SSHSPH VISION 2020
A STRATEGIC FRAMEWORK FOR CROSS-DISCIPLINARY, TRANSLATIONAL EXCELLENCE IN PUBLIC HEALTH 2015-2020
Executive Summary

Established in October 2011, the Saw Swee Hock School of Public Health (SSHSPH) is at an exciting stage of development. To guide the School’s next stage of growth, we conducted a school-wide strategic review exercise. The main aims of this process were to:

- Better align the School’s educational programmes and research endeavours with its mission, vision, and values
- Increase and foster School-level engagement among faculty and staff
- Address questions of the long-term sustainability of the School’s activities

This Strategic Plan, known as Vision2020, is based on input solicited from a broad range of people including faculty, staff and key external stakeholders. Vision2020 will guide us as we expand the scope and impact of our work and establish ourselves as a key public health academic institution in the region and beyond.

“Turning Discovery into Healthier Communities” remains the School’s Mission and this will drive our vision.

The School’s Vision2020 is:

“The School will be recognised for integrating knowledge across disciplines to develop solutions that will improve the health of populations in Singapore and beyond”.

This vision highlights the School’s focus on cutting across disciplines in public health research and education, in order to translate knowledge into real-world solutions that will improve population health.

Both our Vision2020 and our Mission are underpinned by our three core values of “Altruism, Innovation and Mentorship”.

Aligned with our Vision2020 and mission, the School will work to develop the following three School-level strategies over the next five years:

1. Develop capacity to conduct cross-disciplinary research with a focus on translation

Cross-disciplinary research is issue-driven research which aims to address complex public health problems by incorporating a range of theoretical perspectives without being hampered by the restrictions of traditional disciplinary boundaries. The School believes that this will enable the translation of research findings into practical solutions to society-level public health challenges, and is critical to translating discovery into healthier communities.

2. Expand and enhance educational programmes with a cross-disciplinary focus

The School is committed to training public health professionals who understand the importance of working across disciplines and are focused on translational work, as this will have the greatest impact on improving population health.

3. Develop and strengthen regional partnerships

The School will work to impact the health of populations in Singapore and beyond by strengthening our regional partnerships in both education and research. The School will also build bridges between countries to enhance relationships in the region through collaborative research and education. Through diversification of funding sources to support regional work, and strengthening our links with academic institutions and governments, SSHSPH is committed to turning discovery into healthier communities in our region.

In order to meet our cross-disciplinary strategic goals, the School has refined its organisational and governance structure. Under this new governance structure, each faculty member along with their research staff and graduate students will belong to one of the following three domains:

- Epidemiology (EPID)
- Biostatistics and Modelling (BSTM)
- Health Systems and Behavioural Sciences (HSBS)

The School will also have programmes, which will drive the School’s translational and cross-disciplinary vision across both research and service areas. The School’s centres will focus on developing strategically-driven cross-disciplinary work with a service and practice focus.

As we enter into the School’s next phase of development, the School’s domains, programmes, centres, and administrative offices will develop workplans spanning 2015 to 2020. These workplans will be aligned to the Mission, Vision, and Values as outlined in this document.
**VISION 2020**

The school will be recognised for integrating knowledge across disciplines to develop solutions that will improve the health of populations in Singapore and beyond.

**MISSION**

Turning discovery into healthier communities

**OUR CORE VALUES**

**ALTRUISM**
Unselfish concern for the welfare and well-being of others as a driver of our translational work across disciplines

**INNOVATION**

Generation of inventive, original solutions to public health challenges through cross-disciplinary teamwork and engagement with stakeholders and end-users

**MENTORSHIP**
Motivating and empowering faculty and staff's professional development through guidance, knowledge- and skills-sharing, and shared values

**DEVELOP AND STRENGTHEN REGIONAL PARTNERSHIPS**

**EXPAND & ENHANCE EDUCATIONAL PROGRAMMES WITH A CROSS-DISCIPLINARY FOCUS**

**DEVELOP CAPACITY TO CONDUCT CROSS-DISCIPLINARY RESEARCH WITH A FOCUS ON TRANSLATION**
INTRODUCTION

The Saw Swee Hock School of Public Health (SSHSPH) was established in October 2011. The only School of Public Health in Singapore, SSHSPH is situated within the National University of Singapore (NUS), a comprehensive research university and Singapore’s flagship tertiary institution. SSHSPH is a constituent institution of the National University Health System (NUHS), an academic health system. The other members of NUHS are: National University Hospital (NUH), NUHS Regional Health System (RHS), NUS Yong Loo Lin School of Medicine (YLLSoM), and NUS Faculty of Dentistry.

