

## MAXIMIZING NURSING RETENTION AND SUCCESS

### 3. Initiatives to Increase Nursing Student Retention

#### A. OVERVIEW OF THE PROPOSED INITIATIVE

The [REDACTED] ([REDACTED]) maintains the largest Associate Nursing Degree (ADN) program in Maryland. Each year, [REDACTED]'s School of Health Professions admits approximately 350 new nursing students. All of them have completed the pre-requisite courses; applied and been accepted via selective admissions; and, therefore, possess the academic qualifications to perform consistently within the standards and expectations of the program. However, the intense pace and rigors of nursing programs place students at high risk for failure unless they arrive able to rapidly and effectively adjust. [REDACTED] recognizes that retention support *must* begin at the pre-entry level and must be designed to be *equally* accessible to everyone in [REDACTED]'s racially, culturally, and economically diverse student body. The evidence-based initiatives in this proposal buttress the academic and life-skill development of nursing students prior to entry and provide intensive and sustained study support upon admission. Underlying all efforts is a focus upon developing replicable and sustainable, evidence-based, retention-enhancing initiatives.

#### NSP II Phase 2 Grant

Retention efforts specifically dedicated to the nursing program did not exist before [REDACTED] received its first NSP II Phase 2 grant. Thus, prior to 2007, approximately 60% of nursing students did not graduate in two years. Using Phase 2's external and in-kind resources, [REDACTED] experimented with various initiatives to increase academic achievement, course passage, overall retention, and graduation rates. Among a variety of interventions tested in Phase 2, [REDACTED] identified three areas with the largest, most consistent and enduring impact:

- Tools for Success (a set of pre-entry workshops for entering nursing students to help them develop effective time management and study skills);
- Supplemental Instruction (SI) (weekly out-of-class structured study sessions facilitated by a Student Leader) and
- Tutoring (using a targeted, early alert referral system).

Table I displays the graduation and NCLEX passage rates for fiscal years 2008-2009 for the [REDACTED] Nursing Program. Prior to Phase 2, slightly more than 40% of the students who entered the program in 2006 and 2007 graduated on time two years later in FY 2008 and 2009; when measured after three years, the graduation rate increases approximately 20%. Attrition occurring during the first two semester courses is the principle factor underlying the graduation rate: only 56% of students entering the program in FY 2008 passed both of the first two semester courses on their first try. In contrast, the NCLEX passage rates in FY 2008 and 2009 continue to be one of the highest in Maryland (95.7 and 96.5%). This underscores that at [REDACTED], the key barrier to increasing the number of bedside nurses is *graduation rather than passage of the NCLEX*.

**Table I: FY 2008-2009 Faculty and Enrollment Figures and Graduation & NCLEX Passage Rates**

Students Graduating in FY	# Full-Time/ # Part-Time Faculty	Total Enrollment	2 Year Graduation Rate #graduated/#enrolled	3 Year Graduation Rate #graduated/#enrolled	NCLEX Passage Rate
2008	26/69	547	44% (115/260)	68% (186/274)	95.7
2009	25/69	561	42% (115/272)	63% (164/260)	96.5

The passage rate for the first semester nursing course has **increased by 20%** since the start of Phase 2. Appendix 1 shows this impressive progression over five semesters. The first impact of Phase 2 on graduation rates will be evident in the spring of 2010 (the last semester of Phase 2), raising [REDACTED]'s graduation rate a **projected 50%**.

[REDACTED]'s Phase 2 results show that such dramatic reductions in attrition rates, and subsequent increases in graduation rates, are attainable within a three-year span of time with targeted Student Support Strategies. By fine-tuning these methods, [REDACTED] estimates that increases of 40% in graduation rates over a five-year time span are feasible and realistic. Phase 2 allowed [REDACTED] to introduce and pilot test retention activities; Phase 5 will now allow [REDACTED] to build on accomplishments to date and nearly *double* its pre-Phase 2 graduation rate. This proposal incorporates the promising results of Phase 2 into its design for Phase 5.

## **B. PROJECT GOALS AND OBJECTIVES**

[REDACTED] aims to consistently increase retention and graduation rates of nursing students from pre-Phase 2 levels in the 40% range to significantly improved two-year graduation rates of 75% over five years. By June 30, 2015, this change in retention alone will result in 103 *more* nursing students *each year* completing their nursing studies, based on current admissions.

The overall Project Design for Phase 5, presenting Goals and Objectives, is illustrated in Graphic #1 shown below. This diagram also indicates where specific sections are described subsequently in the text. Phase 5 includes key interventions and strategies from [REDACTED]'s Phase 2 experience that have contributed to ever-increasing levels of participation in, and impact of, retention activities. Phase 2 data show that increased participation leads to improved performance in individual courses and then cumulatively to the overall ability to stay in nursing school and graduate. The methods and techniques described in this proposal formulate a validated model that can be institutionalized within nursing education systems.

### **1. NSP II Goal**

[REDACTED] believes that its most effective, expedient and cost-effective way to increase the number of bedside nurses in Maryland is to focus on retaining students admitted to the nursing program. It is less costly to retain students than to expand the program; no new infrastructure is required; no new faculty members are required; no new marketing techniques to advertise the program to students are required. The focus is instead upon targeting support to *already* existing students to assist them in being successful throughout their nursing studies and ultimately, through to graduation.

[REDACTED] will increase the number of bedside nurses in Maryland through two complementary pathways: 1) increasing the graduation rate of its own nursing students and 2) offering a Retention and Success Model for other nursing schools to potentially do the same. Licensure completion rates (NCLEX) and employment for all nursing graduates will be reported by [REDACTED], in accordance with NSP requirements.

### **2. Performance Goal 1: Graduation Rates**

Appendix 2 provides operational definitions and detailed, five-year projected changes in indicators, from a baseline of 2009 through 2015, for all goals and objectives.

