



OTAGO MEDICAL SCHOOL
Te Kura Hauora o Ōtākou

A Masterplan for the Otago Medical Curriculum of the Future

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1. Preamble

Medical curricula are always in evolution. This document, prepared in 2011/12 and up-dated in late 2015 by members of the MBChB Curriculum Committee (MCC), sets a vision for the overall direction of our curriculum over the next decade. The committee formally acknowledges the Treaty of Waitangi through its commitment to ensuring Maori health is integrated throughout the curriculum and has a focus on Maori health gains and addressing current health inequities.

We are proud of our current curriculum but always see scope for ongoing improvement. It is envisaged that this document should be regarded as a blueprint for the future. We have used the term Masterplan as this is sometimes used when planning a series of buildings or campus: Just as a campus Masterplan offers an overview to guide development of building plans, we see a need for a similar overview and shared vision of our medical curriculum. This document aims to share our vision and direction in order to lead and guide curriculum development.

Such a plan should allow proactive and coordinated curriculum development. Our key goals remain to educate better doctors through high quality education, effectively and efficiently. However, developments in the next 5-10 years need to consider:

- how best to accommodate the increases we have seen in student numbers to meet workforce needs
- how to respond to the changing patterns of requirements for health care in our community, such as more chronic illness, an ageing population, changing patterns of disease burden (e.g. addiction and obesity) and more self-management
- how to respond to increased health care delivery occurring in the community
- how to respond to changes in vocational and pre-vocational training
- progress in educational approaches to medical education.

This document is built on some assumptions including that:

- students have completed the Health Sciences First Year (HSFY) or, if entering under the Graduate or Alternative Category, have completed any prescribed HSFY papers required to achieve an equivalent foundation
- the rate-limiting step to the quantity and quality of education is supervised clinical placements in years 4-6 (ALM) and infrastructure in years 2-3 (ELM)
- making use of economies of scale and avoiding unnecessary duplication is a good use of resources, including staff time
- health care is provided in a variety of contexts and learning in context improves subsequent retention and application
- learning and professional development are enhanced when students feel a sense of belonging within health care teams, as part of a community of practice
- the role of the doctor is already changing and is likely to change further. These changes will place greater emphasis on the needs for doctors to:
 - work effectively in health care teams, including sometimes taking a leadership role,
 - take more of a quality improvement role
 - increasingly synthesise, evaluate and apply information from a variety of sources, in providing safe care to patients and populations

- doctors require a sound understanding of the scientific (pathophysiological and biopsychosocial) basis of medical practice, a commitment to patient-centred delivery, high order interpersonal and clinical skills, abilities to work well in teams, and high levels of professionalism.

2. Current priorities

In order to place future activities in context, it is important to document the current activities that the MBChB Curriculum Committee has already identified and for which there is already work being undertaken. These activities include

- Mapping learning across the curriculum
- Sharing resources/expertise
- Developing programmatic assessment
- Enhancing ELM & ALM
- Enhancing responsiveness to community needs
- Contributing to selection/admission policies and developments
- Strengthening vertical development of curriculum content areas
- Enhancing staff support
- Enhancing student support

3. Key goals

To provide high quality learning experiences for students to increase their work readiness and provide a sound base for their working lives. To achieve this, the Otago Medical School needs to:

- optimise supervised clinical experiences (sections 7 and 8)
- make the curriculum more responsive, flexible and able to be delivered in a variety of locations (sections 5 and 8)
- increase opportunities for learning in context (sections 7 and 8)
- provide more access to learning in continuing care settings (sections 7 and 8)
- increase opportunities to observe the journey of the patient over time (sections 7 and 8)
- optimise opportunities for independent learning (section 4)
- enhance integration of underpinning sciences through the entire curriculum (sections 4, 5, 7, and 8)
- ensure students can demonstrate clinical reasoning including the ability to scrutinise and synthesise conflicting evidence and apply this to their day-to-day practice (sections 4, 5, 7, and 8)
- increase economies of scale through sharing learning resources (section 5)

4. Approaches to learning

The type of doctor we wish to produce is reflected in the Graduate Outcomes and the stated learning outcomes in the Curriculum Map that in turn should inform the teaching and learning approach taken. This section is not concerned with what is learnt but rather the process of how that learning is acquired. It encompasses the intersection between curriculum needs and staffing needs.

