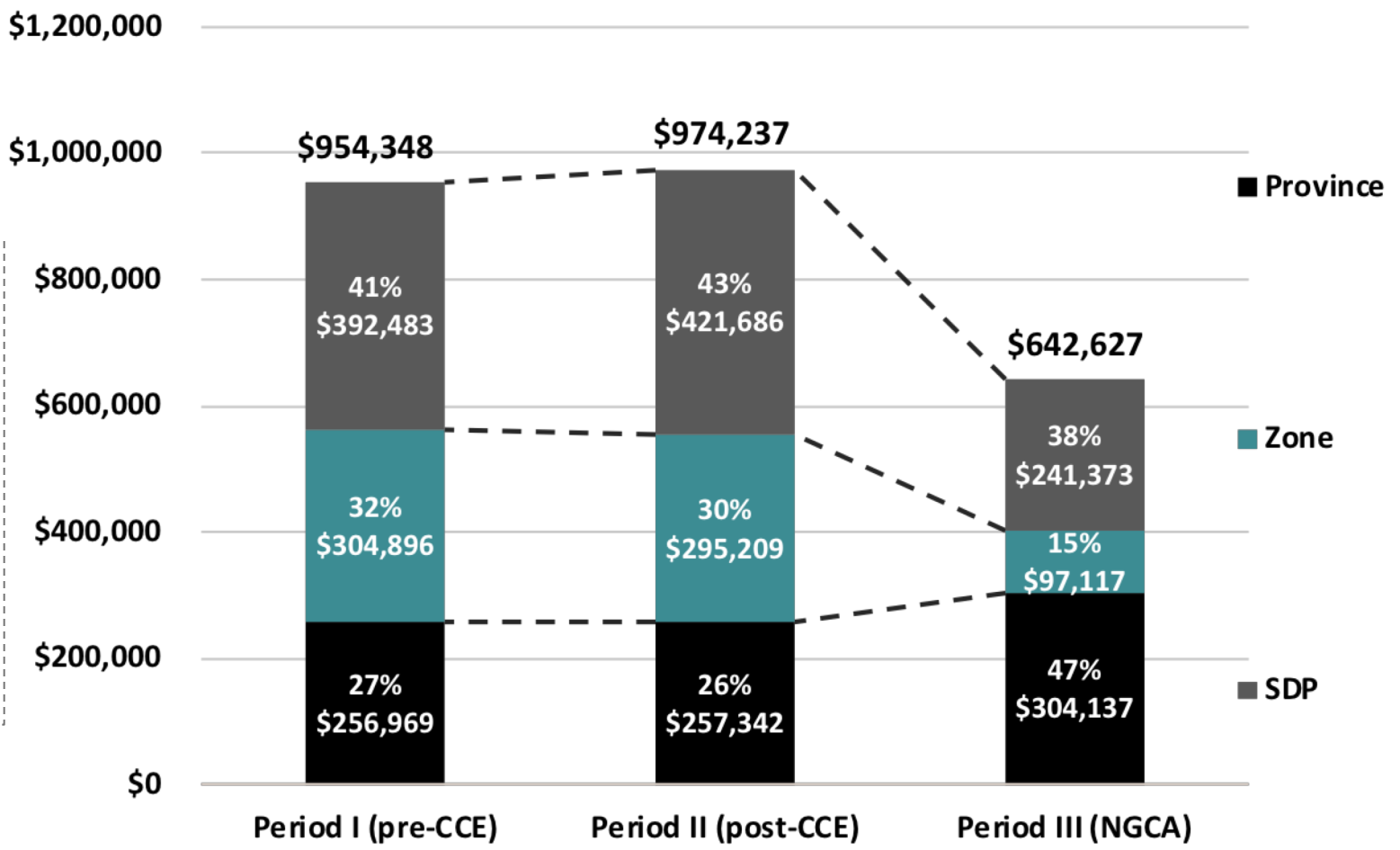
Reduction in Transport Costs Through Direct Delivery = Decrease in Total Provincial Costs





