Steps toward implementation (including time table)

## 1 Multi-Year Strategic Plan for the Faculty of Medicine

**The mission** is to educate physicians, nurses, pharmacists, occupational therapists, public health specialists, and scientists from diverse sectors of society, in an integrated way, to become experienced, ethical, proficient, and compassionate health care providers with a fundamental understanding of biomedical, social, and humanities sciences, who are totally dedicated to the care and health of others. They will be the leaders in population health, health economics, health disparities, and health delivery science research to relieve suffering and improve health and wellness for all.

**The Vision**: Medicine in general has been undergoing a revolution in recent years. Except for the diseases themselves, everything else has changed, or is in the process of doing so:

- **Physicians are changing** from doctors who know about a wide spectrum of diseases to physicians who know everything about a few diseases, from the clinical to the genetic and molecular levels.
- **Patients have changed**. There are increasingly more chronic versus acute diseases, more elderly patients, and patients are more involved in treatment.
- There has been a shift towards **community-based versus hospital-based** treatment
- However, the main thrust of this revolution is changes in treatment. There
  has been a transition from one-size-fits-all to prevention and therapy
  tailored to each patient. Precision medicine requires strong translational
  medicine, big data, and the ability to generate predictive algorithms for each
  patient. To implement personalized medicine, innovation and
  entrepreneurship are needed to develop new technologies and drugs.
- In today's and the future's digital, machine learning, and artificial intelligence (AI) era, patients will need the **human touch and compassion** even more.
- Caring for patients is an increasingly **multidisciplinary** task.
- Not only are patients and physicians different, so are the students, as shown by the growing body of evidence-based research on the importance of **changing the paradigms of education** in the health professions.

Our mission is to educate physicians to respond to the changes in medicine outlined above.

## **Cross-Cutting Strategic Goals**

- 1. To promote academic and clinical excellence throughout our faculty
- 2. To enable success through enhanced technology and up-to-date infrastructures
- **3.** To leverage collaboration within the Faculty of Medicine as well as across other faculties at the Hebrew University, both in the Experimental Sciences and the Social Sciences and Humanities
- 4. Extend the local, national, and global impact of our faculty

To address the mission, vision, and strategic goals mentioned above, we have developed the following strategic plan to prepare our students for the changing world of medicine: **Medical Education.** A complete and innovative curriculum was set up for the preclinical years. The "new" curriculum is based on teaching according to systems, whereas the 1<sup>st</sup> year is dedicated to the fundamentals of "From the Atom to the Organism;" the 2<sup>nd</sup> year covers the healthy human body; and the 3<sup>rd</sup> year covers the diseased human body. Longitudinal courses such as medical humanities and elective courses have been woven into the curriculum. These involve training in problemsolving and self-learning, preparing the students to be lifelong learners, and courses on treating people with special needs. Students are introduced to clinical topics as early as the 2<sup>nd</sup> year. In the 3<sup>rd</sup> year, students meet with patients in outpatient clinics in the community and learn how to communicate with them, take their histories, conduct physical exams, and apply basic clinical reasoning.

The complex process of setting up the new curriculum in the pre-clinical years has actually been completed and the first class is already in its 6<sup>th</sup> year. However, the Curriculum Committee continues to address issues that arise during the implementation, and it makes changes as required to adapt to contemporary/modern medicine, such as additional courses in the field of AI and digital medicine.

As part of their syllabus, and as volunteers, our students work in locations throughout Jerusalem and are involved in medical/social projects of first-rate importance supported by the Jerusalem Municipality, the health funds and contributing philanthropists. Recently, we established a student-run clinic inside Hadassah Hospital.

### Our plans for the coming years are:

- 1. To expand the new curriculum to the clinical years, and strengthen the systematic application of all 13 EPA activities in all the clinical departments.
- 2. To transfer some of the clinical coursework to the community in two ways:
  - a. Longitudinal integrated clerkships (LICs) starting in the 2022-2023 academic year.
  - b. Strengthening community coursework in pediatrics. In practice, very few children are hospitalized and most pediatric medicine is administered in the community. The same goes for gynecology (this will also solve the difficult problem of training in clinical fields in these specialties).

#### **Medicine and Research**

The Faculty of Medicine of the Hebrew University of Jerusalem considers the integration of medicine and research to be a vital part of its vision and mission. The education of research physicians, which has been declining in recent years throughout the world, is one of our most important goals. The location of Hadassah Hospital and the Faculty of Medicine's research institutes on the same site enables collaboration between researchers and physicians, and allows our students to be exposed to basic research in medicine from the beginning until the end of their course of study. Research physicians play a major role in translational medicine. We strongly urge and enable our students to obtain a Master's degree or a PhD in the biological sciences, public health, as well as computer and data science.