The outcomes from learning are highly influenced by the approaches taken by students, which, in turn, are highly influenced by the way learning is structured and organised. The MB ChB approach to teaching and learning is considered at three distinct levels: the overall 'curriculum', the 'module' (organisational units of delivery and oversight) and specific learning opportunities within 'a session'. The session might be a lecture, eLearning package, ward exposure etc.

4.1. The Curriculum

In respect to teaching and learning the curriculum should be:

- Outcome based - preparing students for practice and continued learning. This is articulated through the Curriculum Map
- Spiraled - giving opportunity to revisit and develop aspects of learning
- Aligned - linking outcomes, learning opportunities and assessment
- Integrative - linking relevant theory, disciplinary perspectives and desired learning outcomes with clinical practice
- Efficient - adopting approaches to education that maximize efficiency of time and energy for both students and staff
- Comprised of a 'core' and 'opportunities for student choice'.

4.2. The Module

A module should:

- Explicitly state clear broad outcomes as defined in the Curriculum Map
- Ensure learning is sequenced – linked to prior and later learning, where necessary
- Align outcomes, learning opportunities and assessment
- Give opportunities to students to:
 - learn in-depth
 - reflect on and engage with feedback in relation to their own and/or team performance
 - self-direct learning
- Adopt and encourage a variety of teaching and learning methods, and contexts of learning
- Seek and support learning environments that are welcoming to students where all learners and teachers are respected and all ideas are valued
- Promote commitment to, and skills in, lifelong independent and self-directed learning
 - Encourage curiosity and inquiry
- Allow opportunity for repeated, deliberate and observed practice
 - Include timely and specific feedback.

4.3. A session

A learning opportunity/session:

- Makes learning expectations clear, these may include loose broad outcomes reflecting the serendipitous nature of clinical practice or specific outcomes in the more controlled learning environments
- Links/applies theory to clinical practice
- Encourages student participation

- Involves dialogue and discussion rather than didactic delivery
- Involves questioning
- Engages the student
- Is learner centred
 - Allow students to identify their own learning needs
 - Accommodates variations in student pace of learning
 - Acknowledges a variety of preferences by students for learning approaches
- Models good clinical and educational practice.

4.4. eLearning

Medicine values person-to-person interactions. These are also valued in the teacher-learner relationship. Those components of learning that do not require a teacher-learner interaction can be more effectively learnt when the learner proceeds at their own pace in their own time; eLearning can help in this aspect.

The optimal use of a tutor is to individualise teaching, check understanding, identify where individual students might be having difficulty and to work with students to help them apply what they have learnt. Tutors are essential to observe skills and behaviours and offer feedback. Tutors also facilitate interactions within group settings. Tutors are role models.

eLearning offers:

Flexibility – the pace varies according to a student’s needs. The time of access can vary.

Integration – material from a variety of courses is brought together without the need to bring the actual teachers together at the same time and place.

Multimedia – a variety of media (text, pictures, videos, sound) can be used

Accessibility – students and staff can access the eLearning from a variety of places and devices

Revisiting – the learning can be revisited at a later date and built upon. Such revisiting can be within the same stage of the course (e.g. to check understanding) or at a later stage of the course (for revision and to be built upon).

Independent learning

Collaborative learning – optimises existing group learning and guided independent learning by reducing demand for formal content delivery during these sessions.

Improves feedback – Allows development of automated feedback. Teachers can also view summaries of areas where students are having difficulty, in order to adapt their teaching.

Uses existing skills - Uses the enhanced (e-based) learning skills the students have developed in their schooling and the HSFY curriculum

Opportunity for Quality Improvement – Analytics can show areas of curriculum poorly understood by class.

Standardisation and sharing of material between schools removes duplication of effort by teachers creating content and facilitates consistency.

Our goal is to use tutors where they are most valuable and valued, and to use eLearning and other methods of independent learning, where a tutor is not essential.

5. Curriculum Map

We have defined key elements of the curriculum by core presentations (CPs; see appendix), core conditions (CCs) and core professional activities (CPAs; see appendix). These, in turn need to be linked to the module(s) where learning opportunities might occur and to learning resources (via Moodle). The aim is for students, teachers and module convenors to be aware of where else in the curriculum their topic is covered and how their teaching and learning contributes to that. Students and teachers should have ready access to learning resources that support learning in each of these curriculum elements. The curriculum key elements should also be explicitly related to the graduate profile and to our assessment blueprint. The role of domain groups in overseeing the content and sequencing of learning will increase.