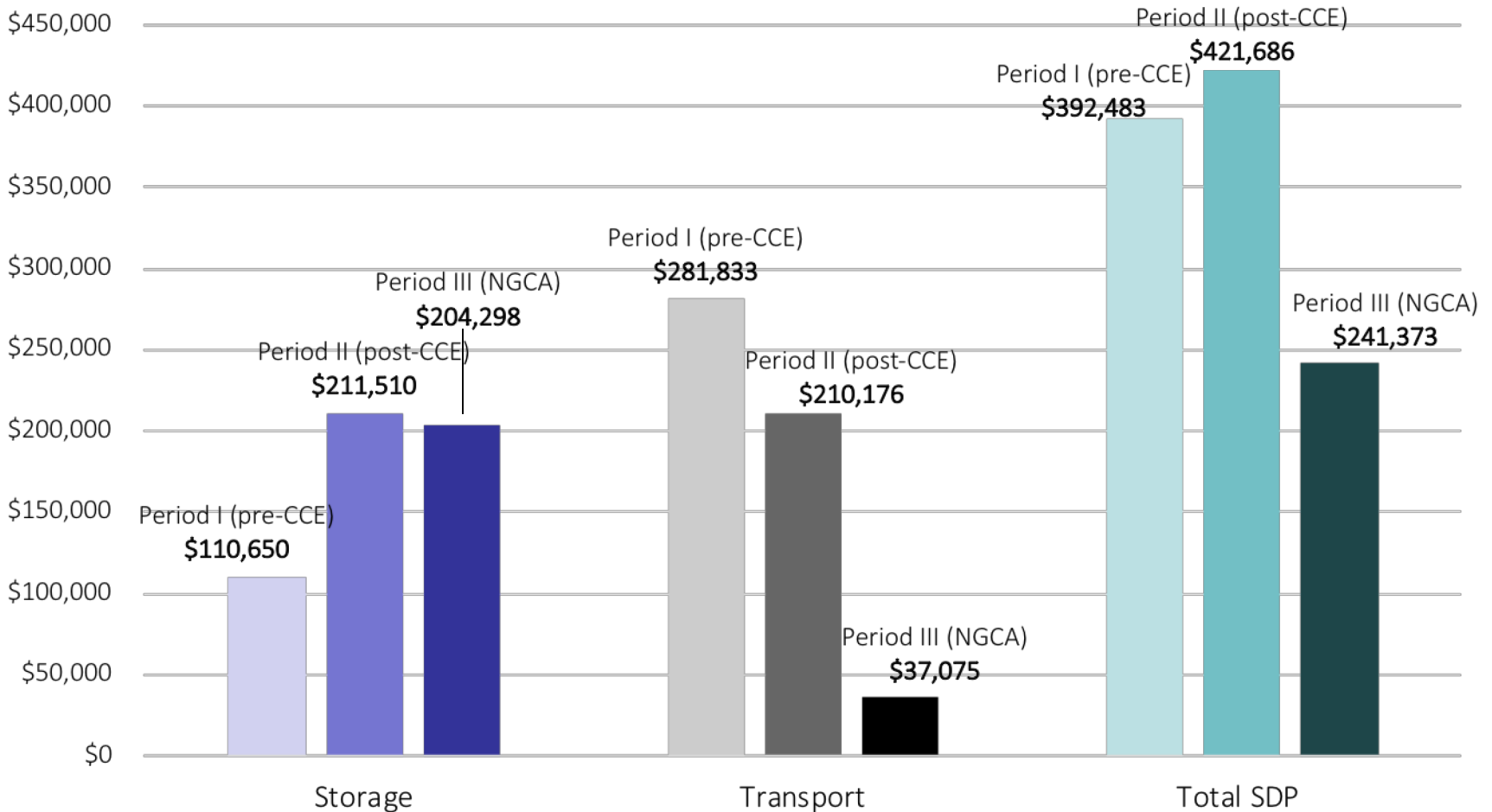
NGCA Results in a Redistribution of Costs from SDP and Zone to Provincial Level

NGCA consolidates costs and management functions to higher levels, reduces overall costs.