SSHSPH grew from the Department of Epidemiology and Public Health within YLLSoM. The Department began in 1948 and over the next six decades developed Master’s level programmes in Public Health for medical doctors and undergraduate modules in Public Health for medical students. The Department was also known for its strong epidemiological research, in particular etiologic research in cancer, myopia, and cardiovascular and occupational diseases. In its last decade, the Department gained greater competencies in statistical genomics and nutritional epidemiology.

The School began with the aspiration of moving beyond etiologic research and Public Health training of medical professionals. We recognise that the public health issues confronting us today rise from a complex interplay of biological, behavioural, environmental, social and systems-level factors. To have a greater impact, our etiologic research needs to be expanded and translated into population-level interventions and policies.

Over the last two years, we have crystallised our mission statement as “Turning Discovery into Healthier Communities”. This mission statement has provided a sense of direction and purpose for the School.

In accordance with this mission, the main focus of the last two years was to develop the School’s capacity and capability to translate etiologic research into programmes and policies. This focus has manifested itself in two key areas: faculty growth and governance structure.

Faculty growth has been systematic on two fronts: composition and capability. The School has expanded its faculty numbers from 15 full-time equivalents (FTE) to the current 30 FTE.

The School’s research, teaching, and service capabilities have also expanded with the hiring of new faculty with varied expertise. These faculty include infectious disease epidemiologists, mathematical modellers, social scientists, and health services and health systems researchers.

To facilitate translation of research discoveries into population-level impacts and outcomes, the School organised the faculty members along four domains rather than the traditional departments.

The four domains were:
1. Epidemiology
2. Biostatistics
3. Health Education and Promotion
4. Health Systems and Policy

To emphasise the need to work across disciplines, faculty members were encouraged to belong to a primary and secondary domain. In addition, programmes were developed with the intention to bring all four domains together so as to enhance our ability to link etiologic research with programmes and policies.

This collaborative organisational structure facilitated the School’s public health work but was administratively challenging. The multiple reporting chains for each faculty member proved to be cumbersome, leading to dilution of disciplinary identity and declines in performance accountability.

The School understands that the future growth and development of our academic programmes and research requires long-term sustainability and clear direction. This consideration is especially important in light of a constrained funding environment and the School’s commitment to translating discoveries into public health interventions and policies.

As such, this strategic plan aims to provide a sound, coherent roadmap for achieving specific targets that are in line with the School’s ambitions. We believe that explicitly identifying our vision and strategic directions as well as optimising the School’s organisational framework to ensure sustained growth will facilitate the School’s fulfilment of its mission of “Turning Discovery into Healthier Communities”.

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IN JULY 2013, FOLLOWING A SENIOR MANAGEMENT RETREAT, THE SCHOOL DECIDED TO CONDUCT A STRATEGIC REVIEW TO GATHER FEEDBACK AND INFORMATION IN ORDER TO BETTER ALIGN THE SCHOOL’S EDUCATIONAL PROGRAMMES AND RESEARCH ENDEAVOURS WITH ITS MISSION, VISION, AND VALUES; INCREASING AND FOSTERING SCHOOL-LEVEL ENGAGEMENT AMONG FACULTY AND STAFF; AND ADDRESSING QUESTIONS RELATING TO THE LONG-TERM SUSTAINABILITY OF THE SCHOOL’S ACTIVITIES.

THE STRATEGIC REVIEW PROCESS COMPRISED FOUR PHASES. ACROSS ALL PHASES, ALL SCHOOL FACULTY AND STAFF WERE INVITED TO PARTICIPATE AND OFFER THEIR CONCERNS AND FEEDBACK.

