

PRACTITIONER ARTICLE

Performance-Based Financing in Emergencies: A Case for Responsive Alternatives

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Performance-based financing is the dominant donor-supported health worker incentive model in LMICs. During normal operating conditions, PBF can improve service delivery. During health emergencies, it generates four documented perverse incentive categories: task substitution, data gaming, intrinsic motivation crowding, and indicator rigidity that actively undermine emergency response capacity. This article lays out the mechanism for each perverse effect, reviews three alternative incentive designs with documented effectiveness in FCAS and crisis settings (Liberia's crisis-adaptive PBF redesign, Rwanda's imihigo accountability stacking model, and Honduras's NGO performance contracting model), and closes with a practical decision tree to help program designers select the appropriate design for their context.

THE PROBLEM WITH PBF DURING EMERGENCIES

Performance-based financing is not wrong. Applied in stable settings with functioning data systems and predictable service delivery demand, PBF creates measurable improvements in facility-level output. The World Bank's Results-Based Financing for Health program (World Bank HRITF, 2022) has documented facility performance improvements across multiple LMIC deployments. De Walque and Kandpal (2022, *BMJ Global Health*), the most comprehensive review of the results-based financing evidence to date finds genuine effects on key health indicators in a range of country contexts. The Liberia post-Ebola PBF model and Rwanda's imihigo-PBF hybrid demonstrate that PBF redesigned with crisis conditions in mind can sustain performance through subsequent health shocks.

The problem is PBF as typically implemented, a static indicator set, a fixed payment schedule, and a contract design that was written for normal operating conditions and never updated to reflect emergency conditions. During health emergencies, this typical PBF design does not simply stop working. It actively generates incentives that make the emergency worse.

The following four perverse incentive categories are documented in the peer-reviewed and grey literature. They are not edge cases or theoretical risks. They are the standard operating consequences of applying a routine-care incentive design to a crisis environment.

THE FOUR DOCUMENTED PERVERSE INCENTIVE CATEGORIES

1. Task Substitution

PBF contracts tie payment to a pre-defined indicator set typically the indicators that mattered before the emergency. When an emergency arrives, the resources and attention required to respond effectively must be redirected from routine service delivery to emergency functions. Under a standard PBF contract, that redirection is penalized: the provider who closes the antenatal clinic to operate a COVID-19 triage point loses payment on the antenatal indicator. The rational response, from the provider's perspective, is to maintain the indicator-rewarded service at the expense of the emergency function. Task substitution means the emergency response is deprioritized because the incentive system was never designed to reward it.

Evidence: Documented in the PBF literature across multiple LMIC deployments; mechanism confirmed by the Liberia Ebola post-mortem, which led to the redesign that incorporated surge-response clauses (Liberia post-Ebola PBF model; Gatome-Munyua et al., *BMJ Global Health*, 2025)

2. Data Gaming

Providers facing payment pressure inflate indicator counts. This is not a theoretical prediction, it is an empirically documented behavior across multiple PBF deployments. The mechanism is straightforward: when payment depends on reported numbers, and reporting verification is imperfect or disrupted by the emergency itself, providers face a direct financial incentive to inflate. During emergencies, verification capacity is typically the first institutional function to collapse, supervisors are redeployed, data managers are absorbed into response functions, and audit cycles are suspended. This removes the primary deterrent against gaming precisely when payment pressure peaks.

Evidence: Documented across DRC, Tanzania, and Zimbabwe PBF evaluations (cited in Structuring Resilience: A Blueprint for Adaptive Health Governance, Section 5, Pillar V)

3. Intrinsic Motivation Crowding

External financial incentives crowd out professional motivation. The psychologist's insight here is specific: when payment is the primary driver of behavior, removing or disrupting the payment signal removes the primary motivation to act. Health workers in FCAS settings who work under extreme conditions, physical risk, supply shortages, family separation do so primarily because of professional identity, social obligation, and community connection. A PBF system that converts their professional motivation into a financial transaction makes the professional motivation partially redundant. When payment is disrupted by an emergency (payment cycles delayed, government cash flow interrupted, bank infrastructure non-functional), the financial signal disappears and with it, the motivation it displaced.

Evidence: Safety guarantees and professional recognition are documented as 'the most predictive health worker retention factors in conflict settings' (Expert Analysis section, Structuring Resilience, April 2026, drawing on Scott et al., Health Research Policy and Systems, 2021)

4. Indicator Rigidity

PBF indicator sets cannot be rapidly reconfigured to reward crisis-response behaviors. Standard PBF contracts are designed for annual or multi-year cycles. The indicators are negotiated, costed, and embedded in procurement and financial management systems. When an emergency creates a new set of priority behaviors, COVID-19 screening, Ebola contact tracing, cholera case management, the PBF contract has no mechanism to reward them. The governance process required to renegotiate indicators (ministry approval, donor sign-off, contract amendment, system reconfiguration) typically takes months. Effective emergency response requires days. The incentive architecture operates at the wrong speed.

