

The Urgent Need for Full-Field Cell Morphology and the All-Digital Workflow

A growing crisis in the lab



Clinical laboratories are an essential part of the healthcare and medical sector⁶, but they are stretched to the **breaking point**.



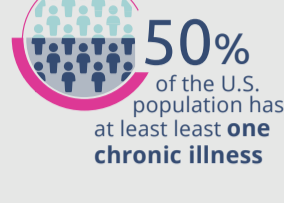
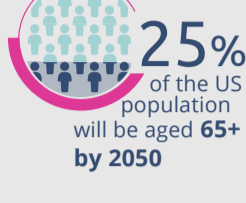
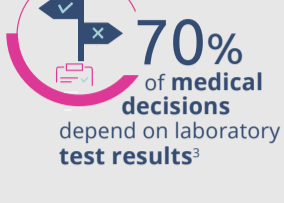
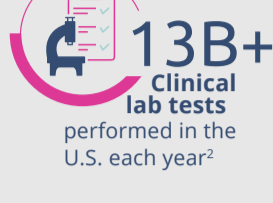
Labs face serious **staff shortages** and **tight budgets**, yet many routine tasks such as blood cell differentials are still done **manually**, which is **time-consuming** and makes remote collaboration and information sharing slow and cumbersome.



Manual reviews are **labor-intensive** and require trained personnel on-site. They are also **highly subjective**, resulting in inter- and intra-user variability that can lead to **inaccurate diagnoses**.



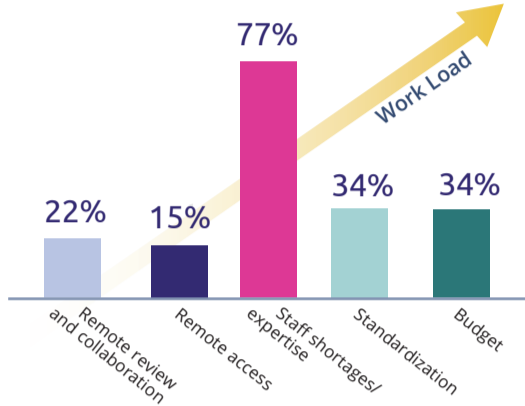
This need for more **diagnostic capacity** and **qualified personnel** is only increasing.



About The Data

Data was gathered from a survey of more than 700 lab professionals and clinicians who attended Scopio's sponsored webinars.

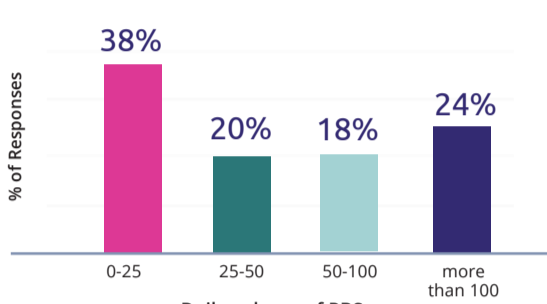
What are the top challenges?



Labs report **ever-increasing workloads**, a critical **shortage of lab personnel**, **budget constraints**, and the need for improved efficiency and accuracy as key problems.

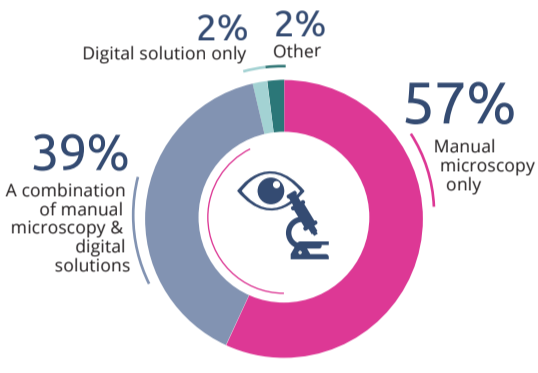
A closer look: Peripheral blood smears

The daily volume of peripheral blood smears prepared and reviewed



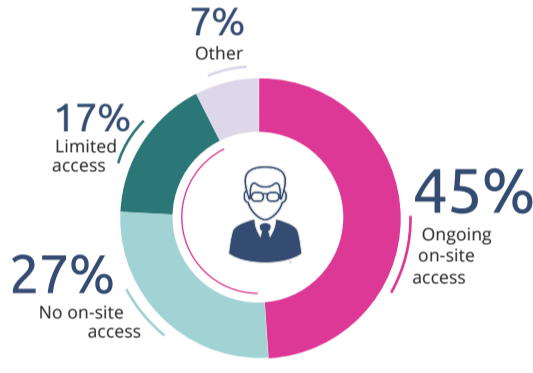
The peripheral blood smear (PBS) is one of the most commonly ordered lab tests¹ and constitutes a **significant proportion of the lab expert's workload**.² **Yet most are still conducted manually.**