PHASE 1:
ONLINE SWOT ANALYSIS SURVEY

The first phase, which took place from October to December 2013, consisted of online surveys focusing on identifying School-level strengths, weaknesses, opportunities, and threats (SWOT analysis).

Discussion groups were then held to share the findings of the SWOT analysis with the wider school and suggest ways forward. These findings were collated and used to guide and frame further discussion in the second phase of the review process.

PHASE 2:
WORKING GROUP DISCUSSIONS

During the second phase, which took place from January to April 2014, the School embarked on a series of structured working group discussions open to all staff, under five thematic headings: research, education, non-academic staff matters, academic staff matters, and research staff matters.

Led by key faculty members including the Vice-Deans of Education and Research, the working groups were driven by an iterative, ground-up approach in order to foster inclusive and constructive debate, discussion, and critical evaluation of the SWOT analysis findings.

PHASE 3:
DEVELOPING THE DRAFT CONSULTATION DOCUMENT

The third phase of the review process, which took place from April to May 2014, involved the Vice-Deans (Education; Research; and Academic Affairs and Administration) and the Dean’s Office.

Their primary responsibility was to accumulate and consolidate the ideas and input and develop a draft consultation document. The document was then presented to the School’s Senior Management.

Following this, the Dean presented the draft Vision2020 at the school-level Town Hall Meeting in May 2014.

PHASE 4:
FINALISING THE VISION2020 DOCUMENT

In the final phase, the draft Vision2020 document was sent to internal and external stakeholders for comments from mid-May to mid-July 2014. During this time, the draft was also shared with the School’s International Advisory Panel (IAP).

Both the internal and external stakeholders provided many useful written and verbal feedback. Multiple avenues for feedback were available to internal stakeholders including domain/programme/administrative office meetings; direct feedback to reporting officers; liaising directly with the Dean’s Office, or sending feedback to a designated email account.

All feedback was consolidated and a finalised version of the Vision2020 document was presented to faculty in September. Once consensus was reached, the document was submitted to the IAP for final comments and endorsement.
As the School rises to meet the public health challenges of the future, our research and education must become more solution-oriented and we must expand our focus beyond etiological work, towards the translation of findings into pragmatic, applicable policies and programmes.

These public health solutions will increasingly require contributions from non-medical disciplines. In addition to this, in order to ensure that research is relevant to real life public health issues, there is an increasing need to involve end-users early in the research process.

The involvement of multiple disciplines in public health research, education, and translation has gained increasing traction in the past few decades. However, there have been many confusing terminologies and conflicting philosophies in an attempt to conceptualise this idea.

For the purposes of the School, we draw upon the terminologies and definitions outlined by Stokols, Hall and Vogel in their chapter “Transdisciplinary Public Health: Definitions, Core Characteristics and Strategies for Success”, who describe the involvement of different disciplines as “cross-disciplinary”.

CROSS-DISCIPLINARITY

Cross-disciplinary collaborations can exist in many forms. The three most commonly identified are “multi-disciplinary”, “inter-disciplinary” and “trans-disciplinary”.

1. Multi-disciplinary approach (MD): work that involves two or more disciplines, where members of different disciplines work in separate but interrelated roles to address a shared public health challenge – primarily additive in nature
2. Interdisciplinary approach (ID): work which draws on synthesising perspectives, theories and methods between disciplines to address a public health challenge – primarily collaborative in nature
3. Trans-disciplinary approach (TD): work that spans across and beyond several disciplines in order to develop new frameworks for analysing and addressing public health challenges with the aim of translating research findings into practical solutions to society-level challenges – primarily holistic and integrative in nature.

These three approaches should not be viewed as distinct entities but a continuum with increasing degrees of integration, innovation, and end-user participation. (See Figure 1 below)

TODAY’S PUBLIC HEALTH CHALLENGES ARE CHARACTERISED BY MORE THAN JUST BIOLOGICAL AND BEHAVIOURAL COMPLEXITIES; THEY ARE ALSO INFLUENCED BY HEALTHCARE, SOCIOECONOMIC, AND SOCI CULTURAL SYSTEMS THAT COMPRIS E OF MULTIPLE, NESTED, OVERLAPPING, AND INTERCONNECTED ELEMENTS.