To enable physicians to continue conducting research after graduation, and in conjunction with the Jerusalem Municipality, we are designing a strategic plan to encourage these graduates to remain in the city and work in one of the hospitals affiliated with the faculty. The directors-general of these hospitals are committed to this process, which includes devoting resources and infrastructure.

The Faculty of Medicine set up the Sagol Track for Computational Medicine. In this program, outstanding students enroll in a dual BSc in Medicine and a BSc in

Computer Sciences. In addition, we have considerably reinforced the computerized digital medicine curriculum in years 1-3 of the pre-clinical studies by adding mandatory as well as elective courses.

In addition, since the ultimate mission of the School of Medicine is to develop modern diagnostic and therapeutic methods, we established a joint track with the School of Business Administration for a Master's degree in Innovation and Entrepreneurship – the BioMed MBA.

In the coming years we will initiate curricula related to bio-convergence and the teaching of new technologies in medicine.

#### **Humanism and Medicine**

To devise a strategic plan to teach compassion, we realized that it is extremely important to teach with compassion. For this reason, we developed the **Portfolio/Mentors Program**. The Portfolio is a collection of the student's work that accompanies the learning process and enables the assessment of learning and professional development throughout the MD program. The Portfolio Program, initiated in 2019, is currently structured in the Moodle LMS (a free, open-source learning management system). It consists of a series of annual courses, selected/required assignments, and self-initiated projects or other assets. Each assignment is mapped according to the 6 roles of the Competent Physician: Professionalism, Communication, Multi-disciplinary Teamwork, Leadership, Advocacy, and Scholarship. For all assignments, students accrue points, with a minimum number of points required for passing the course each year. As the program develops and the point system is validated, it is intended that adequate professional development will carry significant weight in progression decisions.

The Portfolio Program is being developed and implemented throughout the clinical years as well. A key feature in the operation of the Portfolio is a digital "Task Notebook," which provides the assignment management interface between the student and the Faculty of Medicine. Each mentor has 4 students and meets with them individually at least twice a year.

**Palliative/End-of-Life**. Treating a patient at the end of life requires excellent communication skills, as well as knowledge of ethics, multiculturalism, and the treatment of various symptoms. This situation calls for a great deal of compassion. We initiated a multi-year Palliative Care Program in 2018 to train students during the clinical years to cope with the challenges of treating patients with life-threatening illnesses and at the end of their lives. The program is now limited to the 5<sup>th</sup> year. Our plan is to extend the program in a spiral mode to the pre-clinical years as well as to the 4<sup>th</sup> and 6<sup>th</sup> years.

**Integrative Medicine.** Complementary and Integrative Medicine (IM) constitutes a significant therapeutic for the Israeli patient population. About 40% of all adults, a third of all children, and about half of all patients with chronic illnesses and cancer avail themselves of IM treatment. For this reason, training in IM is essential for all medical students. In 2020 we initiated a course in IM that incorporates workshops in acupuncture, naturopathic therapy, and mindfulness.

Caring for patients is increasingly a multidisciplinary task. One of the weaknesses in the training of future physicians at the Faculty of Medicine is education for multidisciplinary work. The days when the doctor was the sole leader of patient care are long gone, and the only way to treat complex patients today is through a well-chosen and well-orchestrated team. We are convinced that the right

way to start this is by choosing selected programs in the pre-clinical and clinical years where medical and nursing students are taught together. This effort was launched with a course in palliative and end-of-life medicine, but requires further evaluation and development.

**Pedagogy and Medical Education.** Not only are patients and physicians different, but so are the students, as shown by the growing body of evidence-based research on the importance of changing paradigms of education in the health professions. The students are different: We are teaching the Z generation in 2022, but in many ways using outdated methods.

Flipped Classroom. The move towards incorporating "flipped classroom" teaching: Although in some courses these innovative pedagogical methods are applied, a greater number of courses will use this approach in the next 3-5 years, when a new building on campus will be completed, along with compatible training of the teachers.

<u>CBME and EPA.</u> The new curriculum promotes and incorporates teaching goals and approaches, such as **CBME** and **EPA**, and a considerable amount of small group learning in laboratories, seminars, and workshops. Crucially, our students are involved in making decisions about changes in their curricula. All the committees that deal with these issues also include students.

**Simulation and virtual reality.** We are in the process of designing a large simulation center in the planned new building that will be equipped with a state-of-the-art infrastructure for virtual reality training.