**Goal 1a.** *Increase two-year graduation rates of nursing students in the [REDACTED] ADN nursing program by 63% (from 42 to 75%) through targeted student support strategies.*

This dramatic expected increase in graduation rates is made possible through the momentum developed and achievements already well underway in Phase 2.

**Goal 1b.** *Increase the three-year graduation rates of nursing students in the [REDACTED] ADN nursing program by 25% (from 72 to 89%).*

The three-year graduation rate, commonly used among nursing schools, is also reported to the Maryland Board of Nursing (MBON) and National League of Nursing (NLN) for accreditation purposes.

**Goal 1c.** *Increase by 502 the number of additional two-year nursing graduates produced by the end of Phase 5.*

### **Goal 1d. Cost per Student**

Over five years of Phase 5, approximately 1,750 students will enter [REDACTED]'s nursing program. The projected cost per student reached (75% of 1,750 = 1,313 students reached) is \$1,131. During these same five years, [REDACTED] will graduate 502 more students than it would have without the resources of Phase 5. The cost per additional student graduated is \$2,959.

## **3. Performance Goal 2: Passage Rates**

**Goal 2:** *Increase and sustain passage rates in both the first and second semester Year 1 nursing courses by 20%.*

[REDACTED]'s nursing program admits new students *each* fall and spring semester; thus passage and graduation rates are calculated for two different cohorts of students each calendar year before averaging for the entire year.

**Nursing Courses Targeted for Retention Efforts:** [REDACTED]'s ADN curriculum offers one course, "Nursing Fundamentals" (called "Fundamentals" hereafter), during the first semester. The second semester starts with a nine-week "Nursing Concepts I" (called "Concepts" hereafter) course followed by a six-week course in either Obstetrics or Psychology. For the past five years, Fundamentals and Concepts suffered the highest failure rates in the entire curriculum. These two classes provide the building blocks for the semesters that follow; they are *essential* to student success. This means that once a nursing student has successfully completed the high-risk first year, s/he is well positioned to successfully complete the second year and graduate on time.

The key to improving graduation rates at [REDACTED] is to increase the proportion of students who stay and successfully complete the program, especially through the high-risk first year. Thus, Goal 2 focuses on the two main courses for Year 1. In establishing goals for course passage rates, the data show that in each semester, one section performs at a *significantly* lower level than the other three (see details in Appendix 3). These clear outliers for both the first and second semester classes reflect the overall implementation challenge of Phase 5, i.e., *to identify underlying causes and reduce variability* in outcomes so that all students experience a complete and consistent offering of retention activities.

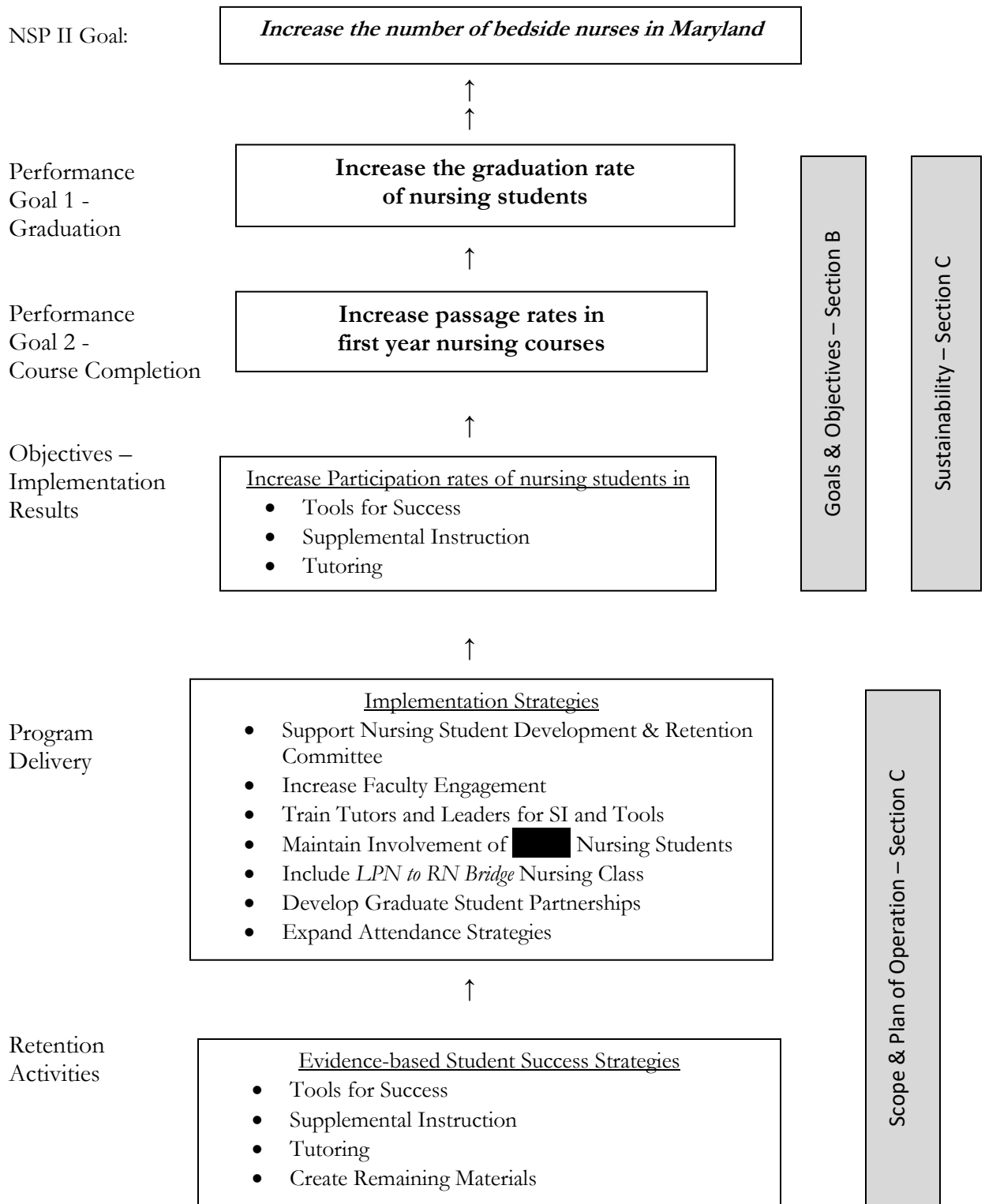
### **Goal 2a. First Semester – Fundamentals**