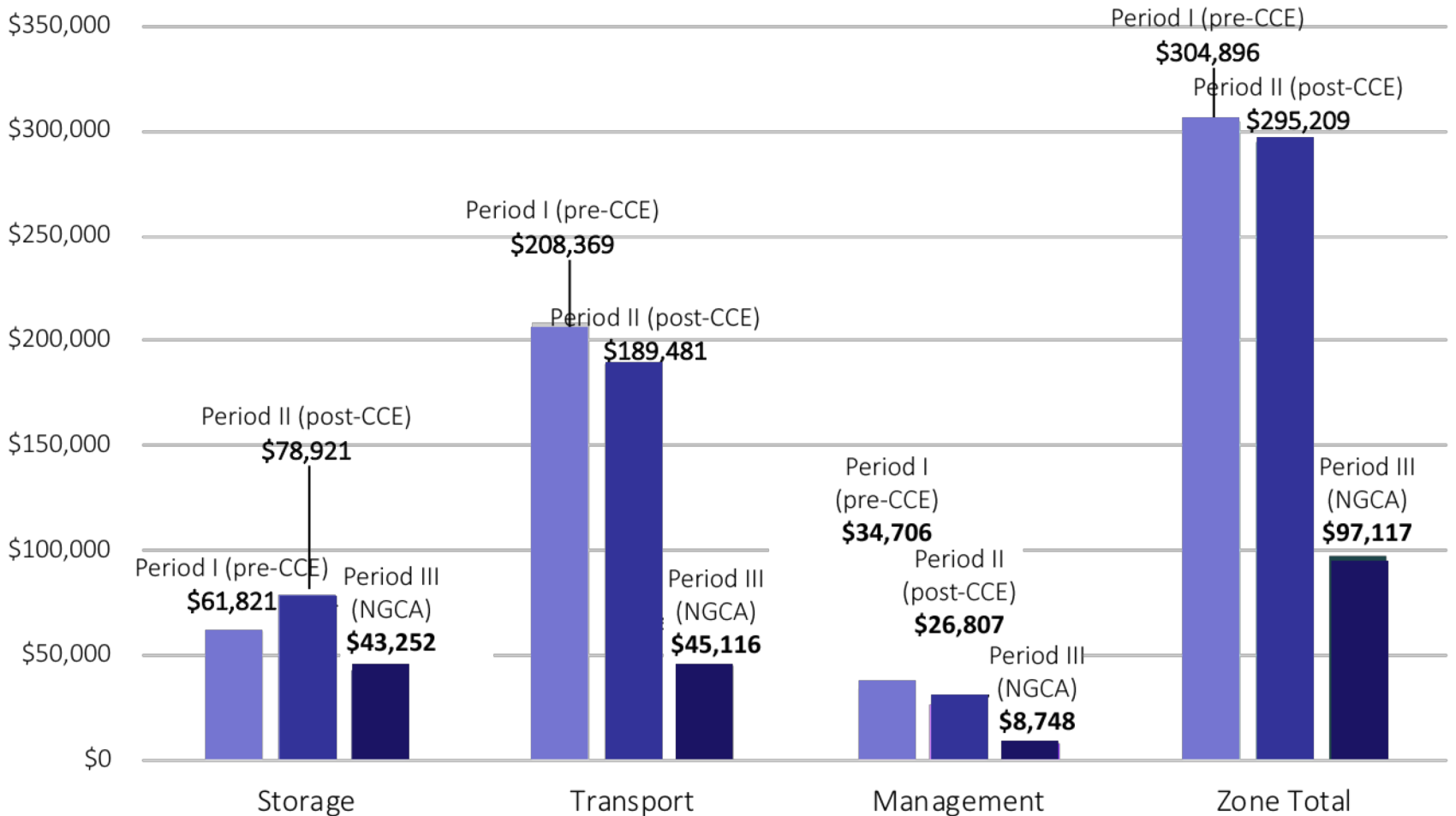


SDP Costs : Total and by Supply Chain Function



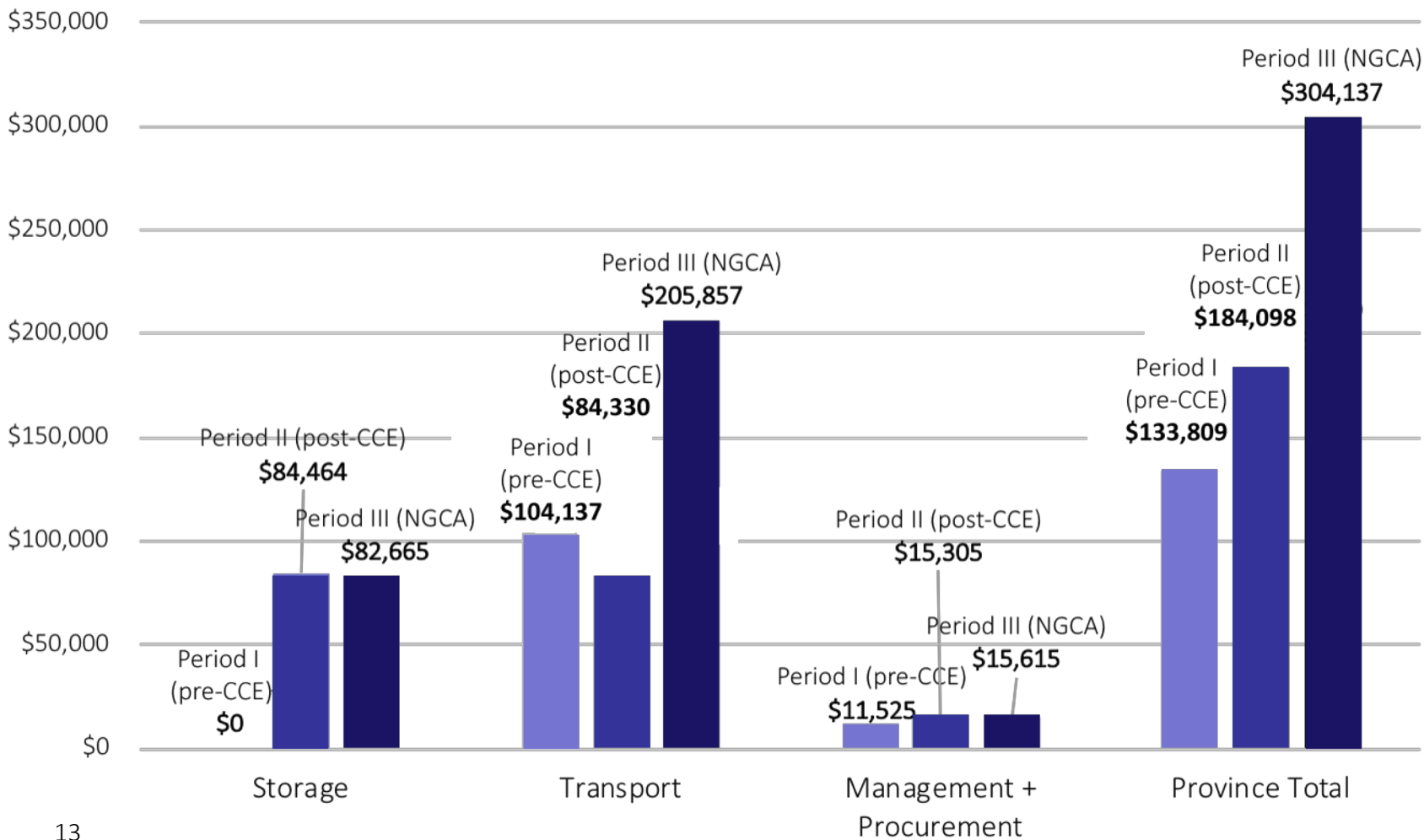


Zonal Costs: Total and by Supply Chain Function





Provincial Costs: Total and by Supply Chain Function



Conclusions

SUMMARY

- Supply chain costs have decreased for SDP and Zones because of NGCA. **Estimated decrease for SDP and Zones combined is \$378,405.**
 - 84% of this **\$378,405** decrease can be attributed to **transportation costs**.
 - There was also a **reduction in storage costs for Zones**, due to direct delivery to SDPs and reduced Zonal effort managing inventory
- **Provincial transport costs increased** by 144% due to the added responsibility of direct deliveries.
 - Transportation cost reductions at the SDP and Zone levels **can sufficiently cover the increase** in transportation costs at the Provincial level

KEY FINDINGS

- Total cost estimate of expanding NGCA to all 18 zones in Equateur Province is **\$642,627/year**
 - * Does not include costs of expansion, periodic evaluation or governance strengthening.
- **Cost-efficiency increased** as a result of: **A)** decrease in costs across SDPs and Zones; & **B)** an increase in the volume of vaccines moving through the supply chain during NCGA.



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