

WHITE PAPER

The Restorative Mandate

Clinical Evidence and Financial ROI
for the Biophilic Healthcare Environment

Executive Summary



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THE ART OF PRESERVED NATURE

The Double Crisis: Workforce and Patient Experience

American healthcare is navigating two simultaneous crises - and the built environment is at the center of both. Registered nurse turnover has reached 18.4% nationally,² with 43.2% of physicians reporting at least one burnout symptom.⁵ Replacing a single nurse costs \$50,000-\$70,000; replacing a physician costs \$500,000-\$1,000,000.⁶ Every year of sustained attrition costs a 100-bed hospital hundreds of thousands of dollars before a single patient outcome metric is measured.

Simultaneously, beginning in FY 2030, the CMS Hospital Value-Based Purchasing (VBP) Program withholds 2% of base operating DRG payments, which hospitals can earn back based on performance - of which 30% is linked to HCAHPS patient experience scores, including how patients rate the restfulness of their environment.⁷ The design of the clinical space is now directly tied to reimbursement. Both crises share the same upstream cause: environments that do not support the human biology of recovery.

18.4%
Annual RN turnover
rate [NSI 2024]

43.2%
Physicians reporting
burnout [AMA 2024]

\$924K - \$1.37M
Potential modeled annual
value per 100-bed hospital

FY 2030
CMS ties 2% Medicare
to HCAHPS⁷

The Solution: Passive Clinical Interventions

This paper introduces a category largely absent from the healthcare design conversation: built environment elements that can only be described as Passive Clinical Interventions.

Preserved botanical systems - all-natural moss, fern, and foliage species frozen in time - suspended at their peak natural state through a proprietary preservation process - resolve the Healthcare Double-Bind by delivering documented neurophysiological benefits without infection control compromise, maintenance burden, or chemical safety risk.

Neurophysiological Restoration

fNIRS neuropsychological study (2025): measurable DLPFC stress reduction in hospital nurses after 10-minute biophilic exposure. The effect is autonomic - it operates below conscious awareness, continuously, across every shift.¹⁸

Infection Control Compatibility

No soil, water, irrigation, or biological activity. Compatible with ICU, oncology, infusion, transplant, and surgical recovery units where living plants are CDC-contraindicated.¹⁶ Shadow box configurations available for the most sensitive clinical environments.

Zero Maintenance Lifecycle

Preserved botanical elements are frozen in time - suspended at peak natural state. No irrigation, drainage, horticultural care, or replacement driven by plant mortality. The installation on day one performs identically on year ten.

Regulatory and Reimbursement Alignment

HCAHPS Restfulness of Hospital Environment is a scored dimension under CMS VBP beginning FY 2030. Biophilic design directly improves patient perception of environment - converting a capital investment into a documented reimbursement recovery mechanism.⁷

Documented Clinical Outcomes

Outcome	Source / Context
8.5% shorter postoperative stays	Patients with nature views vs. brick wall; Ulrich 1984 ⁸
Measurable DLPFC Stress Reduction	10-minute biophilic exposure in hospital nurses; fNIRS study 2025 ¹⁸
39% of nurses cite environment as burnout driver	Second only to staffing shortages; KLAS Research 2024 ⁴
NRC 0.44 verified acoustic performance	Noise reduction coefficient; third-party verified whole system
\$180K-\$260K HCAHPS reimbursement gain	Conservative-optimistic recovery under CMS VBP FY 2030 ⁷

The Financial Statement: \$924K-\$1.37M In Potential Modeled Annual Value

The modeled annual value of a properly specified biophilic installation in a 100-bed hospital is derived from four independently calculated mechanisms, each traceable to documented cost benchmarks and peer-reviewed outcomes:

\$259K-\$322K
RN Turnover Reduction
NSI: 4.6 fewer departures
x \$56,300 avg. cost

\$175K-\$350K
Physician Turnover Reduction.
KLAS 2024: 0.35 fewer
departures x \$500K-\$1M cost

\$310K-\$440K
Patient LOS Reduction
Ulrich: 8.5% x 10-15%
of exposed admissions

\$180K-\$260K
HCAHPS / VBP
Reimbursement: 2% x \$60M
x 30% HCAHPS weight

Total Modeled Potential Annual Value\$924K → \$1.37M

The Clinical Filter: Comparing the Options

Clinical Criteria	Living Plants	Faux / Artificial	3rd-Party Verified Preserved Systems
Infection control (ICU/Onc.)	× Restricted	× Particulate risk	✓ Compatible
Fire rating - full system	× None standard	× Typically flammable	✓ ASTM E84 Class A
VOC / chemical safety	× Variable	× No documentation	✓ CDPH certified
Maintenance burden	× High (irrigation)	✓ Minimal	✓ Zero
Lifecycle	× 1-3 years	× 1-3 years	✓ 20+ years
Total cost of ownership	× Highest long-term	× Moderate	✓ Lowest overall

About Garden on the Wall®

Garden on the Wall® is the pioneer and leader in preserved garden, moss wall, planter insert, and preserved draping foliage installations for commercial interiors - trusted by Google, Microsoft, Amazon, Mayo Clinic, Memorial Sloan Kettering, Hilton, Marriott, and hundreds of others. With 2,020+ installations, 460+ award-winning projects, and 193,000+ square feet installed, Garden on the Wall® is the only preserved garden provider in the world with a published EPD (Environmental Product Declaration) with complete life-cycle environmental impact data, as of February 2026.

7-year Warranty
Healthcare-grade
materiality

20+ year Lifecycle
Lowest total cost of
ownership

Zero Maintenance
No water, light, or care
required

Complete Verification
Third-party tested & certified

Download the full white paper with complete research citations, and implementation guidance at gardenonthewall.com.