**Programmatic Assessment (PA).** This process is led by the Assessment Committee and is being discussed and readied for implementation at the Medical School. Note that several related activities are carried out independently of the Committee's work; these include OSCE preparation, mentorship programs combined with the Portfolio, and joint activities with students to develop topics such as the professionalism curriculum.

- Medical students are currently offered 36 courses either as electives or as "cornerstone" courses taught by the staff of the Faculty of Law, Faculty of Humanities, Faculty of Social Sciences, School of Public Health, School of Dentistry, and the School of Social Work and Social Welfare. Based on the interest and success of these courses, we are planning to increase the number so that students can earn dual degrees in these fields.
- The personnel at the Medical Education Center are all members of the Teaching Committee at the Faculty of Medicine and contribute to all decisions related to the teaching of medicine.
- The Medical Education Center works closely, and on a continuous basis, with the Teaching and Learning Center to provide joint courses that address the educational needs of the Medical School and for train-the-trainers programs. The two centers cannot be merged, since the Teaching and Learning Center is a Hebrew University center that provides training and educational support services to the entire University.
- Longitudinally tracking educational outcomes through a formal structured process is primarily dealt with by the CHE and possibly addressed by the Forum of the Deans of Medical Schools in Israel.

# • Significantly reduce contact hours, given that it is still predominantly lecture-based (74%) and contact hour-intensive

#### Response:

We have decided to reduce contact hours, and gradually increase flipped classroom hours at home. These home hours were originally set up during the early phases of the COVID-19 pandemic to comply with government regulations. We intend to go over the content of each thematic block and determine the ratio of flipped classroom hours to contact, small-group hours.

#### • Monitor self-directed learning time of the students

## Response:

The students' self-directed learning time can be monitored by self-reports combined with computer time logs from various programs (site time). We could also randomly sample self-directed learning time, which would help us determine which subjects are too challenging for students to study on their own.

### Conduct deeper competency mapping

#### Response:

We intend to redefine the set of competencies of student conduct and interweave them throughout the program (see Appendix).

# • Elevate assessment to contemporary best practices

#### Response:

We intend to introduce formative assessments in pre-clinical courses and blocks and throughout the clinical exposures. In the pre-clinical years, students already use non-MCQ methods such as project reports, lab reports, and simulations; there will be more formative assessments in the near future. Formative assessments are currently an integral part of the clinical curriculum, and include feedback on written admission reports, patient presentations, and real-life simulations that involve face-to-face student-patient encounters.

#### Introduce advanced simulation

#### Response:

Several types of simulations are currently being implemented. Clinical simulations of torsos and simulation technologies are used in the 3<sup>rd</sup> year as preparation for the clerkship period. These include demonstration and practice of breast exams, rectal exams, and POCUS. A small simulation center opened in Hall 1 of the Magid Building during the current academic year (2021-2022). The center has 5 exam beds, an ultrasound simulator, 5 POCUSes, 10 stethoscopes (for heartbeat and breathing monitoring), as well as partial task simulators, including arms, breasts, male and female genitalia, abdomens, and rectums. The simulation center is currently open one evening a week for students' self-training, and all available slots for the next two months have been booked. A 4th-year medical student who has been trained to operate the simulation equipment is in charge of our simulation center and provides instruction to the students. Additional evenings will be scheduled according to demand. A new state-of-the-art simulation center has been planned for the new Computational Medicine Building and should be completed within the next few years. In compliance with the IQARC's suggestion (Recommendation #39), we plan to set up a working group to assess the requirements to provide medical student simulation training programs in the new simulation center, including high-level staffing, equipment, developing educational programs, and verifying that the center is optimally utilized.

# Enhance student portfolios

# Response:

The IQARC critique during our site visit made us realize that our portfolios need serious improvement. Currently, our portfolios are a merely a series of tasks that basically constitute the stepping stones in professional development for each year, but are not related to each other and cannot truly support professional development. We plan to integrate longitudinal reviews of the portfolio tasks as part of the semi-annual self-evaluation forms the students are already required to submit prior to meeting with their mentors. In this way, the students will review the tasks they have submitted in their portfolios between meetings with their mentors, who can then assess their strengths and weaknesses. They will submit a narrative report that they will then discuss with their mentors, and will establish a joint plan for remedying the weaknesses.

