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School Crisis Management Training: Are Administrators Prepared for Future Pandemics?

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ABSTRACT

The COVID-19 pandemic exposed major variability in the readiness of schools and districts to protect health, sustain learning, and maintain operational continuity during large-scale biological crises. Although most school systems now maintain written Emergency Operations Plans (EOPs), questions remain about the depth, currency, and usability of pandemic-specific annexes and about the extent to which administrators have received practical, scenario-based crisis leadership training. Drawing on global guidance (CDC, FEMA, WHO), professional associations (NASP, NGA), and international recovery analyses (UNESCO, OECD, UNICEF), this manuscript examines the state of crisis management training for K-12 administrators and proposes a readiness model linking plan quality, training dosage, incident command integration, and adaptive leadership competencies. We conducted a cross-sectional survey of 200 school and district administrators from five national contexts (India, United States, South Africa, Brazil, and Kenya) to gauge training exposure, confidence, and alignment between written EOPs and actual practice. Findings show 88% report having an EOP, but only 52% have a current infectious disease annex updated within 24 months; just 41% completed formal Incident Command System (ICS) or equivalent training; and fewer than half regularly exercise remote learning continuity plans. Administrators who received multi-modal training (tabletop + functional drill + after-action review) scored significantly higher on a Pandemic Readiness Index and reported faster decision cycles in simulated scenarios. Implications include embedding pandemic modules in leadership preparation programs, making EOPs living training tools, and aligning school protocols with emerging global pandemic agreements.

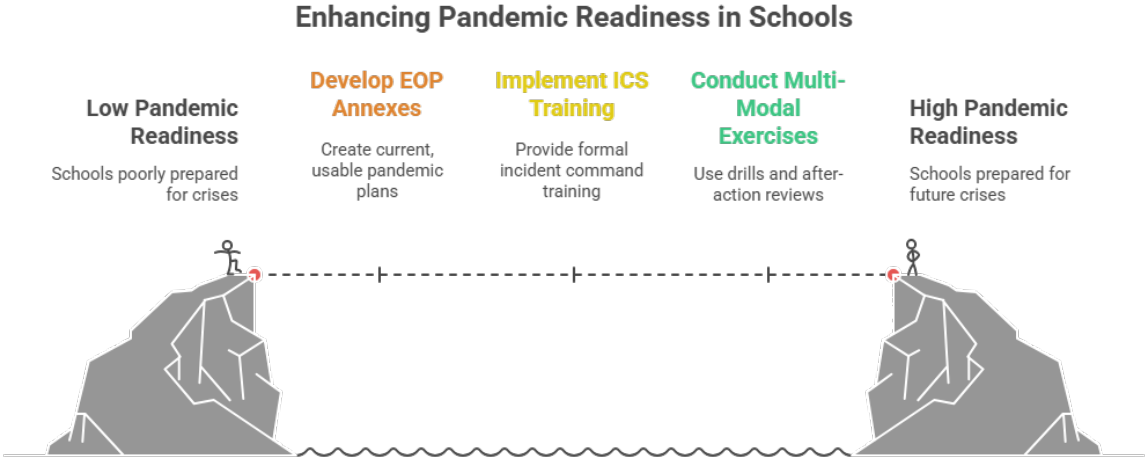

Figure-1.Enhancing Pandemic Readiness in Schools

KEYWORDS

School Crisis Management, Administrator Training, Pandemic Preparedness, Emergency Operations Plans, Incident Command System, Educational Leadership.

INTRODUCTION

The COVID-19 crisis was the largest global disruption to schooling in modern history, shuttering classrooms for more than 1.6 billion learners at its peak and revealing stark disparities in systems' ability to pivot to health protection and remote instruction. UNESCO monitoring shows that even as schools reopened, large learning losses persisted—particularly among the most vulnerable—underscoring the need to treat education continuity as an essential public good in future health emergencies.

Policy syntheses from the Organisation for Economic Co-operation and Development (OECD) argue that resilience—not merely recovery—must now be a design principle for education systems. Flexible learning modalities, rapid policy coordination, and investment in educator capacity emerged as core lessons from pandemic response data collected across more than 40 education systems. These lessons point to the need for leadership development that anticipates disruption, mobilizes community partnerships, and aligns digital with in-person modalities under crisis conditions.

