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SCALABLE IMPLEMENTATION BLUEPRINT FOR STUDENT-LED DIGITAL HEALTH LITERACY CENTERS

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Abstract:

Introduction: The global digital health market is expanding rapidly, driven by remote patient monitoring (RPM), telehealth, and wearable biosensors; however, a critical adoption gap persists among older adults and underserved populations managing chronic conditions such as hypertension, diabetes, and heart failure, with studies indicating up to 50% device abandonment within 90 days due to low digital literacy and interface anxiety, resulting in preventable readmissions and lost revenue. Current clinical workflows lack dedicated personnel for patient technical onboarding, yet health sciences students in clinical years possess inherent technological fluency without structured pathways for community-facing digital health engagement. **Objectives:** To provide a turnkey implementation plan for establishing Student-Led Digital Health Literacy Centers, with specific goals to: (1) define a lean student governance structure; (2) operationalize the "Prescription-to-Practice" service delivery model; and (3) outline a sustainability model combining diversified revenue streams. **Methodology (The Implementation Blueprint):** The Center operates within outpatient clinics affiliated with academic teaching hospitals, ensuring patient safety oversight and LGPD/HIPAA compliance, following a standardized 6-Component Framework: (1) Student Governance through a Student Executive Committee (President, Operations Lead, Outreach Coordinator) managing daily workflows under Advisory Board supervision; (2) Strategic Advisory Board comprising digitally expert faculty and MedTech representatives providing curriculum validation, clinical safety protocols, and strategic guidance; (3) Student Competency and Certification requiring clinical-year medicine, nursing, or biomedical engineering students to complete a 40-hour training curriculum covering RPM device operation, patient communication, data privacy, and adverse event escalation protocols, assessed via objective structured practical examinations (OSPEs), earning designation as "Certified Digital Health Mentors"; (4) Patient Services through the "Prescription-to-Practice" pathway providing hands-on device setup and telehealth onboarding for patients selected based on physician referral, confirmed chronic disease diagnosis, and informed consent, operating under clinical supervision; (5) Partnership Ecosystem with formalized referral agreements and MedTech equipment access contracts; and (6) Sustainability Model combining B2B service contracts, certification fees, and corporate sponsorships. A quasi-experimental pre-post study will compare RPM adherence and 30-day readmission rates between Mentor-assisted onboarding and standard care over 12 months

at one academic outpatient clinic (target n=200), analyzed using chi-square tests for categorical outcomes and independent t-tests for continuous variables, with significance set at $p<0.05$. **Expected Results:** Primary: ≥30% increase in 90-day RPM adherence; Secondary: ≥15% reduction in 30-day readmissions; Operational: ≥90% student certification completion and ≥80% patient satisfaction assessed via validated questionnaire. **Conclusions:** This blueprint provides healthcare managers with a turnkey implementation plan integrating clinical education and operational viability for bridging the digital literacy gap in chronic disease management. The model scales by leveraging flexible student governance with expert strategic oversight at the intersection of clinical practice and digital health economic viability.

Keywords: Implementation Science; Business Model; Digital Health Equity; Certified Digital Health Mentor; Student-Led Initiatives.