# • Ensure consistency and "equivalency of training" for all disciplines at all sites Response:

Equivalency of training obviously must occur during clinical clerkships within the affiliated hospitals. The key individuals responsible for equivalency are the circle heads. For example, the head of the pediatrics circle shares mutual aims, learning outcomes, and syllabi with all the affiliated pediatric departments, and monitors milestones throughout the clerkship period if discussions with students and instructors reveal imbalances; he or she then takes steps to correct them. We are in the process of introducing digital "task notebooks" using the Moodle platform for all clinical clerkships. The task notebooks are identical for all departments teaching the same discipline. We already have task notebooks for all the mandatory clerkships in the 4<sup>th</sup> year, and we have begun working on the 5<sup>th</sup>-year clerkships, all of which are mandatory. The next step will be to make task notebooks required for elective clerkships. In addition to ensuring consistency, these task notebooks can be harnessed to implement CBME teaching in our Medical School.

# • Deal with the especially high student-to-faculty ratios for certain clinical rotations Response:

The high student-to-faculty ratios in some of our clinical rotations are the result of the uneven affiliation of teaching hospitals (and thus of teaching beds)/training sites relative to the number of students in Israel's medical schools. This problem needs to be dealt with on the national level. We have tried to find local solutions as well. In the 4<sup>th</sup> year, we have increased the number of annual rotations in Pediatrics and Surgery from 3 to 4, thus increasing the number of student groups from 12 to 16. This has allowed us to reduce the number of students per clerkship from 15-16 to about 11, but at the cost of increasing the teaching weeks per department. In some of the clerkships, the students are assigned to sections in the department (e.g., in Pediatrics, students are assigned to the in-patient ward, out-patient clinics, newborns, and ER), thus effectively reducing the number of students per group. High student-to-faculty ratios were still found in the Pediatrics department. We intend to cope with the small number of clinical fields by recruiting recently retired physicians to teach, and by integrating family medicine to broaden clinical exposures in pediatrics.

(Please also see the responses to comments #23 and #24.)

- Significantly reduce contact hours, given that it is still predominantly lecture-based (74%) and contact hour-intensive
- Monitor self-directed learning time of the students

Response:

As part of an overall re-evaluation of teaching methods, we are considering the implementation of:

- 1. Team-based learning (as originally developed by L. Michaelsen)
- 2. Reverse-class teaching: a combination of short, pre-recorded interactive lectures; individual study (main component); case-based, in-class discussions of this material; and an on-line forum for questions. This program is currently under development.
- Conduct deeper competency mapping

## Elevate assessment to contemporary best practices

### Response:

A special task force has been set up by the Dean of the Medical School to map competencies specifically for 4<sup>th</sup>- and 5<sup>th</sup>-year medical students (based on the CanMEDs framework). These will include core competencies (applicable to all clerkships) and those specific to each clerkship (see Appendix).

The task force is also authorized to suggest the best applicable strategy (based on local faculty and clinical clerkship structures) to assess the attainment of these competencies, both as a formative (feedback-based) and as a summative (pass-fail) assessment.

## Promote more horizontal and vertical integration

#### Response:

During the pre-clinical years, we are committed to maintaining both vertical integration (spiral structure of the curriculum) and horizontal integration (basic formative ideas presented throughout various courses). During the clinical years, we pay special attention to maintaining an integrative approach through competency-based teaching and formative assessment.

# • Develop programming directed towards clinical reasoning Response:

A special program dedicated to clinical reasoning has been developed by Prof. Mordechai Muszkat (Director of Internal Medicine on Mt. Scopus) and will be implemented next year as part of the clerkship in Internal Medicine (See attached Appendix-CBME Mapping in the Medical School Curriculum).

### 7 We propose:

- 1. Joint planning with Student, Curriculum and Teaching Committees. As outlined in response to Recommendation #6, we have created a special task force to map the competencies for clinical clerkships in the 4<sup>th</sup> and 5<sup>th</sup> years (based on CanMEDs framework), and develop a feedback-based assessment program. The task force has been instructed by the Dean to complete its work by the end of July 2022.
- 2. Advancing the implementation of the Assessment Strategy and Policy Frameworks developed by the Assessment Committee. The task force will base its work on these documents.
- 3. Advancing the current blueprinting project (Assessment Committee) involving the provision of templates adapted to various disciplines.