6. Admission/Selection

Admission into 2nd Year (ELM) is either from the HSFY, Graduate or Alternative category with subcategories in each main category of Maori, Pacific Island and Rural origins for which affirmative action is applied. A limited number of places are available to international students. Currently the HSFY category admits ~70%, and Graduate and Alternative ~30%, of the domestic entrants and, across all categories and sub-categories, ~20% is reserved for those with Rural origins. Selection is based on Grade Point Average (GPA) and Undergraduate Medical Admissions Test (UMAT) for the HSFY and Graduate categories and on academic merit for the Alternative category. The admission and selection policies of the Division of Health Sciences, including MBChB, are currently under review. However the suggested aims of a selection process are to:

- ensure the students come from a breadth of backgrounds and are representative of the communities in which they will practise and to provide good care to the diversity of peoples in New Zealand
- select for qualities in students that are needed in a doctor, especially those that are unlikely to be improved by medical school education.

Selection policies should be clear and easily available to staff and prospective students. The policies should be reviewed based on regular evaluation including how student progression may have been influenced by the selection process.

7. Early Learning in Medicine (ELM)

The purpose of ELM is to:

1. Lay the foundations of science on which medical practice resides and relies, by building on prior learning such as from HSFY, and facilitate this learning by explicitly identifying the clinical relevance and contexts in which this knowledge will be applied in practice.
2. Introduce clinical skills to give context and relevance to the medical sciences and to enable the application of medical sciences to clinical practice.
3. Establish the foundations of understanding the broad social and cultural concepts and contexts of medical practice and systems of healthcare.
4. Establish an appreciation of the patient as a unique person and partner in health care.
5. Begin the students' professional identity formation and understanding of professionalism.
6. Establish habits of life-long learning, including both independent self-directed learning and collaborative learning.
7. Introduce the knowledge and skills of critical thinking and reflection required for clinical practice.

ELM was substantially modified in 2008 and, like all elements of the MB ChB programme, will benefit from a process of continuing evolution based on sound evaluation. Aspects for particular attention include the following:

- ongoing collaboration to facilitate the transition from ELM to Advanced Learning in Medicine (ALM; years 4-6)
- explicit linking of learning activities to the core presentations, core conditions and core professional activities
- promotion of learning in context
- defining the pathophysiological and biopsychosocial approaches to health and illness as mutually compatible and important key themes
- providing opportunities for students to frame their learning by early exposure to the range of contexts and models of health care delivery
- increasing opportunities for student choice in what and how they learn
- promoting depth of learning by asking all students to scrutinise and synthesise conflicting evidence and apply this to specific situations
- laying the foundations for graduates to contribute to quality and safety in health system care, by ensuring an understanding of the individual and systems-based components of safe practice and sources of error.

8. Advanced Learning in Medicine (ALM)

Student learning in ALM is critically dependent on sufficient clinical placements and experiences. Increased student numbers and the desirability of students experiencing a variety of contexts in which health care is delivered have both contributed to students being placed in more dispersed and diverse clinical environments.

Ensuring that all clinical placements meet the needs of the students and provide learning opportunities of a comparable and consistent standard requires definition and clarification of expectations. There also needs to be consideration of the impact of student placements on the clinical environment. To help clarify and define all of these aspects, the concept of **Clinical Learning Environments (CLEs)** is proposed.

CLEs are environments in which students are placed for their learning for different components of the curriculum. The features of CLEs might vary depending on the learning that is needed, but a minimum is likely to include the following:

- clinical experiences for students involving patient care (or aspects of it), where increasing levels of clinical responsibility are possible as appropriate (eg patient safety, acceptability) and as learning progresses
- supervision at the appropriate level by healthcare professionals responsible for patient care
- appropriate role modeling by teachers and doctors and other healthcare professionals and staff
- an environment conducive to learning where there is an understanding of impacts on, and resources required, for student resilience and well-being
- administrative support either on site or readily accessible by phone, email etc
- access to opportunities to learn in several formats:
 - IT and videoconferencing
 - relevant simulation and clinical skills learning resources either on site or accessible as part of an integrated programme of learning
- opportunities and resources to reinforce and further develop relevant medical sciences
- physical space for students to study and to undertake patient consultations including appropriate aspects of care/management
- access to resources related to curriculum core elements
- access to university personnel for support and professional development of staff
- student access to pastoral care and practical supports.