The School's vision is anchored in cross-disciplinarity and translational research and is as follows:

"The School will be recognised for integrating knowledge across disciplines to develop solutions that will improve the health of populations in Singapore and beyond."

Values are central to any organisation; they establish a foundation upon which expectations and trust are built. They also exert great influence on organisational culture and reputation. With the establishment of the School and expansion in staff strength, it is crucial to retain and strengthen our values. We believe that our values will be a key driving force as the School works towards Vision 2020.

Although many values are necessary for the effective functioning of an organisation (e.g. integrity, respect, excellence, teamwork), the School strongly believes the following three are essential for public health:

Altruism

On a philosophical level, the School’s public health work is rooted in unselfish concern for the welfare of others, and a corresponding belief that the right actions are those that produce the greatest benefit to others. The School believes that altruism can be reflected in everyday cross-disciplinary work, driving the individual to move beyond disciplinary silos to sharing of methods, knowledge, and best practices across disciplines to facilitate translation.

Innovation

The School seeks to contribute to the formulation and application of new, improved solutions to meet emerging and existing population health needs in Singapore and the region.

The School’s cross-disciplinarity is the foundation for innovation, as it encourages teamwork, iterative thought processes, re-examination of traditional beliefs and practices, and generation of inventive and original solutions to public health issues.

Mentorship

The School believes in the crucial role of guidance and the sharing of knowledge, skills, and experiences to assist the progress of others. At the individual level, mentoring helps to motivate and empower faculty and staff within the School, thus encouraging professional development.

At the organisational level, mentoring builds a collaborative, communicative School culture and furthers the School’s cross-disciplinary vision through mutual understanding, respect, and appreciation for the different ways of working and diverse spheres of knowledge.

Mentorship offers a platform for learning and growth for both mentee and mentor alike. The School greatly values its younger staff and believes that as older, more experienced staff members imbue the value of mentorship to their mentees, a self-multiplying and perpetual system will evolve.
STRATEGIC DIRECTION

AS A YOUNG SCHOOL, WE RECOGNISE THE NEED TO BE FLEXIBLE AS WELL AS DIRECTED IN OUR APPROACH TO GROWTH. WE THEREFORE ACKNOWLEDGE THAT THIS STRATEGIC PLAN IS A "LIVING DOCUMENT" THAT WILL CHANGE OVER TIME.

By offering a common framework and a flexible guide, we believe that the Vision 2020 plan will foster greater coherence, coordination, and unity across the School.

Simultaneously, Vision 2020 is designed to be adaptable enough over the next five years to leave significant room for individual staff and domains to pursue academic excellence.

In order to achieve our Vision, we have identified three School-level strategies. These highlight our long-term commitment to cross-disciplinary work and set the stage for future planning.

Each strategy is linked to specific initiatives that will steer our progress to 2020. See Appendix for further details on the specific initiatives.

STRATEGY 1:
DEVELOP CAPACITY TO CONDUCT CROSS-DISCIPLINARY RESEARCH, WITH A FOCUS ON TRANSLATION

The need to work across disciplines in addressing complex public health issues is increasingly evident. In order for research to be effectively translated into programmes and policies, there is also the need to engage end-users and stakeholders early in the framing of research questions and study design.

The School must have the right mindset and develop platforms to enable such engagements. This emphasis will allow for translation of research findings into practical solutions to society-level public health challenges, and is critical to translating discovery into healthier communities.

STRATEGY 2:
EXPAND AND ENHANCE EDUCATIONAL PROGRAMMES WITH A CROSS-DISCIPLINARY FOCUS

Future public health professionals and leaders will need to be well-equipped to work across disciplines and appropriately engage end-users and stakeholders. Tomorrow's public health challenges will grow in complexity, and the current disciplinary focus in public health training will not be sufficient to prepare our graduates to face these challenges.

While core disciplinary knowledge and expertise remains foundational to the training of any public health professional, the ability to integrate different disciplines and skills in implementing programmes and policies will give our graduates a headstart to deal with the complexity of future public health challenges.