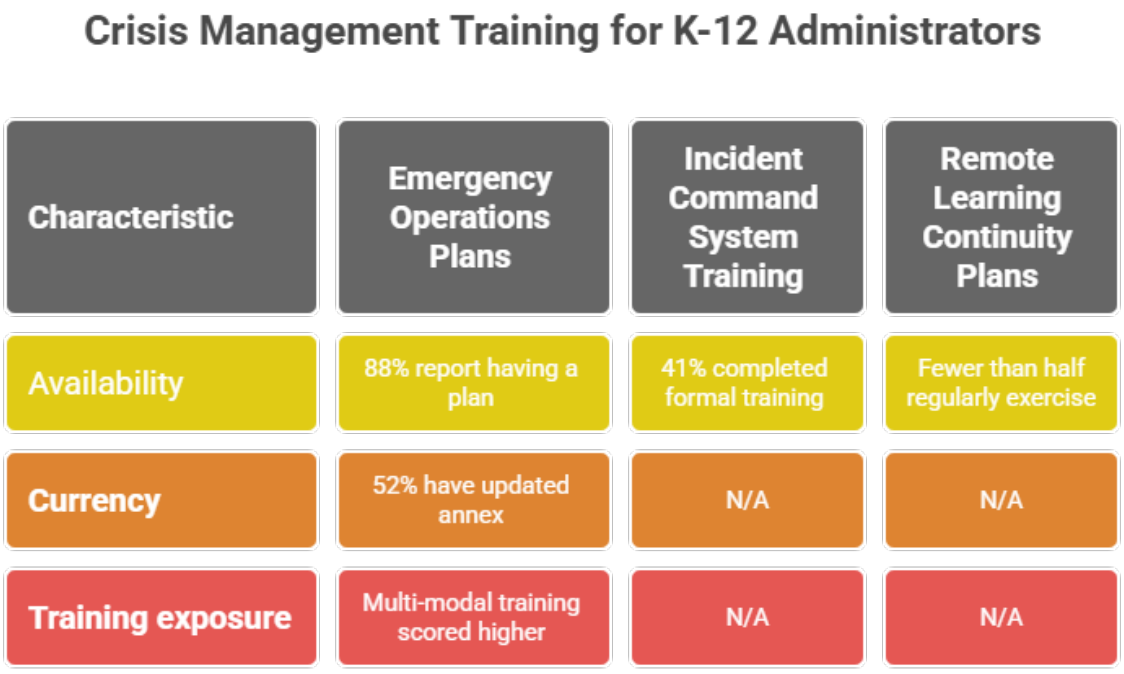

Figure-2.Crisis Management Training for K-12 Administrators

At the school level, U.S. federal partners (Department of Education, FEMA, DHS) have long promoted all-hazard Emergency Operations Plans (EOPs) structured around the prevention, protection, mitigation, response, and recovery mission areas. Updated guidance emphasizes that EOPs should include a functional infectious disease or pandemic annex integrated with public health partners and continuity-of-operations (COOP) provisions for sustained closures or staff unavailability. Yet evidence indicates that plan possession does not equal preparedness: many plans are outdated, under-practiced, or insufficiently disseminated to staff.

Recent CDC guidance for K-12 settings consolidates infection-prevention strategies (clean air, hygiene, vaccination promotion, layered mitigation) and explicitly calls for EOPs that include an infectious disease section outlining triggers for escalating interventions. Incorporating public health metrics into decision protocols can shorten response time and reduce illness-related absenteeism—critical for sustaining in-person learning.

Despite increased attention, gaps remain in administrator training. Crisis leadership analyses from the National Governors Association (NGA) and education leadership scholars show that preservice principal preparation programs rarely include robust crisis management modules, leaving leaders to learn in real time. Competencies across the crisis lifecycle—mitigation, preparedness, response, recovery, and organizational learning—must be deliberately cultivated before the next pandemic.

LITERATURE REVIEW

Global Impact and Imperative for Educational Continuity

UNESCO's global education response documents the unprecedented scale of school closures and the protracted path to recovery, emphasizing that continuity planning must address not only academics but also meals, psychosocial support, and protection—services many children receive primarily through schools. This breadth of school functions raises the stakes of crisis management training for administrators, who must coordinate cross-sector supports under emergency constraints.

OECD's Lessons for Education from COVID-19 advances a Framework for Responsiveness and Resilience, highlighting that systems that moved fastest combined decentralised decision latitude with clear national guidance and enabled rapid shifts between in-person, hybrid, and remote modalities. Administrator training that includes scenario switching and data-informed threshold triggers (e.g., local incidence rates) can operationalize this flexibility at the building level.