*Increase the passage rate of all four sections from 72% (lowest performing section) to 90% (highest performing section, Phase 2)*

### **Goal 2b. Second Semester – Concepts**

*Increase the passage rate of all four sections from 81% (lowest performing section) to 95% (highest performing section, Phase 2)*

**GRAPHIC 1. PROJECT DESIGN FOR [REDACTED]'S RETENTION AND SUCCESS PROJECT – PHASE 5**



#### 4. Objectives – Implementation Results

Although myriad factors contribute to any given student’s performance on any given exam, ██████’s results from Phase 2 point to a strong relationship between participation in nursing retention activities and increased ability to pass the two high-risk Year 1 courses. Uneven participation in these three retention activities during Phase 2 (see Table 2 below) is attributed to scheduling difficulties, weak promotion in some locales, and variability in delivery. All of these weaknesses will be addressed in Phase 5.

Table 2 below shows participation and performance targets, with baseline figures that are averages from spring, summer and fall sessions in 2009. The principal intention is to increase participation; and for those who do attend, to sustain the performance gains already demonstrated as possible in Phase 2. Performance targets are based on Phase 2’s regression analyses that show quantifiable improvement in test scores for students who participated in the specific intervention. For example, students who participated in Tools scored 6 points higher than those who did not on each of the five exams in their first course, giving them a total 30-point advantage by the end of the course. Operational definitions for calculating these performance targets appear in Appendix 2.

**Table 2. Targets for Increasing Attendance and Impact in Student Success Strategies**

Student Success Strategy	Baseline Fall 2009	Final 6/30/2015	Overall Gain
<b>Tools for Success</b>			
• Attendance at all three parts	27%	75%	178%
• Performance – additional points on each test	6 pts/exam	6 pts/exam	sustain
<b>Supplemental Instruction</b>			
• Attendance (at least three sessions)	52%	75%	44%
• Performance – additional points on each test	0 pts/exam	1 pt/exam	1 pt/exam
<b>Tutoring</b>			
• Attendance (for those eligible in the 1 <sup>st</sup> year)	39%	75%	92%
• Performance – additional points on exam immediately after tutoring	5 pts/exam	5 pts/exam	sustain

#### 5. Benefits to be Achieved, for Whom and by Whom

The ambitious goals and objectives outlined for Phase 5 are well grounded in ██████’s Phase 2 performance and the evidence-based logic directing the project’s approach.

**For students and faculty:** The implementation strategy undertaken in Phase 5 seeks to increase course passage and graduation rates by serving *all* students in difficult courses rather than identifying and serving a subset of at-risk students. This “full coverage” approach affords several secondary benefits in addition to increasing passage and graduation rates. The exposure to the intervention is not simply felt by individual student participants; its scope is collective by construction. It creates a *culture of expectation* of participation in study support by students and faculty members as an integral part of the nursing program. It shifts the perception of study support away from “remedial” wherein participation brings stigma and labeling. Most students will attain sufficient improvements in performance by attending Tools and SI; for those who fail despite attending, tutoring is immediately available, either individually or in small groups.

Even though the “full coverage” approach was used in Phase 2, results show that indeed, those students who were *most at-risk* actually participated the most in retention activities. For example, Perkins-eligible students comprised 70% of the incoming class of spring 2009. These students

attended SI at significantly higher rates than their counterparts: 87% versus 73%, respectively, and enjoyed the same level of benefits. An additional benefit to all students is that the skills introduced in Tools and repeatedly reinforced in SI are transferable to upper level courses since they are not linked to mastery of specific content but rather to *effective study habits*. New skills learned in Year 1 are very likely to remain with a student through graduation in Year 2.

**For [REDACTED] overall:** The scope of Phase 5 extends beyond students to benefit the institution as a whole. Built into the design of the intervention are the administrative mechanisms to promote sustainability of the positive results. [REDACTED]'s Phase 5 efforts will seek to incorporate best practices from the literature that shows that success and sustainability of initiatives are more likely for institutions: 1) which reflect a "lived mission"; 2) wherein faculty, staff and administrators work in collaboration to create synergy and share responsibility for student success; 3) that are supported by resource commitments from senior administration as well as active implementation by front-line staff; 4) that are guided and refined by routine evaluation, and 5) that are cost-effective (e.g. Kuh et al., 2005). Retaining students in higher-level courses of the pre-determined nursing curriculum is very beneficial fiscally because once nursing students drop out of a cohort, they cannot be replaced by a beginning student (see Section C for the sustainability plan).

**For other nursing programs:** In Phase 5, [REDACTED] expects to refine its retention model and share it with nursing programs throughout the state which seek to improve their retention and graduation rates. To achieve model status, the implementation must be a robust initiative whose impact is independent of faculty instructor, session leader or student demographics. Therefore, Phase 5 will undertake multiple activities designed to foster greater engagement of faculty; prepare resource material and training to students, staff, interns and volunteers implementing the program; and exhaustively evaluate the mechanisms of program delivery to ensure that at least 75% of all students participate in and benefit maximally from retention activities. The lessons learned, administrative mechanisms created, and materials produced become the basis of the model to be disseminated and possibly adapted to the specific conditions of other institutions. In Year 4, after making mid-course corrections from Mid-Term Evaluation, [REDACTED] will sponsor a *Retention and Success Symposium* for Maryland's nursing schools. This forum will allow [REDACTED] and other schools to showcase their respective models and initiatives, and all participants -- including [REDACTED] -- to become motivated to improve their own programs by incorporating the experience of others.