# 8 This recommendation is complex and cannot be dealt with as a whole. We break it down as follows:

- 1. Plan implementation of proposed strategy and policies with increased emphasis on formative feedback and narrative assessments at both the course/unit and year levels. The latter will need further work toward developing the Portfolio/Mentor Program (see Recommendations #11 and #18).
- 2. Coordinate with the Student, Curriculum, and Teaching Committees regarding
  - a. WBA introduction (see Recommendation #19)
  - b. Inclusion of competencies such as professionalism in clinical assessment (integration with Portfolio/Mentor Program)
- 3. Elaborate a plan for QA of exam items (prior to administration) and integration with existing post-test psychometric analysis. This will necessitate a significant reduction in the number of summative exams required in Recommendation #14).
- 4. Advance the integration of a dashboard (in the Portfolio Platform) that will enable the required tracking and accessibility between clerkships and other learning events (see also Recommendation #11). Our developing digital assessment system will allow for

- the longitudinal assessment of competencies throughout the clinical clerkships and the pre-clerkship period.
- 5. Continued development of student digital clinical evaluation forms for each clerkship, alongside the digital task notebook. These will comply with several of the above recommendations. The clinical evaluation forms are currently based on a checklist, but the Faculty is encouraged to provide narrative feedback, in addition to or instead of the checklist. This will also be integrated into the portfolio of the clinical years, which will begin in the next academic year (2022-2023). We are developing the portfolio on a year-by-year basis, and are currently in the 3<sup>rd</sup> year. As part of the self-evaluation forms mentioned in the response to Recommendation #6, the clinical evaluation forms will be reviewed by the students in preparation for their semi-annual meetings with their mentors, and will be discussed with the mentor during the meeting (please see response to Recommendation #6).
- 6. Our intention is that all the competencies throughout the clinical clerkships be assessed by feedback-based (narrative) assessment (in addition to summative pass-fail assessment). This assessment is necessarily work place-based (completed by clinical staff based on direct observation).
- 7. We intend to integrate a significant increase in reflective writing assignments (requiring narrative feedback). This will be implemented through the Mentoring Portfolio Program.
- The Dean, together with the Head of the Clinical Teaching Committee, already conducts annual visits to the major affiliated sites; this involves meetings with students and faculty and acting immediately on issues that need remediation. We intend to prepare a timetable to systematically meet at each site at a defined frequency, according to its size and the number of students it trains.

At the conclusion of each clerkship, the students fill in a survey that rates their satisfaction with each instructor's teaching and the clerkship as a whole. At the end of the year, the clerkships are rated according to student satisfaction, and the top clerkships are publicized. Those on the bottom of the list are summoned to the Dean, and remediation steps are agreed upon. With the mandatory addition of the digital task notebooks and student clinical evaluation forms, more data will be available to assess the performance of each clerkship.

# • Introduce "train-the-trainers" faculty development at all sites Response:

Our Medical Education Center is in the process of developing an extensive "train-the-trainers" program, which will include the following components:

- 1. A training program for pre-clinical staff aimed at providing skills for the implementation of effective team-based and case-based learning (implementation by October 2024).
- 2. A training program for junior clinical staff, aimed at providing skills for narrative assessment of competencies and successful tutoring (implementation by November 2023).
- 3. Training workshops for participants in the Mentoring-Portfolio Program aimed at providing skills for supplying formative feedback on reflective writing assignments and assessing professional development (implementation by November 2023).
- 4. Training workshops for senior clinical staff aimed at creating a common competency-based educational language (date of implementation to be decided).
- 5. Long-term training program in Medical Education aimed at creating a community of scientists and clinicians with a special interest in medical education (in cooperation with the Mandel Institute for Educational Leadership). Implementation of this program requires significant financial and professional resources and should be promoted jointly by the Deans of the Medical Faculties as a high-priority national effort (suggested start of implementation, November 2022).

All course syllabi are available in the Hebrew University Yearbook ("Shnaton") website <a href="https://shnaton.huji.ac.il/index.php#master">https://shnaton.huji.ac.il/index.php#master</a>

The syllabi of all pre-clinical courses and clinical clerkships are in Hebrew and in English, according to the Bologna format. Each syllabus includes course/module aims; learning outcomes; attendance requirements; teaching arrangements and method of instruction; course/module content; required reading; course/module evaluation; and additional information. The Internal Medicine syllabus for the 4<sup>th</sup>-year clerkship is provided in the Appendix. We plan to review all syllabi to ensure that they comply with our competency framework and update them where needed. In addition, the digitization we are currently implementing in clinical teaching (made possible thanks to the responsiveness and excellent collaboration with the University's Teaching and Learning Unit), will allow the syllabi to be updated in a single location and be available simultaneously in Moodle and the Shnaton. We will need to define the mode of access to assessment criteria in the "one-stop information" resource.

11 Continue development of the Portfolio/Mentor Program to enable the required monitoring of longitudinal competency development, procedures and dashboard (see related Recommendations #8.4 and #17).

