

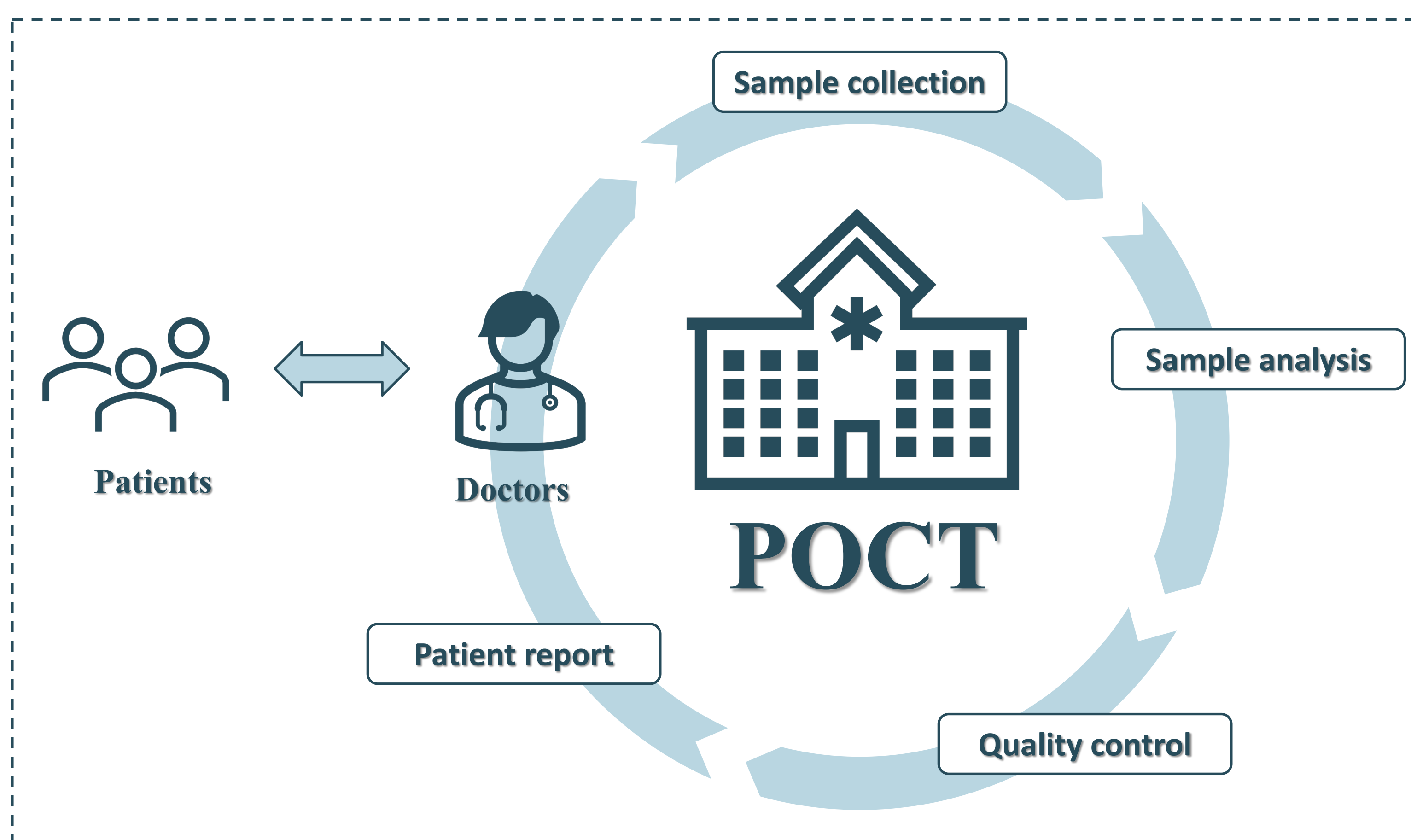
# The Budget Impact of Introducing a Centralized Point of Care Testing Management System in a Hospital in China

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## BACKGROUND

- Digital healthcare integrates digital, intelligent, and internet technologies to enhance efficiency, quality, and accessibility of healthcare services.
- POCT (point-of-care testing) provides rapid, portable, and easy-to-use diagnostics for various conditions, impacting patient care and monitoring in the Endocrine Department, Chest Pain Center, Intensive Care Units, etc.
- The economic impact of a centralized management system that manages all POCT analyzers in China remains unclear.



## OBJECTIVE

- To estimate the economic impact of introducing a centralized management system that manages all POCT analyzers in a hospital from a hospital's perspective and a patient's perspective.