**For the State of Maryland:** Phase 5 will produce increased graduation rates and thus an annual increase in numbers of qualified bedside nurses.

## **C. SCOPE OF THE PROPOSED INITIATIVE (PLAN OF OPERATION)**

This section describes the day-to-day activities and implementation strategies that underlie the participation objectives and academic goals described above in Section B. Goals and Objectives. The retention activities will first be described, then the implementation strategies that constitute the program delivery, and finally, the Sustainability Plan. Projected new enrollments and completions are show in Appendix 4.

### **1. Retention Activities**

**a. Building on Evidence-Based Practice:** In Phase 2, [REDACTED] introduced three key, evidence-based interventions as the core of its entire retention and success efforts: Tools for Success, SI, and Tutoring. Using lessons learned, these interventions will be expanded and refined in Phase 5. Both Tools and SI sessions are proven strategies based on decades of research in higher education. For

example, Arendale and Martin (1997) conducted an exhaustive meta-analysis of 4,945 studies (total N = 505,738 students). Students attending SI and related support activities have higher course grades and lower rates of failure than students not attending. Several studies have also focused specifically on nursing students. Van Lanen and Lockie (1997) and Loh (1996) confirm the finding of higher course averages and lower failure rates among nursing students attending SI.

**b. Tools for Success:** In 2007, the Phase 2 team tapped [REDACTED]'s own experience and resources, as well as that from the literature on effective first-year college experience courses, and designed "Tools for Success". This pre-entry workshop package is offered prior to the first semester nursing course. At first, "Tools" was offered concurrently with the first class; however, it soon became clear that the lessons learned from Tools needed to be in place *before* the semester started. Tools is a three-part active and collaborative learning workshop series providing guided practice in strategic reading, note-taking, study groups, test preparation and test taking. In addition to the academic component, Tools also zeros in on building life skills focused on self-efficacy, a positive mindset and maintaining a school/family/work/self-care balance. Many [REDACTED] nursing students did not have access to a "Tools" type course when they began college, or have been away from school and from academic routines before entering nursing school. In Phase 5, efforts will be intensified so that the majority ( $\geq 75\%$ ) of entering nursing students participates in this crucial series.

**c. Supplemental Instruction:** SI is a weekly out-of-class study session facilitated by a high-performing student who has already completed the course. The student SI Leader attends the class again and facilitates a structured group study session covering the most difficult content of the prior week. The sessions integrate a variety of study approaches with the actual week's content, thereby providing guided practice in the evidence-based learning methods using relevant content. Students benefit twice by reorganizing and applying the material to gain mastery over specific content while they are also learning effective study approaches that they can apply to other courses and course content. Before Phase 2, SI was available to some sections of nursing prerequisites (e.g., biology and math), but not to courses in the actual nursing program.

**d. Early Alert Tutoring:** This intervention demonstrates how retention activities were piloted and revised during Phase 2. During the first two years, tutoring was provided by professional RN tutors to any student who signed up. Subsequent analysis found that while 75% of failing students took advantage of SI, only 25% signed up to see a tutor. Early Alert Tutoring, piloted during the third year of Phase 2, now restricts access to tutoring to two groups of students *referred* by their instructor: 1) in Fundamentals, students who fail their first quiz, or who fail an exam or who are at-risk of failing an upcoming exam based on low TEAS (Test of Essential Academic Skills) scores; or 2) in Concepts, those students who receive average exam scores of less than 80 in Fundamentals or who fail their first quiz or an exam.

This referral policy supports a rapid and systematic response to exam failures to provide students immediate and specific guidance to enable them to refine, redirect or redouble their effort to improve their performance on the following exam. While Tools and SI sessions are marketed to *all* students and conducted in large groups, tutoring resources are reserved for students whose exam scores indicate the need for more individualized attention. Tutoring is promoted at Tools and SI not as a remedial resource but as a valuable support available to all students in their time of need. Under Phase 5, limited tutoring will be available for courses beyond the second semester only to students with a prior course failure to prevent a second course failure and program dismissal.

**e. Materials:** Each of the interventions requires specific materials for the workshop and SI leaders and tutors. These materials, and training in how to use them, help to reduce variability in delivery of the interventions. Offsetting the high cost of developing the materials at the outset is the capability of re-using them; these materials significantly contribute to sustainability efforts and model development. Materials developed in Phase 2, for Tools, Fundamentals SI, Concepts Preparatory SI sessions, and Concepts faculty-facilitated SI were used by multiple facilitators across both campuses and multiple sections. ██████'s Sustainability Plan, described in section 3 below, incorporates a number of nursing students and graduate interns who will participate on a transitory basis. Their contributions to Phase 5 will necessarily be short-term due to their status as students. Accordingly, well-designed and effective materials, and training in their use, are crucial to the ability of these stakeholders to immediately and competently assume their responsibilities. SI and tutoring materials cover core nursing concepts such as homeostasis, and perfusion, and thus can be easily adapted by other schools.

Resource material to support peer, volunteer, and professional tutors will be developed during Phase 5. In addition, a comprehensive set of SI plans focusing on the building blocks of effective study (i.e., reading and note taking) will be developed for students in the LPN to RN Bridge program (see Section 2.e). The plans will support their successful completion of the bridge course and facilitate their transition into the second-year ADN course sequence. This new set of SI plans will include a video-SI component in which course lectures are videotaped and excerpts replayed during SI sessions to practice note-taking skills and enhance comprehension, following the successful model of the University of Missouri-Kansas City, where video-SI was first developed and evaluated. The materials developed during Phase 2 will be evaluated as part of the mid-term assessment, and areas requiring refinement will be identified and revised during Phase 5.