Such CLEs are already recognisable on our main campuses, however, we need to consider how we know the relevant standards are being met and how these can also be provided in any situation where health care is delivered and where students are located.

8.1. Progression and alignment of learning in Years 4-6 (ALM)

The ALM programme has over the years evolved and includes the 3 main campuses at Dunedin, Christchurch and Wellington, the Rural Medicine Immersion Programme and an increasing number of regional placements. To ensure that learning quality is

not compromised, greater coherence within the curriculum and greater sharing of resources will be required.

Two important aspects to be considered when any future changes are being planned are the progression of learning from year 4 to year 6, and the comparability of the opportunities and experiences for students regardless of where they are placed. A review of ALM is pending but for now the proposal in relation to ALM is as follows:

- The transition from ELM to 4th year of ALM is significant for students and likely to be most successfully achieved at the main campuses. 4th year placements should therefore remain predominantly metropolitan (hospital and community based) at the 3 main campuses and focused on establishing the base and platform for subsequent years. Regional, rural and remote placements are then best placed, and potentially able to be expanded, within the 5th year and Trainee Intern year
- All students benefit from experiencing placements outside of the main campuses and metropolitan areas, and this current requirement should remain.
- There should be comparability of learning opportunities and expected outcomes across all campuses where our students learn
 - Alignment and coordinated progression through stages of training for all students will be facilitated by sharing of resources and engagement with the Curriculum Map
 - Attention to the requirements of CLEs as above will be important to ensure all placements, current and new, provide opportunities and experiences sufficient for students to meet expected learning outcomes
- Comparability of assessments across placements at the same stages of training and the common examination at the end-of-year 5th year also ensure all students stay on track to achieve the expected outcomes
- Coordinated progression and comparability (alignment) of student learning does not preclude some variation and flexibility, or require identical modular structures.
- Campuses are encouraged to explore 'campus strengths and specialties' both as contributions to shared core learning and also within the time allocated for students to pursue individual choice in learning
- As well as aiming for comparable core learning for all students the MB ChB programme should encourage opportunities for individual choice and variety in learning using dedicated 'selective' and 'elective' time

The overall goals are that:

- there is explicit linking of learning activities to the core presentations, core conditions and core professional activities
- there are defined core learning outcomes which are common at all campuses. This means there need to be equivalent learning opportunities at each of the campuses
- there are additional campus-specific learning opportunities (over and above core curriculum) which students can consider when selecting their ALM campus of choice.

8.2. Year 6 (ALM)

The key purposes of the Trainee Intern (TI) year, grouped into three area of practice are:

Patient care

- Consolidate, synthesise and apply knowledge of health care and health care systems to a broad range of acute and longer term illnesses and patient presentations
- Recognise and initiate management of the acutely unwell patient.

Teamwork

- Function competently as a member of an inpatient based health care team
- Function competently as a member of an ambulatory patient based health care team.

Professionalism and ongoing learning

- Pursue in greater depth an area of medical practice, medical education or research, of personal interest to the student
- Demonstrate further development of professional attitudes and behaviour
- Engage in continuing professional development.

Any proposed modifications to the TI year overall, or individual placements within it, should keep these key objectives in mind.

In addition MCC is keen to continue efforts to strengthen the continuum of education which stretches past the TI year into the Postgraduate Year 1 (PGY1). Successful transition from TI/student to PGY1 is important for all parties and requires clear articulation and communication of expectations for both the TI year and PGY1. These expectations are likely to change over time in keeping with the evolution of the medical professional roles. It is therefore anticipated that effort will be made to establish more formal mechanisms of ongoing communication so that respective expectations of those responsible for the TI year and those responsible for PGY1 are communicated and understood. Other developments that smooth the transition between TI year and PGY1 should be explored and are encouraged where appropriate.

9. Assessment of Students

There are three important aims in ongoing development for assessment: ensuring that the MB ChB programme of assessment is appropriate and meets necessary standards for the purposes intended; ensuring alignment of the MB ChB programme of assessment with the Curriculum Map; and identifying areas for research and quality improvement.