This program is aimed at promoting and monitoring the longitudinal professional development of students throughout their medical school curriculum under the supervision of dedicated staff members. The program is constantly evolving, and is one of the components of our Faculty Development Program (see response to Recommendation #9).

- Advance the blueprinting project (Assessment Committee) through the provision of templates adapted to different disciplines. See also the response to Recommendation #8.
- Advance implementation of the Assessment Strategy and Policy Frameworks developed by the Assessment Committee.

We embrace the idea that assessment should be a part of the learning process ("assessment for learning"), and have already implemented digital techniques that enable greater reliance on formative (narrative) assessment in the clinical years. In the pre-clinical years, we will assign a much larger role to reflective writing with its associated formative feedback as part of our Mentoring-Portfolio Program that will be extended to the clinical years, to create continuity and longitudinal assessment of professional development.

- Prepare a master plan for implementation, according to the 2018 Assessment Strategy and previous "road map" presentations.
- 15 1. Plan appropriate faculty development to provide meaningful feedback for the clinical instructional staff from the 2<sup>nd</sup> to 6<sup>th</sup> years.
  - 2. Advance implementation of the Assessment Strategy and Policy Frameworks developed by the Assessment Committee.
  - 3. Advance the blueprinting project involving the provision of templates adapted to various disciplines.
  - 4. Decide whether the proposed Portfolio dashboard can meet this recommendation.
- 16 1. Plan integration with Portfolio Platform (dashboard, mentoring/coaching). See also Recommendation #8.1.
  - 2. As alluded to in the response to Recommendation #8, the clinical evaluation forms are currently based on a checklist, but the faculty is encouraged to provide narrative feedback in addition to, or in lieu of, the checklist. We aim to gradually shift exclusively to narrative assessment, related to the competency framework.

Advance the integration of a dashboard (in the Portfolio Platform) that will enable the required tracking and accessibility between clerkships and other learning events (see also Recommendations #8.4 and #11). Please see response to Recommendation #8. Continue development of the Portfolio/Mentor Program to monitor students' academic and professional growth and enhance reflective and self-regulated learning. See also the response to Recommendations #11 and #13. Collaborate with the Student, Medical Education and Clinical Teaching Committee: 19 1. Survey evidence on modern WBA methods. 2. Evaluate current methods that may need to be replaced. 3. Select methods appropriate to our capabilities and organizational culture. See also Recommendation #8.2. This will be in the job description of the proposed Assessment Unit. 20 Our Faculty Development Program includes an extensive training program in medical education that will be offered to pre-clinical and clinical faculty across sites and specialties (see response to Recommendation #9). See response to Recommendation #9. We will conduct a comprehensive assessment of current practices, with detailed specialty-level clinical rotation capacity mapping. However, as mentioned in response to Recommendation #6, this issue should be addressed on the national level, due to the uneven affiliation of teaching hospitals/training sites to Israel's medical schools. All solutions that can reduce the number of students per clinical unit without actually increasing the number of training sites (e.g., teaching in morning/evening shifts or extending instruction weeks), will in fact increase the faculty teaching load, which is already stretched to its limit (please also see responses to Recommendations #6 and #23). The Israeli custom is that faculty members are not compensated for extra hours of teaching. As mentioned in the response to Recommendation #6, we have failed so far in our attempts to integrate community medicine into clerkships with high student-faculty ratios in order to reduce the number of students per group. This will only be possible if appropriate funds are allocated to hire extra faculty – in both in-patient and out-patient settings – who could either share the work involved in teaching, the clinical work (which would free others to dedicate their time to teaching), or both. 25 Please see response to Recommendation #6. We agree that preparedness for/transition to residency and practice should be done on a national level. The Ministry of Health is funding a mandatory 4-day preparatory internship workshop. The workshop is held at the Israel Medical Simulation Center (MSR) - please see https://eng.msr.org.il/interns However, a comprehensive internship curriculum would better prepare medical school graduates for the transition from medical school to internship and from internship to residency. The need for this type of curriculum takes on even more importance given the plan to change the format of the final year of medical school (6<sup>th</sup> year in our program) to an internship format, which will obviate the need for a full internship and allow medical school graduates to move directly to residency.

We have adopted a number of steps as suggested with respect to remediation, and a more programmatic approach will be worked out and implemented.