## **2. Implementation Strategies for Program Delivery**

During Phase 2, ██████ experimented with, measured results, and revised a number of implementation strategies for the delivery of retention activities. Results suggested strongly that variations in implementation of the three retention activities contribute to variations in participation and performance. Efforts in Phase 5 will strive to bring about more standardization in program delivery to improve program results. Seven successful strategies from Phase 2 are described below, including how they will be expanded and/or refined in Phase 5.

**a. Nursing Student Development and Retention Committee (NSDRC):** In response to the need to engage a wide group of nursing program stakeholders in the work and ultimate success of the grant, the NSDRC was created during Phase 2. It is within this central coordinating body that the overall nursing student retention effort is “housed,” managed, and institutionalized for the long-term at ██████. In Phase 5, the NSDRC will continue to evolve as the School of Health Professions’ (SHP) administrative entity: it will meet monthly, vet all retention and success activities, review data, raise and address issues, share best practices, and created policies and standardize strategies. Chaired by the Project Director, the NSDRC includes nursing faculty, directors, tutors, academic advisors, Selective Admissions staff, and the SHP Assistant Dean. The following Case Study from Year 3 of Phase 2 provides an example of the important role the NSDRC plays in overall success and sustainability of retention efforts.

<b>Case Study of NSDR Committee: Development of Early Alert Tutoring Policy</b>
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NSDR Meeting (June 2009): Topic: use of tutoring. Data: although 75% of failing students attend SI, only 25% of failing students consult a tutor. The Committee discussed various policy options and proposed a new tutoring policy whereby faculty are advised to refer students to tutors if they failed an exam or were deemed at-risk by a faculty member.

Outcome: A working group of the committee drafted a formal Early Alert tutoring referral policy. The Committee unanimously approved the policy (August 2009), which was then implemented during the following semester. Two months later, the tutoring policy workgroup conducted a preliminary analysis and found that almost twice the number of failing students than before saw a tutor; moreover, those failing students who saw a tutor markedly improved their performance. The policy was subsequently refined to facilitate additional referrals.

**b. Increase Faculty Engagement:** [REDACTED]'s experience in Phase 2 reflects the well-known phenomenon of the crucial role of Early Adopters in embracing change. Effecting change requires active engagement by front-line staff and administration. Phase 2's three core retention activities were new to the nursing faculty. From the very beginning of Phase 2, the involvement and acceptance by faculty stood out dramatically as a requirement for success. The Early Adopters became key allies who advocated with their peers for the new initiatives. Faculty members who are engaged in the retention activities understand them, develop interest in them, and have a stake in achieving successful results. Currently, 50% (12 members) of the faculty are involved in some manner with student support strategies. Peer experiences and the positive results from Phase 2 will encourage at least six more of the remaining faculty to become involved (at an expected rate of 10% each year). The ultimate goal is to encourage all experienced and new nursing faculty to participate, regardless of which course(s) they teach. All strategies, and the degree of their effectiveness, will be documented.

**c. Training for Tools Facilitators, SI Leaders, Tutors, and Graduate Interns:** Training for all staff includes an overview of the pedagogical theories underlying active and cooperative learning, evidence of their efficacy, and hands-on practice to foster independent adult learners and critical thinkers. A one-day pre-service training was developed for new SI leaders during Phase 2, and during Phase 5 an additional one-day in-service training will be developed and administered for SI leaders, as well as new one-day trainings developed for tutors and Tools facilitators. Together with the supportive resource material, the goal of the training is to ensure uniform efficacy of implementation. Training will be assessed as part of the Mid-Term Evaluation.

**d. Sustain Involvement of [REDACTED] Nursing Students:** Although faculty members can entice some students to participate in retention activities, peers have their own ways of convincing their fellow students that it is in their best interest to take advantage of the services offered. [REDACTED]'s own nursing students, either first or second year, provide an invaluable student perspective and insight. Furthermore, it is more cost-effective to engage students to design and deliver workshop, SI, and tutoring sessions than external professionals. Participation in these activities in a leadership role creates a positive impact on these student-employees themselves. Plans are to sustain the number of nursing students involved in Phase 5, thereby cumulatively providing 2,720 hours annually, equivalent to approximately 1.5 FTE (Full-Time Equivalent).

**e. Include LPN to RN Bridge Class:** In Phase 5, [REDACTED] will offer the retention interventions to the final group who has not participated intensely – i.e., the 16-20 nursing students who annually enroll in the LPN to RN Bridge class. They are particularly high-risk as they are typically returning to

school after many years in the workforce and must jump from the small Bridge class directly to the second year ADN program where retention support activities are not yet available. While taking the Bridge class, these students are, in effect, first-year nursing students and thus are prime candidates for the retention activities. Recent data show that fewer than half of the students in this group complete the Bridge class. Their success, or failure, contributes to ██████'s overall graduation rate.

**f. Develop Graduate Student Partnerships:** The size and complexity of ██████'s Success and Retention program have created a variety of opportunities for graduate students to participate on a non-remunerative basis. Currently, a nursing graduate student from the College of Notre Dame of Maryland is performing a literature review. In addition, ██████ and Towson University (TU) signed a letter of intent on January 22, 2010 (see Appendix 5), to create a practicum placement for a TU graduate nursing student to serve as an SI Supervisor at the beginning of Phase 5. This type of collaboration is expected to grow, up to a maximum of four graduate students per semester. Each student's actual scope of work, and intensity of commitment, will be tailor-made to meet the specific requirements of the graduate program being pursued (see Appendix 6). Potential roles include supervising SI leaders (pedagogy focus), working with the NSDRC (management focus), and data analysis to assess program progress and underlying attribution (research and evaluation focus).