Programmatic assessment refers to a deliberately constructed and organised, longitudinal programme of assessment, using a variety of methods to meet the intended purposes. This programmatic assessment, which contains multiple assessment points and intermittent decision points, will run throughout the course of the medical students' undergraduate degree.

Staff, students, and the wider community may perceive different purposes from any assessment process. The information gained from assessment processes may be put

to different purposes by different stakeholders. The three main purposes of assessment should be: guiding student learning; ensuring that individual students are satisfactory to progress; and evaluating the curriculum (student learning).

Within the Curriculum Map it should be possible to demonstrate what content and level of learning is covered by any particular assessment item, process, and/or programme. Equally, it should be possible to demonstrate where attributes specified within the Curriculum Map are assessed or could be assessed.

10. *New and emerging topics*

There are some topic areas that are already being explored (see next section). There will also be new and/or emerging topics that should be considered for inclusion in the curriculum. MCC has documented a process whereby new content is considered and how this might replace existing content. The Curriculum Map subcommittee has the responsibility for scrutinizing proposed new content and making recommendations to MCC. Whenever possible any suggested changes in curriculum content should be aligned with one of the core presentations, core professional activities or core conditions. If new material cannot be aligned, consideration would need to be given to establishing a new element (core presentation, core professional activity or core condition), and if necessary replacing or removing an existing one to prevent unreasonable curriculum expansion.

11. *Recently developed and strengthening themes*

Work is currently underway regarding the assessment of professionalism, the place of interprofessional learning and to map clinical skills acquisition across the curriculum. The following themes have been identified as important areas for curriculum development and initiatives, in keeping with international trends in medical education. Curriculum developments which strengthen these themes within the MBChB programme are encouraged.

11.1. *Interprofessional education*

Interprofessional education (IPE) is becoming increasingly important because of the need for health professionals to be 'collaborative-practice-ready' when they enter the health workforce. Interprofessional education occurs 'when learners of two or more health or social care professions engage in learning with, from, and about each other to improve collaboration and the delivery of care'. There are now calls internationally for health professional education to not only better align with current and future societal health needs but to go further and lead the way towards better, more collaborative and sustainable health systems. IPE is therefore ideally suited to foster and effectively deliver teaching and learning in relation to a number of increasingly important areas.

The values ascribed to IPE encompass equal opportunities within and between the professions, respect for individuality, difference and diversity, the sustaining of professional identity and expertise, and promotion of parity between the professions

in the learning environment. IPE is an interactive learning modality, where the interprofessional nature of the learning is made explicit, with intended learning outcomes relating to interprofessional competencies. A divisional working group has been established and will update MCC on progress in this area.

This area relates to five Core Professional Activities (9, 16, 19, 23 & 29); see appendix.

11.2. Quality and safety in health care

International recognition of the need for explicit attention to the quality and safety of health care translates into a need to include this in the undergraduate medical curriculum. Students must be prepared for their roles and responsibilities in providing safe health care and contributing to quality health services. In addition to a sound understanding of quality improvement this will require knowledge of human factors and systems factors, and how they impact on health care experiences and outcomes for patients. There will need to be a deliberate focus on producing graduates who have the necessary knowledge and commitment to playing their part in innovation, quality improvement and quality assurance processes. The overlap and synergies with research skills need to be articulated.

This area relates to two Core Professional Activities (35 & 36); see appendix.

11.3. Culture, self and diversity

Cultural competence is based on the premise that all persons have equal moral worth. Health systems and institutions have embedded beliefs and values, which are reflected in the way health services are prioritized and delivered. Individual doctors also hold a range of beliefs and personal values. The values and beliefs of people and communities may differ from those of health systems, institutions and doctors. These differences, when not identified and addressed in clinical practice contribute to discrimination which impacts on the access and/or quality of health care delivered. Effectively identifying and addressing these issues will require attention at institutional, interpersonal and intrapersonal levels, including:

1. understanding power relationships within society and within the health system.
2. understanding the role of the Determinants of Health and their impact on health outcomes.
3. having frameworks to understand the concept of culture and how that relates to self and diversity as it applies to the practice of medicine.
4. understanding the importance of self-awareness and self-reflection as an essential prerequisite to the practice of medicine.
5. developing effective skills and processes which respect and incorporate the patient's beliefs, values and experiences.

These areas relate to five Core Professional Activities (4, 5, 15, 24, 26); see appendix.