STRATEGY 3:
DEVELOP AND STRENGTHEN REGIONAL PARTNERSHIPS

Public health challenges in Asia are distinctly different from those of the Western world. Solutions developed elsewhere are often not applicable in Asia due to differences in biological, socio-cultural, political, and economic systems. There are many opportunities for NUS to learn from and share lessons and solutions with the wider region.

In addition, the region’s public health issues are highly inter-connected, especially in the case of communicable diseases. Strong regional partnerships will enable us to build collaborative research and educational programmes that have the potential to impact the health of communities throughout the region.
GOVERNANCE

In order to meet our cross-disciplinary strategic goals and move towards translating research into programmes and policies over the next five years, the School has refined its organisational structure and governance. (See Figure 2 below)

The School recognises that at the institutional level, we operate to a large extent under the purview of NUS and NUHS administrative systems.

The School also values the insights, perspectives, and recommendations of our International Advisory Panel (IAP) on ways forward as we work towards meeting our mission, vision, and strategic goals.

The Dean will be held responsible for the engagement of the IAP and external stakeholders, the coordination of School-level strategic issues, and the establishment of new initiatives.

The School’s Senior Management will comprise the Deanery (Vice-Deans of Research, Education, and Academic Affairs), Domain Leaders (DLs), Programme Leaders (PLs), Centre Directors (CDs), and the heads of the School’s Finance and External Relations offices.

In the areas of faculty promotion, tenure, and new hires, the Dean and Senior Management will be informed and advised by the Faculty Promotion and Tenure Committee (FPTC) and faculty search committees. The Dean and Senior Management will be administratively supported by the Dean’s Office.

The bedrock of the School’s academic, educational, and service mission is our Administrative System, comprising the Academic Affairs Office, Education Office, Research Office, External Relations Office, Human Resources Office, and Finance Office. The administrative system provides the support network for the Vice-Deans, DLs, PLs, and CDs.

Figure 2: SSHSPH Governance Structure

As the School develops in size and capacity, we acknowledge the critical importance of continually and iteratively engaging our stakeholders, namely the Ministry of Health (MOH), Ministry of Education (MOE), Ministry of Defence (MINDEF), and donors.

The School’s three domains are:
1. Epidemiology (EPID): including molecular epidemiology and geospatial epidemiology
2. Biostatistics and Modelling (BSTM): including health informatics and bioinformatics
3. Health Systems and Behavioural Sciences (HSBS): including health economics

Under the new governance structure, each faculty member belongs to a single domain. Research assistants, research associates, research fellows, and graduate research students will all belong to the domain of their PI/supervisors.

Apart from being the School’s foundation for disciplinary excellence, domains will also be channels for communication and mentoring, and offer clear pathways for career development.

The School will be organised according to domains that will pursue disciplinary excellence and provide core disciplinary teaching. At the same time, the domains are encouraged to expand beyond their traditional contexts and incorporate relevant knowledge and skills of related disciplines where necessary.
Next Steps and Review

Over the next 3-6 months, faculty members will actively review and propose programmes that will strategically drive the School’s translational and cross-disciplinary vision.

All domains, programmes, centres, and administrative offices will develop workplans to align with the School Mission, Vision2020, and strategies. These workplans will outline specific action items and deliverables for each domain, programme, centre, or administrative office.

This strategy document will be reviewed in 2017 with input from the School, external stakeholders, and the International Advisory Panel.

Programmes

Distinct from domains, programmes will strategically drive the School’s translational and cross-disciplinary vision across research and service areas.

Programmes identified as strategic for the School will receive seed funding from the School to sustain their operations. Each programme will be required to comprise of at least 3 FTE of faculty from different areas of expertise in order to ensure concerted and consistent pursuit of cross-disciplinarity and translational work.

Programme membership is not restricted to faculty within the School; rather, participation is encouraged from other faculties, schools, and institutions to promote trans-disciplinary and collaborative work.

The decision to start or close a programme will rest with Senior Management. All programme leaders will become members of Senior Management.

Centres

Centres can be programme-centric, discipline-centric or both. Centres may have a stronger practice and/or service component than programmes. Centres will be developed strategically, and can be developed at university-level or school-level.