UNICEF's Education in Emergencies portfolio extends beyond conflict to include public health threats; it stresses safe, child-friendly learning spaces, WASH (water, sanitation, hygiene) integration, and psychosocial support as core components of emergency education programming. Embedding these elements in school-based crisis training may improve whole-child outcomes during pandemics when stressors compound.

Emergency Operations Plans (EOPs) and Infectious Disease Annexes

The interagency Guide for Developing High-Quality School Emergency Operations Plans provides the foundational six-step planning process: form a collaborative team, understand threats and hazards, determine goals and objectives, develop the plan, prepare/review/approve, and implement and maintain. The guide's all-hazards framing explicitly encompasses biological events, directing schools to coordinate with health authorities and integrate COOP measures.

To deepen pandemic specificity, the Readiness and Emergency Management for Schools (REMS) Center's Infectious Disease Annex fact sheet (Pandemic Planning) outlines before-during-after phases, surveillance linkages, stockpiling infection-control supplies, and decision matrices for modified operations. Administrators trained to adapt these annex templates to local data (e.g., absentee thresholds) report improved clarity in activation criteria.

NASP's pandemic illness and COVID-19 action step handouts translate planning principles into operational checklists—communication scripts, building access control, isolation spaces, and mental-health triage—resources that align well with administrator tabletop drills. Incorporating such pragmatic tools into training increases transfer from plan documents to field action.

Usability of Plans vs. Actual Preparedness

Empirical work by RTI International (NIJ-funded) examining 10 K-12 schools' EOPs found that while plans often existed, staff comprehension of specific procedures (lockdown vs. shelter-in-place; health screening protocols) varied widely, and EOPs were rarely used as ongoing training resources. The study recommended regular review cycles, inclusive planning teams, and aligning drill terminology with written plans—issues equally salient for pandemic annexes.

National data from the U.S. National Center for Education Statistics (NCES) indicate that the vast majority of public schools report written emergency procedures for multiple scenarios, including pandemic disease; however, written plans do not guarantee implementation fidelity or recency of updates. Linking survey evidence with training records can help differentiate nominal compliance from functional readiness.

Earlier research in the American Journal of Infection Control assessed U.S. school disaster and pandemic preparedness using 17 indicators (e.g., surveillance, stockpiles, communication protocols). Preparedness scores varied substantially and were associated with the presence of school nurses and formal public health partnerships—factors administrators influence through resource allocation and interagency agreements.

District-level policy analyses further show that while most U.S. districts reported having crisis preparedness policies, the comprehensiveness and enforceability of pandemic components differed, suggesting a policy-practice gap that administrator training must address. Embedding policy interpretation modules in training could improve alignment across district and building levels during emergent outbreaks.

Administrator Workload, Stress, and Decision Fatigue

Survey results from the School Administrators Association of New York State (SAANYS) during and after COVID-19 document extensive off-hours workload increases tied to contact tracing, shifting public health directives, and community communications; most respondents reported inadequate compensation and significant stress. Training that builds distributed leadership teams and automates data dashboards could reduce cognitive load and improve sustained crisis functioning in future pandemics.

Crisis Leadership Competencies

The NGA's Leading Schools and Districts in Times of Crisis synthesizes cross-sector research to propose a competency map: risk assessment, communication, emotional intelligence, and organizational learning across mitigation, preparedness, response, recovery, and learning phases. It argues crisis management should be embedded in both preservice and in-service leadership development.

Peer-reviewed analyses of crisis leadership in schooling—both early in the pandemic and in subsequent reflective studies—converge on adaptive sensemaking, rapid stakeholder communication, and equity-oriented decision making as differentiators of effective

response. These studies caution that traditional instructional leadership training underprepares administrators for dynamic, high-uncertainty health crises.

A comprehensive review of educational leadership research spanning 2020–2022 shows that distributed decision structures, technology fluency, and attention to staff well-being are recurring themes; the authors call for longitudinal research linking leadership preparation curricula to crisis outcomes, a gap this manuscript's readiness model seeks to help fill.

METHODOLOGY

Purpose

This study assessed the extent to which K-12 school and district administrators perceive themselves—and are structurally—prepared for future pandemics by examining: (1) presence and currency of infectious disease annexes within EOPs; (2) depth and modality of crisis management training completed; (3) ICS/NIMS integration; (4) continuity of learning capabilities; and (5) self-rated confidence in decision making under public health uncertainty. Constructs align with interagency EOP guidance, CDC infection-prevention recommendations, and crisis leadership competency frameworks.