**g. Expand Attendance Strategies:** Throughout Phase 2, ██████ experimented with multiple approaches for attracting students, with some of the most effective examples including: the avid support of the initiative(s) by the faculty; peer-to-peer interactions regarding their own positive experiences; and early exposure to, and information about, available student support resources and services. Representative of this latter approach were regular eye-catching advertisements through various media (posters, face-to-face, phone contacts, WebCT posts) that provide compelling statistics and information regarding the efficacy of the study support to students. These strategies all contributed to raising attendance at the Tools Workshop from 12.8% (fall 2008) to 50% (incoming, spring 2010). All approaches will be refined, augmented and re-evaluated in Phase 5, e.g., to incorporate Tools into the nursing students' mandatory orientation activities, based on the literature that shows that mandatory orientations promote subsequent student success.

### 3. Sustainability Plan

**a. Replicability:** Critical to the development of a replicable model for student retention and success is ██████'s ability to sustain the accomplishments of Phase 2 and to increase these passage and graduation rates to the levels projected for Phase 5. One key contributor to building this model is the NSDRC (described earlier), which serves as a "watchdog" of key stakeholders to oversee all program results and to constantly evaluate mechanisms for refining program delivery. The second strategy to reduce program variability and increase program performance is to intensify training efforts among Tools and SI leaders and tutors to provide *more consistency* in the sessions that they lead. These refinements and others will continue in Phase 5 to produce a more homogenous environment for promoting Student Success Strategies in *all* eligible sections on *both* campuses for *both* semesters of Year 1 in nursing.

#### b. Strategies to Promote Sustainability

##### i. Collaborating with Existing Campus Initiatives

In 2009, ██████ joined 100 other community colleges nationally in the Lumina Foundation-funded "Achieving the Dream" (ATD) initiative to close the achievement and attainment gap among students. At ██████, the ATD initiative is bringing to scale four evidence-based components: 1) instituting a mandatory freshman orientation course for all first time students; 2) implementing a

comprehensive advising system; 3) refining and extending an existing initiative to close the achievement gap; and 4) developing accelerated pathways to complete remedial courses. Aspiring nursing students at [REDACTED] will benefit from participating in these ATD activities *before* they are ready to apply for entry into the nursing program itself. Once they are in the program, Phase 5's specific initiatives lay the foundation for program success and graduation.

The goals for Phase 5 directly reflect the focus of two other institutional initiatives: 1) the draft [REDACTED] Strategic Plan for FY11-13 now includes Student Success explicitly as one of its six Values; and 2) [REDACTED]'s preparation for renewed accreditation by the Middle States Commission on Higher Education highlights student success as a special emphasis within its comprehensive review.

#### ii. **Nursing Student Development and Retention Committee**

This administrative entity, described in Section C.2.A, has been conceived and designed for the long-term. The majority of members are not project funded and participate with the full endorsement of their respective departments in recognition of the importance of improving retention and graduation rates for nursing students. The next step is to integrate NSDR Committee membership, including roles and responsibilities, into relevant position descriptions.

#### iii. **Expanding Current and New Innovative In-Kind Resources**

- **Faculty Volunteers:** Faculty members serve as SI leaders, tutors, NSDR Committee members and program advocates. Since they are already on staff, increasing faculty involvement improves cost-effectiveness. Faculty and staff may receive both “[REDACTED] service” credit (for non-classroom activities) as well as recognition for their involvement in these initiatives, thus providing an additional incentive. In light of the achievements of Phase 2, more faculty members are expected to become involved in Phase 5. The job descriptions of faculty members who teach first-year nursing courses will be revised to integrate their critical roles and responsibilities for retention and success interventions, e.g., referring students for tutoring; advertizing and promoting study support directly in the classroom.
- **Diversifying Funding Sources for Student Employees:** Student employees are already well-integrated into the day-to-day implementation of the nursing program's retention and success activities (SI, Tools, tutoring, NSDR). Efforts during Phase 5 will focus on seeking additional sources of funding to attract and sustain nursing students qualified to contribute to the Retention and Success Program.
- **Re-usable Resources Produced in Phases 2 and 5:** Materials developed in Phase 2 and Phase 5 represent a valuable component of replicability and sustainability, as they can be used from semester to semester and also shared with other schools.
- **Graduate interns:** In addition to [REDACTED]'s partnership with Towson University established to offer graduate intern positions, other partnerships with local graduate programs (nursing, education, administration, public policy) will be explored to invite graduate students to serve as non-funded research assistants, SI Supervisors, and as NSDR Committee members.
- **Alumni volunteers:** Several recent alumni who are interested in retention and success will volunteer to serve as tutors or mentors during Phase 5.

**c. Financial Sustainability:** Cost-effectiveness is an essential requirement for developing and sustaining a Retention and Success Model. External support from MHEC enabled [REDACTED] to launch Phase 2, as the College leveraged its own resources via: 1) Perkins funding to support student SI leaders and SHP Case Managers; 2) SHP funding for partial salary support of the SI Supervisor; and 3) [REDACTED] salary support for non-project NSRDC members and for faculty SI leaders. [REDACTED] recognizes its responsibility to maintain and even increase levels of support for Phase 5 and therefore will continue to leverage these three significant sources and pursue the strategies described above in section b.

It is reasonable in the current economic climate to anticipate additional cuts in state funding to community colleges. Thus, [REDACTED] expects that it will be extremely difficult to incorporate all of the Retention and Success Model expenses into its on-going budget by the end of Phase 5. One strategy for continuing the work and maintaining the accomplishments is to seek non-MHEC sources of funding to complete [REDACTED]'s own significant contributions.