The decision to establish or close a centre will reside with the Dean, as advised by Senior Management. Centre Directors will become members of Senior Management.

At present, the School has two centres: the Centre for Occupational and Environmental Health Research (CEOHR) and the Centre for Infectious Disease and Epidemiology Research (CIDER).
APPENDIX: SCHOOL STRATEGIES AND RELATED INITIATIVES

STRATEGY 1: DEVELOP CAPACITY TO CONDUCT CROSS-DISCIPLINARY RESEARCH, WITH A FOCUS ON TRANSLATION

INITIATIVES:

1. Develop and establish a translational team to respond to domestic public health needs for rapid turn-around analyses, evaluations, health technology assessments and research-policy/practice ‘think pieces’.
   The establishment of this translational team will also involve an increase in the number of practice-track faculty hires at the School, in order to systematically grow our capacity to respond to local and regional public health challenges with a focus on translational output.
   The School must be able to respond to requests from our key stakeholders and funders. This is critical for our future growth and success.
   As such, this team will serve as a platform that pulls together knowledge and expertise across disciplines to more efficiently respond to service requests.
   This platform aims to enable our faculty to better focus their time and efforts on being productive in their core academic activities.

2. Increase the number of joint appointments: within NUS, NUHS, and other institutions in Singapore and internationally
   As the School is part of a comprehensive university comprising many faculties and schools with expertise across a spectrum of disciplines, the School will work to harness relevant expertise through joint appointments to further its trans-disciplinary research. The same logic will be applied to other institutions both within Singapore and abroad.

3. Identify and develop cross-disciplinary research programmes
   These programmes will drive the School’s trans-disciplinary work that cuts across, integrates, and synergises disciplines. For programmes to be effective, we will require each programme to have at least 3 FTEs.
   Programme membership is not restricted to faculty within the School; rather, participation is encouraged from other faculties, schools, and institutions to promote trans-disciplinary and collaborative work.

STRATEGY 2: EXPAND AND ENHANCE EDUCATIONAL PROGRAMMES WITH A CROSS-DISCIPLINARY FOCUS

INITIATIVES:

1. Identify cross-disciplinary educational opportunities across all education programmes
   Over the next five years, we will make a concerted effort to identify key opportunities to shift current courses or develop new ones that instil the strength of cross-disciplinary thinking.
   We will begin with our flagship course, the MPH, as well as our undergraduate public health courses (i.e. PH minor and GEK modules), and consider similar revisions to future programmes.
   Our core course will remain anchored in the School’s domains as we recognise that it is important for students to simultaneously develop specialised disciplinary knowledge. We recognise this is an iterative and ongoing process.

2. Ensure diversity of high-potential students for our education programmes
   The School acknowledges the importance and the strength of diversity, particularly in the field of public health. In a landscape historically dominated by medically trained professionals, the School will continue to pursue the de-medicalisation of public health by ensuring that fair and accessible opportunities are offered to engage non-medically trained students across various disciplines.
   This effort complements the School’s vision of strengthening trans-disciplinarity in public health. We believe this initiative will benefit both the School (i.e. through alumni and future staff) as well as individual students in their careers and contributions to public health.
STRATEGY 3: DEVELOP AND STRENGTHEN REGIONAL PARTNERSHIPS

INITIATIVES:

1. Expand our regional research and educational programmes
   The School believes it is important to be involved in improving public health in Singapore as well as beyond our borders. We will strive to be an active regional research and education institution that strengthens and builds bridges for collaboration with our neighbours.

2. Identify non-traditional sources of funding for regional work
   Funding for regional work is challenging for a School that is supported by government funds. As we expand our scope of work into the region and deepen our work in cross-disciplinary research and education, we recognise the need to diversify our sources of funding.

3. Strengthen our relationships with regional governments and public health authorities
   The School recognises the importance of building strong academic-governmental links to facilitate the translation of research into programmes and policies. We will simultaneously strengthen our local and international alumni network, which will help build future partnerships with regional public health authorities.
TURNING DISCOVERY INTO HEALTHIER COMMUNITIES