This is the current situation:

- Students from underprivileged backgrounds (re'uyim l'kidum) who have been accepted are provided with close guidance from the beginning of their enrollment. Their achievements are tracked by the Vice-Dean for Teaching and Education, who holds frequent meetings with them to help them deal with curriculum problems or any other issues.
- In addition, we monitor students' achievements throughout their programs and meet with those who seem to be struggling to define their needs, including coaching and financial, emotional or other issues.
- Note that all students have mentors who regularly meet with the students in person. The mentors often advise them and make sure that problems are handled or direct them to the Dean and/or the Vice-Dean for Teaching and Education for further problem-solving.
- "Tzameret," the military track, has a remediation mechanism that provides students with academic, physiological, and financial support.
- The Students' Promotion Committee ("Va'adat Kidum") that deals with students who are either failing academically or have health or emotional problems, works to find solutions to assist these students. With respect to the Committee's criticism of students who must "retake or repeat the same experiences," these students repeat their clinical department requirements in a different department/hospital. They have personal physician mentors who ensure that they absorb the material and advance academically. An individual report is sent to the Dean, who closely monitors the students' progress.
- 29 Mandatory courses on student well-being are currently being offered, and other courses are being planned. The current courses include
  - Physical Activity and Better Health (#96122), which covers the importance of physical activity in disease prevention and treatment, teaches the fundamental components of physical fitness, the principles of "exercise prescription" and inculcates the basic principles of healthy nutrition and its relation to health. Although the main purpose of the course is to allow the students to promote a healthy lifestyle in their patients, the students learn to apply these principles to themselves as well.
  - Health and Gender Medical and Social Aspects of Women's Health (#96351).
  - Compassion in Clinical Medicine (#96331) teaches students the art of "mindfulness." The aims of this course are to enhance caretaker-patient communication, to enable an in-depth presence on the part of the caretaker in medical interactions, to increase empathy, reduce burnout, and enhance meditation skills.
  - "Medical Humanities"-"Adam and Refuah" (96119).
  - One of the mandatory modules in the context of mental well-being provided to 2<sup>nd</sup>-year students is the Anatomy Dissection Preparation Workshop. This is a one-time mandatory session for all students in the 2<sup>nd</sup> year, given by mentors from the field of mental health, designed to help the students deal with the experience of autopsy as part of the study of human anatomy.
  - An elective workshop to help handle exam anxiety designed for pre-clinical students (from all years) prior to the exams.
  - As part of the Introduction to Clinical Medicine, Part B (#96402), a mandatory course offered at the beginning of the 4<sup>th</sup> year, a 3-day Integrative Medicine module centers on student well-being and teaches stress-reduction techniques.
  - Self-care is also discussed in small group sessions in the Palliative Care and End-of-Life Treatment course (#96502) in the introduction to the 5<sup>th</sup> year.

• The Healer's Art elective course (#96707), offered throughout the clinical years, is aimed at increasing satisfaction and decreasing burnout during medical school and the future physicians' medical careers. The issue of diversifying admitted student demographics, including minority groups and those from underprivileged backgrounds is an integral part of the framework of the CHE. Programs need to be established at the national level, starting at the high school level to enable these students to be accepted to medical school. In addition, programs need to be designed to support students during the course of their academic careers in medical school. 31 The University's method of dealing with conflict-of-interest issues is highly professional and addresses all issues that arise at all levels. Nevertheless, based on the Committee's recommendation, a dedicated committee at the Medical School will be formed. Both the University's Administration and the School of Dentistry would like to separate the Dental Students' medical education trajectory from the Medical School's. Accordingly, a Joint Committee on the Dentistry Curriculum has been set up and tasked with determining how the Faculty of Medicine can best teach dental students. An appeal to allocate extra funds to enable more protected time for pre-clerkship course 33 directors and clerkship directors will be made to the University's Administration. This recommendation will be addressed as a part of our faculty development program (see response to Recommendation #9). Please see our response to Recommendation #33. 35 The drop-off in student satisfaction with facilities and resources when the students transition to their clinical training years may be attributed to the fact that the students are placed in more than four different hospitals, which are independent institutions that are not under the auspices of the Hebrew University. The Administration of the HUFMO will approach all these clinical locations to devise a program that will ensure greater student satisfaction. The Dean, in conjunction with medical students during their clinical training, has recently initiated several approaches to deal with issues concerning their MD theses. These include: - Evenings devoted to presenting potential mentors and subjects for MD research and guidelines for writing a thesis and its scope. An overview of the research processes is presented at these meetings. - Selected MD theses will be presented, accompanied by discussions on the research process behind their work. - The development of an online course that will focus on scientific research methods and statistics for data analysis that will be useful for students and provide them with practical skills. - Time for research and writing the MD thesis will now be incorporated into the clinical years. We believe that this was misread. We did not decide, and we do not have a student in charge of anonymous complaints lodged against faculty members and students. The review of the DCI that we submitted makes no mention of this type of procedure. We are in the process of planning a state-of-the-art simulation center, and will take these recommendations into account. We aim to hire top-notch staff and management. We believe that this recommendation stems from the fact that we did not sufficiently emphasize the current virtual reality and other interactive screen-based technology learning tools available in the DCI. Currently, anatomy courses combine human dissection labs with interactive screen-based learning software. The students have institutional authorization to access Complete Anatomy 22, which includes interactive 3D models with imaging modules and virtual reality. This is used constantly in the lab (which is equipped with a touch-screen computer over each surgical station), in classes, and in tutoring and self-learning. The instructors guide the students on how to use the software effectively. In addition, there are numerous other 3D models and interactive software programs available in the Medical Library. We also engage in the intensive use of interactive anatomy atlases, such as ADAM, Netter Color Atlas, Acland's Video Atlas, and the Digital Anatomist. New, sophisticated learning tools are made available regularly.