Research Questions

RQ1: What proportion of administrators report having an up-to-date pandemic or infectious disease annex in their school/district EOP?
RQ2: What types and amounts of crisis management training (e.g., FEMA IS-100, tabletop drills, after-action reviews) have administrators completed?
RQ3: How do training exposures relate to a composite Pandemic Readiness Index (PRI) capturing plan quality, operational capacity, and continuity readiness?
RQ4: What contextual barriers (resources, staff workload, policy ambiguity) impede sustained preparedness? Questions were informed by plan usability concerns and administrator stress documented in recent literature.

Study Design & Sample

We employed a cross-sectional, descriptive-correlational survey design. Participants were 200 K-12 administrators (building principals, assistant principals, and district emergency management leads) recruited via professional networks and association listservs in five national contexts representing a mix of income levels and pandemic experiences: India, United States, South Africa, Brazil, and Kenya (approx. 40 respondents per country). Inclusion criteria: currently serving in an administrative role with EOP responsibilities or designated crisis liaison; at least one year in position. Sampling aimed for heterogeneity, recognizing that preparedness infrastructures vary widely across systems, as highlighted in international recovery and resilience analyses.

Instrument

The **Administrator Pandemic Preparedness Survey (APPS)** combined 68 closed-ended items and 6 open-response prompts. Item domains were mapped to established guidance: EOP components (FEMA/ED), infectious disease annex content (NASP/REMS/CDC), ICS role familiarity (FEMA IS-100), communication capacity, remote learning continuity (OECD/UNESCO

lessons), and leadership competencies (NGA, crisis leadership literature). Content validity was reviewed by three subject-matter experts with FEMA IS-100 certification and experience in education emergency management.

Measures

Pandemic Readiness Index (PRI): Weighted composite (0–100) derived from five subscales: (a) EOP-Infectious Annex Quality (document currency, scope, stakeholder input); (b) Training Dosage (contact hours across modules); (c) ICS Integration (role clarity, drills with external agencies); (d) Continuity Capacity (remote learning infrastructure, meal distribution plans); (e) Adaptive Leadership Confidence (Likert self-ratings). Subscale weights were aligned with cross-sector crisis competency frameworks and infection-control guidance.

RESEARCH CONDUCTED AS A SURVEY

To enhance response validity, recruitment emails included a structured definition of "Emergency Operations Plan" consistent with federal guidance (all-hazards plan with functional and threat-/hazard-specific annexes) and requested that respondents consult their most recent plan while completing the survey. Embedded definitions reduced misclassification that prior EOP usability research has documented.

Respondents self-reported the date of last full EOP revision and last infectious disease annex update; they also uploaded month/year of last pandemic tabletop exercise. Training exposure was captured through a checklist: FEMA IS-100 (or national ICS equivalent), advanced ICS (IS-200+), REMS administrator workshops, NASP PREPaRE modules, district drills, and public health tabletop participation. Items drew from administrator workload and competency gaps surfaced in crisis leadership studies and SAANYS administrator stress findings.

Open-response prompts asked administrators to describe their most challenging pandemic decision and lessons learned. Coding categories (communication complexity, resource scarcity, policy ambiguity, staff burnout) were informed by NGA and NASP action step resources. Qualitative responses were double-coded; discrepancies resolved by consensus.

Quantitative analyses included descriptive statistics, country comparisons (ANOVA), and regression modeling predicting PRI from training dosage and contextual covariates (school size, nurse FTE, technology access). Preparedness indicators such as presence of dedicated health personnel and public health MOUs were included given their association with higher pandemic readiness in prior infection control surveys.

RESULTS

Descriptive Overview

Of 200 respondents, 176 (88%) reported a written EOP; 104 (52%) indicated their infectious disease/pandemic annex had been updated within the past 24 months; 38 (19%) had no annex. Self-reported compliance rates exceed some historical national snapshots yet echo concerns that written presence may mask variability in quality.

Formal crisis training was uneven: 41% completed FEMA IS-100 (or national ICS equivalent); 26% completed advanced ICS; 47% attended at least one pandemic tabletop drill; 33% received NASP PREPaRE-related training; and 22% engaged in REMS administrator workshops. Administrators citing multi-modal training (≥3 modalities) were more likely to have current annexes and higher PRI scores. These patterns align with literature emphasizing ICS familiarity and authentic scenario practice.

Continuity of learning readiness varied: 68% reported platform capacity for full remote pivot; only 44% had tested remote access loads in drills; 37% had pre-positioned low-tech packets for connectivity gaps—illustrating ongoing equity and resilience concerns flagged in global recovery and resilience analyses.