Evidence: Operational template for resolution: the Liberia post-Ebola PBF redesign incorporated predetermined surge-response clauses that activate automatically upon declared emergency conditions, removing the need for renegotiation (Liberia post-Ebola PBF model; Structuring Resilience, Section 5, Pillar V)

THREE ALTERNATIVE DESIGNS WITH DOCUMENTED EFFECTIVENESS

The critique above is not a critique of PBF as a category. It is a critique of PBF as typically implemented and of the failure to design for the emergency conditions that are predictable in FCAS settings. Three alternative designs have documented effectiveness in addressing at least one of the four perverse incentive categories.

| ALTERNATIVE DESIGN | MECHANISM | EVIDENCE BASE | ENABLING CONDITIONS | CONTEXTS WHERE IT DOES NOT TRANSFER |
|-----------------------------|--|--|---|---|
| Liberia Crisis-Adaptive PBF | PBF contracts redesigned to include: (a) community-based and prevention-oriented indicators alongside facility-output indicators; (b) predetermined surge- | Liberia post-Ebola PBF model: sustained facility-level performance improvements through subsequent health shocks | Existing PBF program with functioning contract management infrastructure. Willingness of donor and ministry to negotiate surge- | Settings with no pre-existing PBF infrastructure, the crisis-adaptive redesign is a modification of an existing system, |

| ALTERNATIVE DESIGN | MECHANISM | EVIDENCE BASE | ENABLING CONDITIONS | CONTEXTS WHERE IT DOES NOT TRANSFER |
|--|--|---|---|---|
| | response clauses that activate automatically upon declared emergency conditions, releasing a modified indicator set and emergency payment schedule without requiring contract renegotiation | following redesign. Identified as operational template by the report's Conclusions section (National Level recommendations). Gatome-Munyua et al. (BMJ Global Health, 2025): design considerations for PBF in health system goals | response clauses at contract design stage before the emergency. Data verification capacity sufficient to audit emergency indicator performance | not a design from scratch. Settings where ministry procurement timelines prevent the upfront contract design investment |
| Rwanda Imihigo Accountability Stacking | Political performance contracts between district mayors and the central government embedding health service delivery targets in mayoral accountability. Combined with PBF cooperative structures for CHWs and facility-level payment-for-performance. The accountability cascade operates at three levels: president–mayor, mayor–DHMT, DHMT–facility. Service continuity during emergencies is a political obligation at mayoral level, not a financial transaction at facility level | Rwanda COVID-19: service disruptions of 4-5% across key MCH indicators against a WHO global pulse survey average of 50%, a tenfold differential in a country with \$803 GDP per capita in 2020 (Amberbir et al., Annals of Global Health, 2024; WHO First Pulse Survey, 2020). Mugiraneza et al. (BMC Health Services Research, 2025): qualitative analysis of provider experiences with Rwanda's PBF architecture. Rwanda's 58,000 CHWs maintained community-level functions even when 60.9% reported stockouts and only 24% received adequate supervision during lockdown (Niyigena et al., BMJ Open, 2022) | Strong executive authority at national level with political consequences for mayoral non-performance. Functioning district health management infrastructure with genuine resource authority. Pre-existing CHW program at scale with defined community-facility role architecture | Settings without a strong executive. Multi-party democratic contexts where mayoral accountability to a central executive is politically contested. Post-conflict settings where state legitimacy at subnational level is fragile or disputed. Honduras natural experiment demonstrates the alternative for these settings |
| Honduras NGO Performance Contracting | Health service delivery contracted to NGOs rather than devolved to municipal government, creating external accountability requirements and organizational insulation from local political patronage networks. Contract terms specify performance targets. NGO selection through competitive process with explicit performance criteria | Honduras natural experiment, Intibucá state, 2005–2012: NGO-led performance contracting produced a 33% rise in family planning consultations, a 63% increase in follow-up prenatal consultations, and a 68% boost in postpartum consultations. Municipal government-led contracting with | Active NGO sector with capacity to contract and manage service delivery. Governance threshold assessment establishing that local government elite capture risk is sufficiently high to warrant NGO contracting as the preferred organizational form. Donor or government willingness to fund through NGO contracting channels | Settings where NGO sector capacity is insufficient. Settings where government insists on service delivery through public sector channels as a political condition of donor financing. Settings above the governance quality threshold where municipal government |

| ALTERNATIVE DESIGN | MECHANISM | EVIDENCE BASE | ENABLING CONDITIONS | CONTEXTS WHERE IT DOES NOT TRANSFER |
|--------------------|-----------|--|--------------------------------|--|
| | | identical resources in identical districts produced no statistically significant improvement (Zarychta, World Development, 2020; Root et al., Health Policy and Planning, 2020). Data from administrative health-centre records and household-survey evidence across 65 municipalities | rather than government systems | accountability infrastructure is sufficiently functional to reduce elite capture risk to manageable levels, at that point, government-led decentralization is preferable |