Manual microscopy still dominates



A stunning **57%** of lab professionals **still rely on a purely manual review of PBS**, which involves an expert looking at a sample under a microscope, **manually classifying and counting cells**, and visually hunting for abnormalities that could mean cancer, infections, inflammation, or other diseases.

A gap in remote access



In addition to over-reliance on manual processes, more than half of laboratories have either **limited or no on-site access** to expert consultation for PBS reviews, which can **significantly delay diagnosis**.

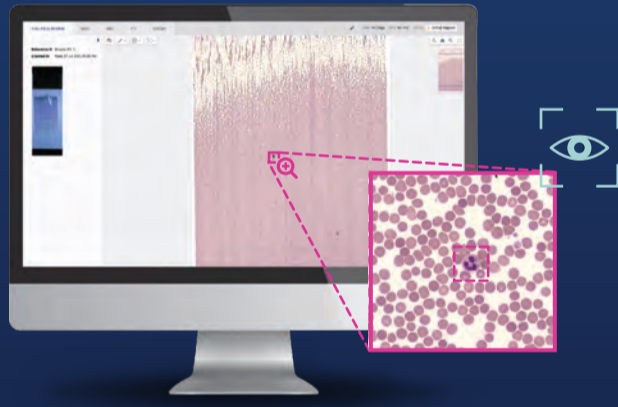
It's time for a digital revolution: Full-Field Cell Morphology™

Digitization has the potential to improve both the quality and efficiency of PBS reviews,⁸ provide much-needed consistency and standardization in lab processes,⁵ and create economic benefits for laboratories.³

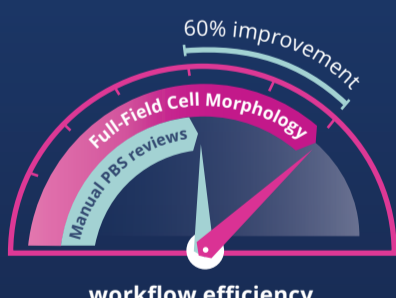
What is Full-Field Cell Morphology™?

Scopio Labs' Full-Field Digital Cell Morphology platforms offer a **fully digital and remote-capable option** for PBS evaluation, interpretation, and review.

By digitizing the entire PBS process, Full-Field Cell Morphology **fundamentally improves laboratory practice, efficiency, remote collaboration** through the secure hospital network, and standardization.^{3, 8}



60% Faster PBS



workflow efficiency

Full-Field Cell Morphology provides a **60% improvement** in workflow efficiency vs. manual PBS reviews.⁸

The Full-Field Difference



Full-field capability enables experts to capture both the **general slide context and zoom in** on the smallest details of a single cell, which is **critical for confident laboratory decision-making**.

100X Resolution



The Full-Field Cell Morphology platform is **powered by 100X high resolution digital imaging** giving lab teams and remote experts a view of all clinically relevant areas of the blood smear in detail. With no need to ever revert to a manual microscope, **there's no longer a tradeoff between resolution and field of view (FOV)**.

100% Remote Access



The ability to view and interpret cases remotely and without manual microscopy **streamlines laboratory workflows and supports real-time collaboration**. It enables consulting experts and all team members to participate from anywhere in real-time over the secure hospital network, **accelerating diagnosis and treatment and improving the patient experience**.

About Scopio Labs

Leveraging Full-Field Cell Morphology™ and major advances in AI, Scopio is proud to be **leading the way in digital cell morphology**, going beyond the limitations of the human eye and manual microscopy.

Scopio Labs is developing **revolutionary approaches** to first-line laboratory testing, propelling the field of diagnostics into a new era and fueling the digital transformation of hematology laboratories worldwide.



Disclaimer: Scopio's Full-Field Peripheral Blood Smear™ Application is FDA-cleared and CE-marked on both the X100 and X100HT. Not available in all markets. Please contact your local sales rep for more information about availability.

References

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