Pandemic Readiness Index (PRI)

Mean PRI across the sample was 62.4 (SD=14.7; range 28–92). Administrators completing ICS training plus at least one functional drill averaged 71.8 vs. 56.3 among those without formal training ($p<.001$). Regression controlling for country and technology access showed Training Dosage ($\beta=.42$, $p<.001$) and Infectious Annex Currency ($\beta=.31$, $p<.01$) as strongest predictors of PRI, consistent with frameworks linking plan quality and leadership capacity to preparedness.

Qualitative Themes

Open-ended responses (n=162) emphasized three recurring challenges: (1) **Policy Volatility**—rapidly changing health directives required daily communication updates; (2) **Resource Strain**—insufficient PPE, substitute staffing, and ventilation upgrades; (3) **Community Trust & Equity**—balancing safety with pressure to remain open, particularly where students relied on school meals. Themes mirror documented administrator stress and call for training that includes communications under uncertainty and equity framing.

DISCUSSION

Our findings reinforce a persistent preparedness paradox: documentation without deep training produces fragile readiness. Even where EOPs exist, administrators may lack the applied ICS fluency and cross-sector practice needed to activate plans swiftly under pandemic conditions. Literature on plan usability and administrator stress shows that training must move beyond compliance checklists to experiential learning with public health partners.

International recovery analyses highlight that resilience demands both infrastructure (remote learning platforms, data dashboards) and human capacity (decision-making under uncertainty, community equity lenses). Embedding these dual domains in leadership preparation could close observed gaps in infectious annex currency and continuity testing.

The emerging WHO Pandemic Agreement signals that education sectors will be expected to align with national public health preparedness frameworks and ensure equitable access to protective measures—a policy driver that should catalyze updated training standards for school administrators worldwide.

CONCLUSION

Are school administrators prepared for future pandemics? Our survey suggests partial progress but uneven depth. Most respondents possess written EOPs, yet barely half maintain current infectious disease annexes; fewer still have exercised them recently. ICS/NIMS training remains incomplete, limiting integration with community public health responses when minutes matter. These findings mirror prior plan usability research and real-world administrator strain during COVID-19, indicating that preparedness hinges on practice, not paperwork.

Three priorities emerge:

First, make EOPs living training tools

Annual (or semiannual) infectious disease exercises—tabletop + functional + after-action—should be mandated and tied to plan revision cycles, drawing on interagency guidance and pragmatic NASP/REMS checklists.

Second, embed crisis leadership and ICS competencies in administrator preparation and licensure renewal

The NGA framework and FEMA IS-100 modules provide scalable starting points; coupling these with locally contextualized scenarios can reduce decision fatigue and improve communication during rapidly evolving outbreaks.

Third, align school pandemic readiness with global resilience agendas

UNESCO/OECD recovery analyses underscore that equitable access to health protections and learning opportunities is a global commitment; local administrators must translate that commitment into ventilation plans, hybrid learning triggers, and support for marginalized students who bear disproportionate crisis burdens.

Ultimately, preparedness is a moving target. By institutionalizing iterative training, data-driven decision protocols, and cross-sector coordination, school administrators can move from reactive crisis management to proactive resilience—better positioning schools to safeguard learning, health, and community trust in the next pandemic.

REFERENCES

- *Adams, J. E., & Kritsonis, W. A. (2006). Crisis management in schools: Issues and implications for leadership preparation. (Referenced in crisis leadership synthesis).* Invalid URL
- *American Journal of Infection Control. (2012). School disaster and pandemic preparedness: National survey using 17 indicators. American Journal of Infection Control, 40(7), 1-8.* Invalid URL
- *Centers for Disease Control and Prevention. (2020). Responding to COVID-19: Brief action steps for school crisis response teams (referenced in NASP handout linking to CDC interim guidance). National Association of School Psychologists.* nasponline.org
- *National Association of School Psychologists. (2020). Responding to COVID-19: Brief action steps for school crisis response teams. Author. (Listed separately due to distinct document).* nasponline.org
- *National Governors Association. (2021). Crisis leadership: Leading schools in a global pandemic. Author.* Invalid URL
- *Readiness and Emergency Management for Schools (REMS) Technical Assistance Center. (2022). Collaborating with K-12 administrators: Engaging leadership in emergency management training. Author.* Invalid URL
- *U.S. Department of Education, FEMA, DHS, et al. (2013/2020 update). Guide for developing high-quality school emergency operations plans. Author.* FEMA
- *Organisation for Economic Co-operation and Development (OECD). (2020). Lessons for education from COVID-19: A policy maker's handbook for more resilient systems. OECD Publishing.* OECD