PRACTICAL DECISION TREE FOR PROGRAM DESIGNERS

The three alternative designs above are not interchangeable. Each has enabling conditions that determine whether it will function in a specific context. The decision tree below provides a practical selection logic for program designers working in FCAS or crisis-prone settings.

STEP 1: ASSESS WHETHER AN EXISTING PBF PROGRAM IS IN PLACE

IF: A PBF program already exists in the setting

→ THEN: Proceed to Step 2 (redesign rather than replace). The crisis-adaptive PBF redesign is the path of least institutional resistance.

IF: No PBF program exists

→ THEN: Proceed to Step 3 (select alternative from scratch).

STEP 2: FOR EXISTING PBF, ASSESS WHETHER REDESIGN IS CONTRACTUALLY FEASIBLE

IF: Donor and ministry agree to upfront surge-response clause negotiation and contract amendment infrastructure is in place

→ THEN: Implement Liberia crisis-adaptive PBF redesign: add community-based and prevention-oriented indicators, embed predetermined surge-response clauses that activate automatically on emergency declaration, and pre-position emergency payment schedule.

IF: Contract amendment governance is too slow or donor agreement is unavailable

→ THEN: Supplement PBF with a parallel non-financial incentive architecture, safety guarantees, professional recognition mechanisms, and community accountability that operates independently of the payment cycle. Document this as a design failure to address at the next contract renewal.

STEP 3: FOR NEW PROGRAM DESIGN: ASSESS GOVERNANCE THRESHOLD AND EXECUTIVE AUTHORITY

IF: Strong executive authority at national level AND functioning district management infrastructure with genuine resource authority

→ THEN: Rwanda imihigo accountability stacking model: embed health service delivery targets in political performance contracts at mayoral level, combined with CHW cooperative PBF at community level. The accountability cascade must operate at three levels to be effective.

IF: Weak or contested executive authority OR local government elite capture risk is assessed as high (governance threshold assessment confirms below ~40th percentile governance quality)

→ THEN: Honduras NGO performance contracting model: contract service delivery through NGOs with external accountability requirements. Insulate delivery from local political patronage networks. Competitive NGO selection with explicit performance criteria.

IF: Both weak executive authority AND insufficient NGO sector capacity

→ THEN: Do not implement PBF in any form until institutional co-conditions are established. Invest in governance threshold-building: district health boards with anti-capture mandates, needs-based transfer

formulae, civil society monitoring mechanisms. Incentive alignment follows, not precedes, accountability infrastructure.

THE INCENTIVE ARCHITECTURE FAILURE IS NOT ACCIDENTAL

The four perverse incentive categories documented above are not implementation failures. They are design failures; the predictable consequence of applying a routine-care incentive architecture to a crisis environment without redesigning it for that environment. In health systems where the probability of a crisis event within any five-year program cycle is high and in the 29 FCAS settings the World Bank classifies as fragile and conflict-affected, that probability is very high. The failure to incorporate crisis-adaptive incentive design is not an oversight. It is a systemic gap in how incentive programs are conceptualized and procured.

The practical implication for program managers and procuring agencies is specific. At the program design stage, not the crisis stage, when it is too late, every PBF program operating in an FCAS or crisis-prone setting should answer three questions. What happens to provider incentives when a health emergency is declared? What is the mechanism by which indicator sets are updated to reflect emergency priorities? And what is the non-financial incentive architecture that maintains provider motivation when the payment cycle is disrupted?

If the program design cannot answer these questions, it has designed for normal times and hoped for the best. That hope has a documented cost in DRC, Tanzania, Zimbabwe, and every other setting where data gaming is the rational response to **unreconstructed PBF meeting an emergency it was never designed to handle.**

The Liberia post-Ebola PBF model, the Rwanda imihigo accountability stacking architecture, and the Honduras NGO performance contracting evidence together demonstrate that the alternative designs exist, are documented, and are deployable. The decision tree above provides the selection logic. What remains is the procuring agency's willingness to invest the upfront design effort that prevents the downstream perverse effects.

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