HSD70

Mapping Anatomic Pathology Laboratories of Public Hospitals in Greece: Units, Infrastructure, Personnel and Workload Estimation

Athanassios Vozikis, Platon Peristeris, Foteini Tsotra, Christina Magkou, Anastasios Stofas, Dimitrios Bouklas, Helen P Kourea
Laboratory of Health Economics & Management, Economics Dept., University of Piraeus, Piraeus, Greece

Background

Anatomic Pathology Laboratories are facing increasing challenges related to workload, rising service demand, and strict diagnostic turnaround times. Unlike other specialties, pathology workload depends entirely on requests from clinicians and staffing often fails to match workload demands. Moreover, increases in surgical activity do not translate linearly to pathology workload, creating further strain. Limited staffing and outdated equipment remain key barriers to timely diagnosis and optimal patient outcomes. [1-3]

Objectives

In this study, we aim to evaluate pathology laboratory workload and resources in Greece and establish a basis for a national monitoring system.

Methods

A structured questionnaire based on published assessment frameworks[1,2] was used in a cross-sectional survey conducted in April 2025 across 52 pathology laboratories in public hospitals from all seven Regional Health Authorities (RHA) in Greece. Data were collected on staffing, workload, and equipment availability and condition.

Results

Staffing in relation to annual workload : Figure 1 illustrates substantial regional disparities in staffing levels, with the 1st RHA concentrating most personnel, while others—especially the 5th and 7th RHAs—operate with critically low numbers of pathologists, technicians, and secretarial staff.

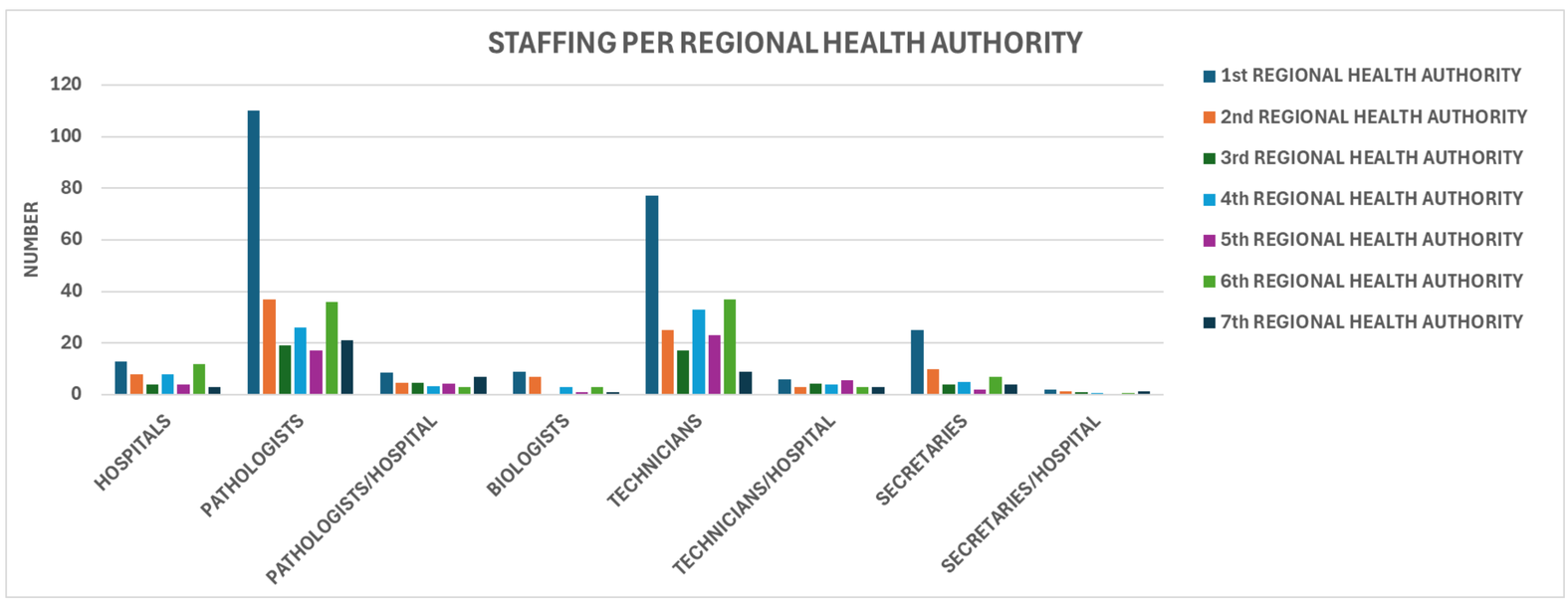

Figure 1: Staffing per regional health authority (RHA)

Pathology workload (Figure 2): Workload varied across Regional Health Authorities, with notable differences in accession numbers and slides per pathologist and technician (Figure 2).