**d. Disseminate [REDACTED]'s Retention & Success Model to other schools.** [REDACTED] will undertake a variety of activities, on and off campus, to share the Model with others who may be able to adopt and adapt some or all of its components. These events will include, inter alia, the MHEC Annual Grantee Meeting, [REDACTED]'s website, faculty networking, nursing conferences, and perhaps a formal study published in a leading nursing journal. In addition, in Year 4, [REDACTED] will sponsor a *Retention and Success Symposium* for Maryland's nursing schools which will provide a forum for [REDACTED] and other schools to showcase their respective models and initiatives, and for all participants -- including [REDACTED] -- to benefit from the experience of others to improve their own programs.

## D. MANAGEMENT PLAN

### 1. [REDACTED] Management Capability

[REDACTED]'s responsibility includes the overall administration, financial management, and partnership coordination. [REDACTED] has demonstrated a long-standing capacity to manage grants of all types, from under \$10,000 for local grants to large state and federal grants of approximately \$3,000,000. Federal grants include awards from the U.S. Departments of Education (seven grants totaling \$7,173,637), Labor (\$7,039,820), Health and Human Services (\$750,000) and the National Science Foundation (\$6.4 million). The Office of Finance and Accounting will monitor, disburse, and maintain financial records in accordance with the relevant accounting policies and procedures. [REDACTED]'s compliance with grant rules and regulations is fully detailed in its annual Clifton Gunderson LLP review, "Risk Identification and Significant Controls (RISC) – Part II," which describes the college's systems, security controls, revenue, accounting and reporting procedures pertaining to grant oversight and administration. The College auditors this year found no deficiencies following a rigorous review.

**2. Management Team:** see Appendix 7 for résumés; Appendix 8 for scopes of work.

**a. Nursing Success and Retention Coordinator – Dr. Estelle Young.** Dr. Young, currently serving as Coordinator for Phase 2, will continue to contribute her extensive experience to Phase 5. At that time, supported by another grant, she will oversee all student support activities in nursing (RN and LPN), and several other allied health programs. Dr. Young has direct contact with all incoming nursing students every semester through teaching the "Tools for Success" workshops.

**b. Project Director – Ms. Elizabeth Webster, RNC, MS.** Ms. Webster brings over 25 years' experience in nursing, and seven in project management in nursing and allied health at [REDACTED]. For the past two years, she has worked closely with Dr. Young in implementing retention strategies with

nursing students and in serving as a key member of the NSDR Committee. Reporting to Dr. Young, the Project Director will manage and oversee the day-to-day project operations, implementation, coordination, administration, data collection, analysis and reporting.

**b. Senior Tutor/Resource Developer – Ms. Marissa Gullion.** A nursing student graduate of ██████, Ms. Gullion returned in 2007 with the advent of Phase 2 to coordinate the day-to-day SI implementation for more than 350 new nursing students each year. In Phase 5, Ms. Gullion will serve in two equal capacities: as senior tutor, she will provide structured group tutoring for the highest-need students, e.g., for the LPN Bridge class, and she will develop those materials to be used by all tutors, constituting the third, and final, series of materials needed for the project.

**c. Planning & Research Analyst (½ time).** Phase 2 produced a substantial wealth of longitudinal data on all activities and attendance, course passage and graduation rates. Created and managed by the Project Director, the database and analysis functions now warrant a dedicated position in Phase 5. The Analyst will be responsible for tracking student participation in retention activities and their subsequent academic performance. With these inputs, the Analyst will conduct a broad range of analyses to quantify the factors (and potential significance thereof) contributing to variability in participation and academic outcomes. The Analyst will also model projected impacts and outcomes.

**d. Senior Management Advisor - Dr. Theresa Majewski,** former SHP Dean, will serve as the Senior Management Advisor on a part-time basis. For Phase 2, Dr. Majewski serves as a tutor and advisor for the NSDR Committee. In Phase 5, she will continue tutoring and broaden her focus to include team building, with the goal of increasing and sustaining the buy-in of various stakeholders, especially faculty members, in retention activities.

**e. Evaluation Consultant.** Dr. Alan Nemerofsky will guide the Phase 5 project team and NSRD Committee in evaluating, integrating and interpreting results. Dr. Nemerofsky conducted the initial analysis of nursing program attrition and risk factors that led to the NSP Phase 2 initiative. He will oversee all aspects of the Mid-Term and Final Evaluations. Throughout the project, Dr. Nemerofsky will design and oversee qualitative evaluations to assist with interpreting the quantitative findings.

**f. Administrative Support Assistant (½ time).** The breadth and depth of Phase 5's activities will require a part-time Administrative Support Assistant whose responsibilities will include: creating standardized administrative procedures for implementation activities (e.g., scheduling process for SI sessions); supervising the administrative tasks performed by student tutors; maintaining the project's hard copy files and electronic files on SharePoint; and coordinating payment for student employees.

### **3. Recruitment and Retention**

Every section of this proposal demonstrates ██████'s commitment to increase retention. Effective recruitment and retention strategies are vital to the efficacy of Phase 5 activities as the retention activities are voluntary and conducted primarily by transitory staff (i.e., faculty volunteers, unpaid graduate interns and part-time student employees). Their importance is reflected in the Objectives for increased participation rates and underlying Implementation Strategies (Graphic 1) which are elaborated in Goals and Objectives, Plan of Operations, and Management and Evaluation Plans.

### **4. Day-to-day Implementation of Phase 5 Activities**

Phase 2's results demonstrate that it is critical for retention activities to begin *before* classes start. Thus, for new nursing students, the three Tools workshops are scheduled during the month before

the semester officially begins for Year 1. Similarly, students returning to start Year 2 are provided with six hours of refresher sessions before classes start again. The dates for weekly SI sessions are set prior to the beginning of the semester in conjunction with the faculty who teach the Fundamentals and Concepts courses. Tutoring is scheduled on an as-needed basis, according to the Early Alert criteria. Attendance is recorded at all of these retention activities. Individual and class test scores from each quiz and exam are recorded to follow the relationship of each student's participation in retention activities and subsequent performance on the next quizzes and exams.