## METHODS

- A budget impact model was developed to evaluate the difference in total healthcare costs per year and per patient per year (PPPY) costs before and after introducing a centralized POCT management system to manage all analyzers and patient records for a hypothetical of 100,000 patients in a hospital in China.
- The model considered:
  - Hospital operational costs
    - labor costs for testing
    - analyzer quality control (QC)
    - supplies costs
    - POCT maintenance
    - depreciation costs
  - Patient costs
    - testing costs
    - treatment costs
    - hospitalization costs
- All costs were estimated in 2024 Chinese Yuan.
- Model inputs were obtained from published sources or expert opinions.

## RESULTS

- In the base case, the inclusion of the centralized POCT management system decreased the hospital budget by ¥0.96 million and ¥92 PPPY from a patient's perspective.
- The budget decrease was mainly due to shorter hands-on time for each test and QC time for POCT analyzers, lower supply costs, and lower depreciation costs due to underutilized POCT analyzers, and fewer maintenance efforts.

Figure 1. Budget Impact Results – Total Healthcare Costs per Year

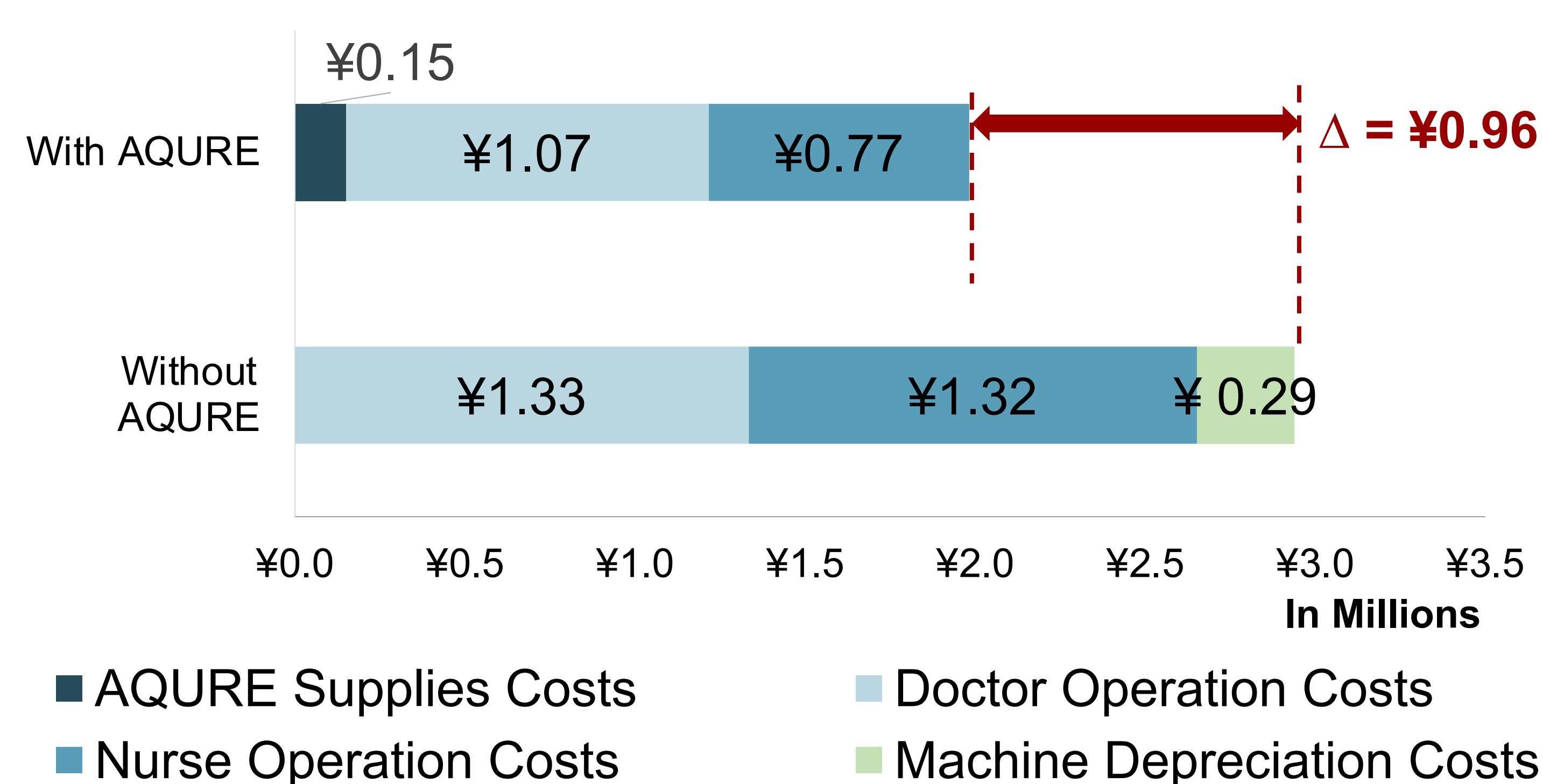
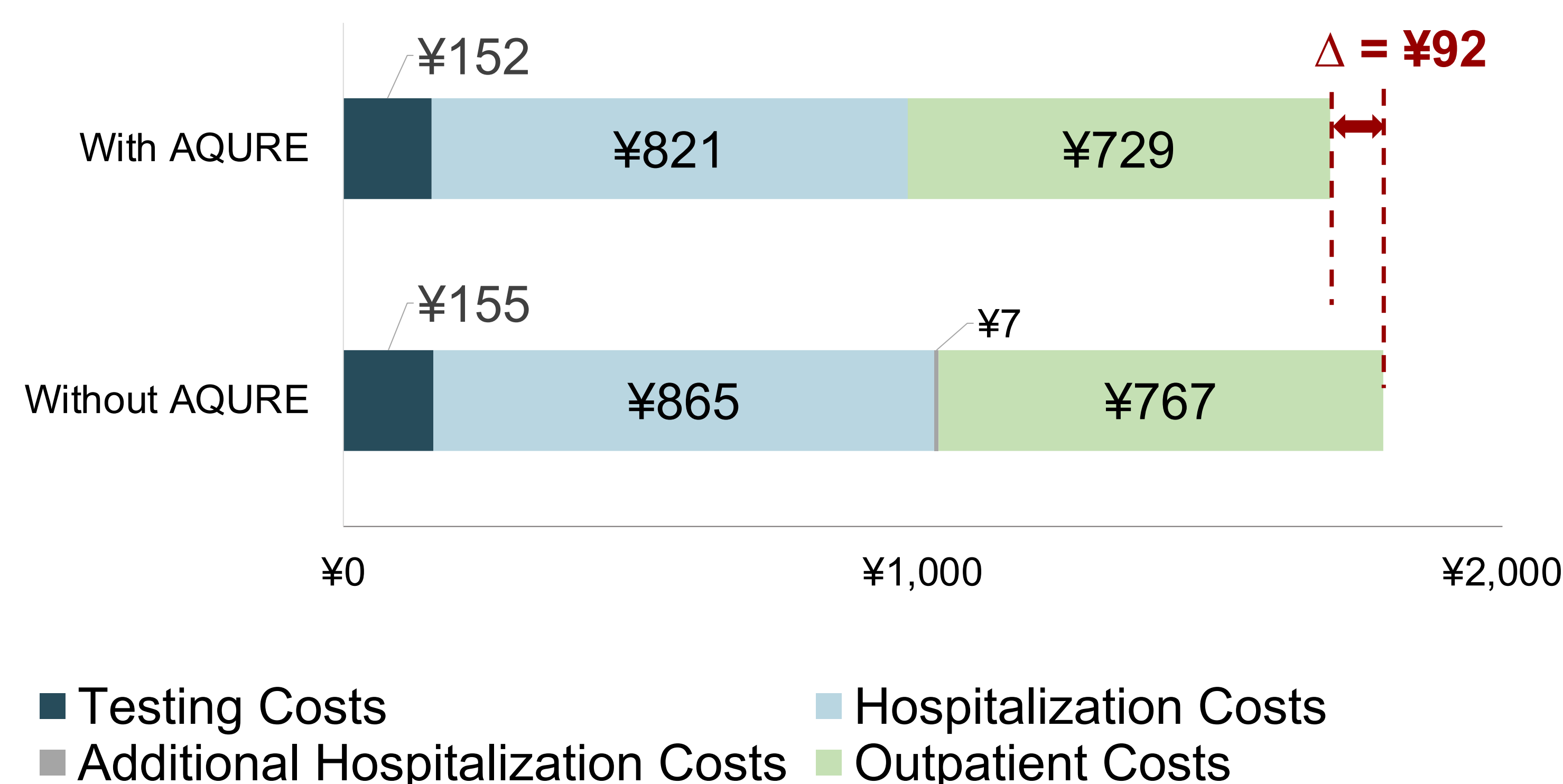


Figure 2. Budget Impact Results – per Patient per Year (PPPY) Costs



## CONCLUSIONS

- The inclusion of a centralized management system that manages all POCT analyzers offers a cost-efficient approach with a decrease in the healthcare budget from both a hospital's perspective and a patient's perspective in China.

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