Broad Respiratory Panels Find Clinical Value, but Not Routine Volume

by EOS IMPLICIUM

16/04/2026

Broad multiplex PCR panels detect multiple pathogens from a single sample. But outpatient respiratory care still favors single-pathogen tests because payers usually reimburse only when results affect clinical decisions. Larger panels rarely influence treatment, and so broader detection alone does not guarantee higher test volumes or steadier revenue for test producers.

Reimbursement limits keep broad respiratory panels out of routine use

Reimbursement policies play a major role in determining multiplex test use volumes.

Medicare Local Coverage Determinations (LCDs) typically reimburse smaller respiratory panels covering up to five clinically relevant pathogens. Panels with more targets are usually limited to high-risk or complex cases, though thresholds vary by payer, and the evidence base is still evolving. Payers reimburse broad syndromic panels only in limited situations, such as for immunocompromised patients or when initial tests fail to identify the cause of infection.

In contrast, single-pathogen tests are inexpensive, fast, and easy to fit into routine clinic workflows. That is why they continue to capture most outpatient demand. This leaves makers of broad panels with a much smaller paid market, with revenue tied to a narrow set of less frequent uses. Because clinicians use these tests less often in routine care, clinics and physician offices also have less reason to bring the platforms into everyday workflows.

Although multiplex panels generate higher revenue per test, payers usually restrict reimbursement to specific clinical situations. As a result, the lower number of billable tests often leads to reduced overall sales compared with high-volume, routinely reimbursed targeted assays.

Payer variation makes broad panels harder to scale

Commercial payers are also reinforcing this trend. Payer policies show that coverage for multiplex respiratory panels is both tightly restricted and inconsistent across regions. For example, Healthy Blue/Anthem reimburses panels with five or fewer targets for high-risk patients in outpatient settings. In contrast, neither payer considers panels with six or more targets medically necessary.

UnitedHealthcare policies follow a similar approach. However, they are not consistent across all plans. In the Kansas Community Plan, outpatient panels with six or more targets are typically considered not medically necessary because evidence of clinical benefit is limited. Smaller panels covering three to five pathogens may be reimbursed when results are likely to change treatment decisions.

Overall, these payer rules favor targeted testing that clearly influences clinical management and leave broad multiplex panels under heavier review. For diagnostic developers, that means test volume grows more slowly, and demand is harder to predict. It also becomes tougher to expand broad panels into routine outpatient use.

Outpatient demand favors targeted tests over broad respiratory panels

The distribution of testing across care settings is another important factor shaping multiplex test volumes. Hospitals use broad multiplex panels mostly in emergency departments and inpatient units, where patients tend to have more severe or complicated illnesses.

However, intermittent acute episodes, not routine screening, drive other hospital-based testing. That limits how often providers perform these tests. By contrast, outpatient settings generate steadier and more recurring demand for simpler panels, especially during respiratory virus season.

Clinics, urgent care centers, and physician offices account for much of respiratory testing. This gives targeted tests a clear advantage. Because these tests work well in clinics and urgent care sites, companies can place

instruments in more locations and build a broad, steady revenue base from routine testing.

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Broad multiplex panels, by contrast, depend on a much smaller set of hospitals and reference labs, which concentrates revenue in fewer accounts. This concentration gives buyers more leverage in price negotiations and increases exposure to volume discounts and bundled contracts. Revenue becomes vulnerable to the loss or renewal of a small number of institutional accounts.

In contrast, targeted tests benefit from more distributed outpatient demand. That allows manufacturers to keep pricing and volume planning more stable across many smaller customers. This remains true even though the average price per test is lower than for broad panels. As a result, multiplex panels face greater margin pressure and revenue variability, whereas targeted testing supports more stable, predictable revenue.

Reimbursement policies are also strengthening this divide. In many cases, payers favor stepwise testing, using targeted assays first and reserving broader panels for cases that remain unresolved. This stepwise approach pushes broad panels out of the first-line testing slot, where repeat volume is highest. It leaves them competing mainly for a smaller pool of unresolved or high-acuity cases.

Broad panels provide critical value for severely ill and immunocompromised patients. However, those cases represent a relatively small share of total respiratory testing volume. On their own, they are not enough to consistently support high and stable testing volumes.

Market trade-offs push developers toward narrower panels

Broad panels are hard to justify in routine outpatient respiratory care because many additional targets offer limited clinical value. Several detected pathogens lack specific treatments, and low-prevalence ones contribute little benefit.

There is also limited evidence that broader detection improves patient outcomes. This has commercial consequences. Each extra target adds

complexity, cost, and payer scrutiny without necessarily increasing ordering. That makes broad panels a tougher sell than narrower tests, which fit routine care more easily and are more likely to bring steady repeat volume.

Many manufacturers are responding by narrowing respiratory test menus. Some are focusing on combinations that are easier to reimburse and use in decentralized care settings. Recent point-of-care (POC) solutions such as Roche's Cobas Liat SARS-CoV-2/Influenza A/B assay and Abbott's ID NOW platform with separate COVID-19 and Influenza A & B 2 tests reflect this shift.

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Payer rules are helping drive this shift. Companies now have stronger reasons to build targeted combinations that fit routine care more easily than broad panels. This strategy can help expand platform use in physician offices, urgent care centers, and retail settings. But it comes with a trade-off. Smaller panels usually bring lower per-test pricing and can pull demand away from a company's own higher-value broad panels.

With these trends, success will depend less on the breadth of the test menu and more on factors such as platform versatility and CLIA-waived status. These aspects make it easier to place the systems in decentralized care settings and use them more often.

At the same time, as more companies move toward similar small-panel offerings, the market may become increasingly crowded. This is likely to intensify price competition and further compress margins. It may also shift differentiation toward features such as workflow integration, turnaround time, and ease of use rather than menu breadth alone.

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Broad multiplex respiratory testing is unlikely to disappear. But future growth will depend on how well manufacturers adapt to outpatient care. This shift may improve volume but will likely put pressure on margins by reducing per-test revenue.

The margin pressure may also accelerate consolidation among test developers. To offset lower margins, manufacturers may increasingly rely on instrument leasing, service contracts, connectivity tools, data offerings, or cross-selling additional assays rather than depending on panel breadth alone.

Expanding into outpatient settings will also require more than just smaller panels. Companies may need new sales channels, CLIA-waived approvals, and simpler instruments that non-laboratory staff can use. They will also require stronger clinical evidence to satisfy increasingly tough payer reviews.

Market dynamics favor companies that already have CLIA-waived POC platforms in decentralized settings. Examples include Abbott's ID NOW and Cepheid's GeneXpert, which clinics, urgent care centers, and other near-patient care settings already use. Because companies have already placed these systems in routine care sites and are simple enough for non-laboratory staff to use, they are better positioned to roll out narrower respiratory panels quickly. In contrast, companies that do not adapt may remain confined to hospital-based niches with less scalable, more contract-driven revenue.

Broad syndromic panels will continue to play an important role in higher-acuity settings, particularly for immunocompromised, transplant, and other complex patients. Ongoing clinical studies and newer regulatory moves could widen their use over time. They may give payers and providers more confidence in when broad panels add enough value to justify broader adoption. But the near-term growth is still more likely to come from smaller, faster multiplex formats, where success will depend on balancing clinical value, reimbursement, and scalability.

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