This on-going routine will be augmented in Phase 5 by the addition of semi-annual planning workshops for the NSDR Committee. Using a full day, the NSDR will discuss the prior semester's implementation data (e.g., attendance at retention activities) and achievement data (course passage rates; relationship of attendance to passing; graduation rates) and identify needed adjustments to the operations plan. These workshops (January and June) are planned to review data from the prior semester and to plan for coming semester. Workshops will be scheduled the day following ██████'s college-wide forums. Immediately prior to the beginning of each semester, ██████ hosts a nationally recognized expert in the field of student development and achievement. The keynote address will provide a natural backdrop for the following day's meeting of the NSDR Committee.

#### 4. Timeframe for Implementation

Many of Phase 5's activities will occur in a cyclical pattern, according to the academic calendar. Table 3 lists key activities that will take place in all years and designates the parties holding primary responsibility for their implementation and the expected timeframe. Activities specific to Years 1-5 are found in Appendix 9.

**TABLE 3: Timeframe for Project Implementation**

**Acronyms:** Responsibility: MA (Senior Management Advisor), RA (Planning & Research Analyst), NSDRC (Nursing Student Development & Retention Committee), PD (Project Director), STRD (Senior Tutor/Resource Developer)

<b>ALL YEARS</b>		
<b>Routine Phase 5 Activities</b>	<b>Responsibility</b>	<b>Dates Implemented</b>
<b>Retention Activities</b>		
Tools for Success Pre-Entry Workshops	PD, Student Leader	May-August, Dec-January
Supplemental Instruction (SI) for Fundamentals	SI Leader	Fall, Spring
Preparatory SI for Nursing Concepts I	SI Leader	August, January
SI for Nursing Concepts I	Faculty SI Leader	Fall, Spring
Early Alert Tutoring	Alumni, Professional & Peer Tutors, STRD	Fall, Spring, Summer
<b>Implementation Strategies</b>		
NSDRC Meetings	PD	Monthly
NSDRC On-campus retreats	PD	January, June
Conduct discussions to foster faculty engagement	MA	Monthly
Recruit additional Faculty SI Leaders (1 per year; 2 in Year 1)	NSDRC	Spring
Train tutors, SI leaders, Tools Leaders (tutor training starts January of Year 1)	PD, Graduate Intern	January, August
Hire student employees	PD	December, April
SI for LPN (begins fall 2010)	SI Leader	Summer, Fall
Develop new MOU for graduate school partnership	PD	Summer
Recruit up to four Graduate Interns/semester	PD	November, March

Create four promotional posters/fliers	SI Leaders	Fall, Spring
<b>Dissemination</b>		
Share results at MHEC Annual Grantees Conference	PD	June
Update [REDACTED] Website with program resource material	PD	February, July
Submit presentation to nursing conference	PD	June
<b>Ongoing Management and Monitoring</b>		
Supervise Phase 5 staff, students and graduate interns.	PD	Ongoing
Maintain electronic records of program attendance	RA	Ongoing
Analyze association between program attendance & grades	RA	Mid- and end-of-semester

## E. EVALUATION PLAN

**1. Experience from Phase 2:** In Phase 2, the project team, working with the NSRD Committee, carefully monitored retention activities, evaluated subsequent results on participation and performance, made course corrections, and then repeated the cycle. With these critical input data, the underlying hypothesis of Phase 2 could be tested, i.e., *that participation in retention activities would lead to increased passage rates and subsequently to increased graduation rates*. Results from diligent monitoring and evaluation in Phase 2 have directed the design of resources for Phase 5 to yield the highest possible improvements in nursing student retention and graduation rates.

**2. New analyses for Phase 5:** Phase 2's pilot effort included extensive experimentation and course corrections. Results show that variability remains in some aspects of program delivery, i.e., between (or among): 1) faculty (e.g., referrals for tutoring; 2) campuses (e.g., marketing SI; size of SI sessions); and 3) semesters (differences in participation in Tools) which is ultimately affecting academic performance. In Phase 5, the Evaluation Consultant will assist the project team in developing and implementing systematic qualitative and quantitative inquiries to better understand these areas of variability. Results will then allow program corrections and/or new strategies to bring even more consistency into program delivery and outcomes and to enhance replicability.

**3. Operational Definitions and Data Requirements for Phase 5:** All of the data collection tools and table formats for analyzing data will carry over from Phase 2 and will be reviewed by the Evaluation Consultant. These will provide the new Planning and Research Analyst with a solid infrastructure, in breadth and depth, for monitoring Phase 5's activities and evaluating its accomplishments. Operational definitions for calculating the indicators for each goal and objective are presented in Appendix 2.

**4. Management of Project Evaluation:** The Project Director retains the overall responsibility for project monitoring and evaluation. S/he will be assisted by the Planning and Research Analyst on a day-to-day basis, and at other times, by the Evaluation Consultant and NSDR Committee. Data elements needed for monitoring and evaluation will be collected according to procedures developed in Phase 2 (Appendix 10).

**Evaluations:** Two evaluations will be designed and lead by Dr. Nemerofsky and implemented by the project team and NSRD Committee. The mid-term process evaluation, scheduled for the end of Year 2, will focus on implementation, i.e., 1) is implementation following the project design?; 2) participation rates; 3) effects on academic achievement to date, and 4) nature and extent of variability in delivery and outcome measures. A Final Evaluation in Year 5 will assess all project goals and objectives and its cost-effectiveness.