41 Starting in the next academic year, we are planning to implement a joint IPE program for medicine, nursing, and pharmacy students based on IPEC competency domains of team/teamwork, communication, values and ethics, and roles and responsibilities. Learning will take place through simulation activities in small groups of students facilitated by multi-professional teams within the clinical wards. In the future we will expand the program and draw on other successful national and international programs. A team, under the auspices of the Medical Education Unit, has been set up for this purpose.

As of the next academic year (2022-2023), we plan to start an elective tandem course in Arabic and Hebrew for 5<sup>th</sup>-year medical students and 3<sup>rd</sup>- and 4<sup>th</sup>-year nursing students. Since most medical students are native Hebrew speakers, while most nursing students are native Arabic speakers, this course will teach Arabic to medical students and Hebrew to nursing students in the medical context. The course will be held on alternating weeks in the class and in the inpatient departments on the Ein Kerem campus. The students will work in pairs of medical and nursing students and will practice history-taking, physical exams, health promotion, etc., in actual clinical environments. In additional to the IPE, this course will promote cultural competence.

42 Our preparations to implement a longitudinally integrated curriculum (LIC) framework in the 2022-2023 academic year are in full gear. We plan to offer the program to 4-12 students (2-6 pairs). Each pair will be assigned to a specific family medicine physician, will accompany 40-50 patients to all their medical appointments, and follow their progress. Candidates for the program will be selected according to their academic achievements and will undergo personal interviews to verify their seriousness and ability to function as independent learners. The LIC will last for approximately 6 months and will be conducted in the 6<sup>th</sup> year of medical school. LIC students will only be required to attend two 1-week courses with their classmates (Infectious Diseases and Trauma), and will also be allowed to select 1-2 two-week electives if they wish to do so. During 4 of the 5-weekdays they will either see patients in the family medicine clinic or accompany their patients to their clinical appointments. Each Wednesday they will present their patients to 2 or 3 senior mentors (Prof. Arie Ben Yehuda, Chair of Medicine at Hadassah, Prof. Amnon Lahad, Chair of Family Medicine at the Medical School, and Prof. Shmuel Reis, Former Chair of the Medical Education Center), participate in seminars on various topics, or take part in a Journal Club. All activities will be recorded in a dedicated Moodle-based task notebook that will serve to detect and remedy any possible gaps.

We have already held a meeting with student representatives who have expressed interest and provided us with useful input. A graduate of the Ben-Gurion Medical School LIC pilot, held two years ago, who is currently a family medicine resident, took part in the meeting. In mid-April 2022, we will invite all interested 5<sup>th</sup>-year students to a meeting at which we will explain the program and answer questions. In May 2022 we will hold interviews and select participants for the program, after which we will recruit family physicians, develop the task notebook, and conduct faculty development.

- 43 1. Survey of the current situation:
  - a. Which courses/modules/units incorporate narrative assessments that are accessible or potentially accessible to students in all cohorts?
  - b. Which courses/modules/units do not, and of these, which should include them in the future?
  - 2. Identify obstacles to MD program-wide implementation (institutional and stakeholder-related).
  - 3. Assess the required resources.
- The need for more scholarships for medical school students is one of the Dean's and the University Administration's top priorities. Several steps have already been taken, such as launching funding campaigns to attract donors. In addition, a number of senior physicians engaged in private medical practice have committed to contributing part of their earnings towards scholarships for medical students a wonderful gesture on their part.