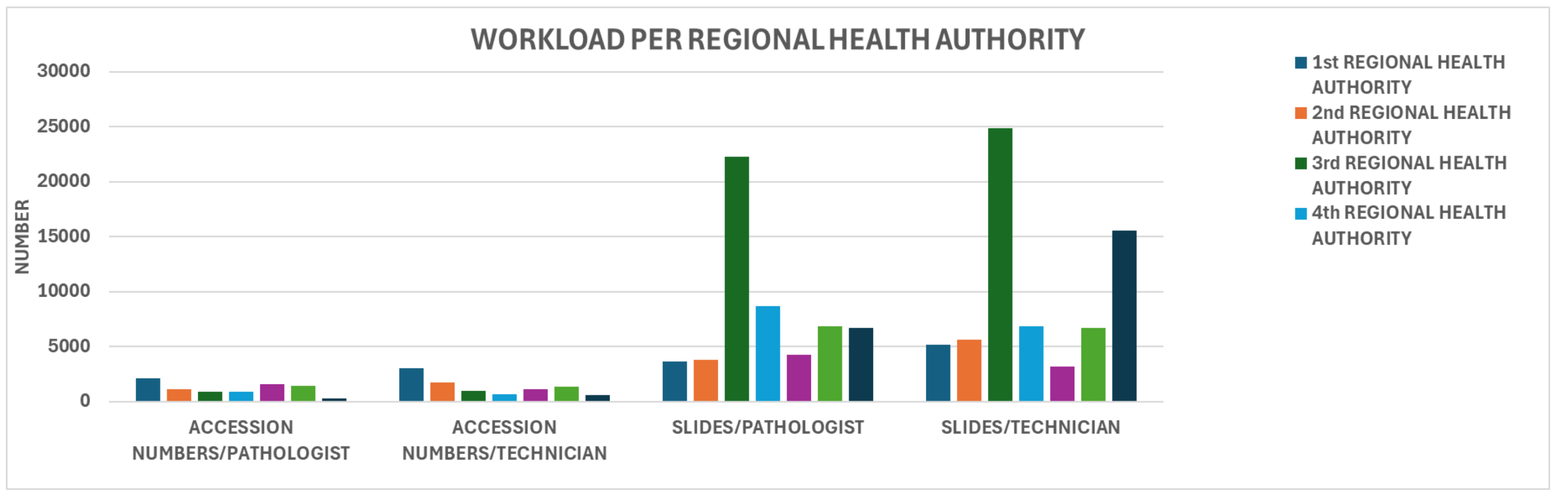

Figure 2: Workload per regional health authority (RHA)

Table 1 presents information about the **equipment status.**

Category	Key findings
Laboratory Systems	▪ Most Lab Information Systems >10 years old
Grossing	▪ Digital scales mostly >10 years (only 3 RHAs with ≥1/hospital) ▪ 4/7 RHAs lack digital cassette printers ▪ Digital imaging systems are almost absent ▪ Air filtration is limited (11 nationwide, unevenly distributed) ▪ Freezers are insufficient and unevenly allocated
Cryo Section	▪ ≤1 cryostat per hospital in many RHAs ▪ Cryoembedding is absent in 3rd & 5th Regions
Tissue Processing	▪ Modern processors: <1/hospital, except 1st RHA. ▪ Formalin storage chamber: only in 1st RHA.
Histology Lab	▪ Digital slide imaging: nearly absent (2 in 1st, 1 in 4th RHA). ▪ Slide printers are almost absent. ▪ Automated stainers/cover slippers: <1/hospital; both present only in 1st RHA
Immunohistochemistry	▪ Automated immunostainers are very limited (<1/hospital), except in 1st RHA.
Diagnosis	▪ Most microscopes >10 years old. ▪ Few screen–camera systems for case review.

Table 1: Equipment status

Conclusion

Staffing in Anatomic Pathology Laboratories is limited and unevenly distributed across regions, leading to large workload imbalances. Secretarial and biologist support is minimal, and much of the equipment is outdated. These deficiencies delay diagnosis and reduce efficiency, highlighting the need for workforce reinforcement and modernization.

References

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Contact information: Platon Peristeris, Laboratory of Health Economics & Management, University of Piraeus, 80 Karaoli & Dimitriou Str., 185 34, Piraeus, Greece; e-mail: platon.peristeris@gmail.com, Tel.: +30 6946504287