11.4. Palliative medicine and end of life care

Patients with palliative and end of life care needs are encountered in all healthcare settings including those where the majority of care is provided by generalist healthcare providers. Our responsibility is to ensure our graduates develop the necessary knowledge, skills and attitudes to participate in palliative and end of life care for these patients and their family/whānau.

This area relates to eleven Core Professional Activities (2, 3, 5, 8, 9, 15, 17, 22, 23, 26 & 30,) and to two Core Presentations (127, 133); see appendix.

11.5. Teamwork and contribution to the profession

Doctors function as team members and as team leaders, both in clinical contexts and in wider aspects of their roles. All doctors also, by virtue of their membership of the medical profession, need to be prepared to take on aspects of leadership within, and on behalf of, their communities.

The changing nature of health care systems and services has meant that health care is rarely, if ever, now provided by individual doctors outside of a wider health care team. Depending on the context and the nature of the particular doctor-patient interaction the doctor might be the leader of the clinical care team or one member of a broad and inter-professional team all of whom are contributing to patient care and working with the patient and their family/whānau to achieve the best possible outcomes.

All teams, clinical and other, function most effectively when every team member understands and respects their own roles, the roles of others, and the communication and coordination required to achieve optimal functioning and desired outcomes.

It is important for students to observe a range of team activities and to have opportunities to participate in teams and experience leadership roles as well as contributing as followers. There are many group learning and work-based activities which are grounded in teamwork and which can allow students to develop knowledge and skills in effective teamwork, including effective communication, coordination and leadership. Clinical supervision is inherent in all clinical work and work-place learning and is of itself an opportunity to experience leadership, guidance and skills at following.

As part of their professional identity formation students also need to understand and embrace aspects of the leadership of, and by, the profession as a whole. This forms part of the social contract and the professional obligation. We need to equip all students to function as clinical leaders and identify and foster those with interest in leadership in other areas such as health care administration, health professional education, research and scholarship.

A review and overview of the specific learning outcomes and progression of learning within the undergraduate years in relation to teamwork and leadership is required.

This area relates to a Core Professional Activity (19); see appendix.

11.6. Doctors as educators

There are synergies between good education and good patient care. Identifying and responding to student learning needs is transferable to identifying and responding to patient needs. Furthermore, there is an increasing need for patients to be more informed to make their own decisions about their health care. This requires effective communication of quality information. More explicit inclusion of “doctors as educators” would therefore benefit not only students and trainees, who will become the future workforce, but more importantly patient care. The aim would be for all students to be competent to support peers, future students and future doctors in their learning. There are also direct benefits for students as teachers in enhancing their own learning. The aspects that are best suited to an undergraduate curriculum need to be determined.

This area relates to two Core Professional Activities (27 & 29); see appendix.

11.7. Doctors as researchers

Research underpins medical practice and the development of a clinician’s essential knowledge base. Future doctors therefore must be able to access and evaluate epidemiological, clinical, biomedical and relevant social sciences research, and how these inform health care delivery at the individual and system level. The MBChB curriculum should provide students with the opportunity for engagement in in-depth research during their medical student training. All students should contribute to quality improvement and/or research activities.

This area relates to a Core Professional Activity (32); see appendix.

11.8. The health and well being of medical students

There is growing evidence that both medical students and doctors experience considerable stress, and that how doctors care for themselves will impact on how they care for patients. Personal wellbeing is encapsulated in a Core Professional Activity (30); see appendix.

The 5-10 year plan is to increase student awareness of the need for self-care, offering students a variety of skills that address personal and professional resilience. This may involve student-led initiatives as well as School strategies.

12. Social accountability

The responsibilities of a medical curriculum are to produce doctors who can meet the health care, workforce and research needs of their societies. In New Zealand, the details of these responsibilities are largely negotiated with government, particularly the health and education ministries, the DHBs, and research funding bodies. While we may consider that we have a social contract with “the public”, this has scarcely been a direct relationship for some decades, other than some relatively recent links with tangata whenua. The Global Consensus for Social Accountability of Medical Schools (December 2010) argues for a much stronger role for local communities, and recommends that they should be regularly surveyed to provide feedback as to the level of social accountability of the school. The Otago Medical School is committed to

developing effective processes for such engagement that delivers real benefits for our students, the School and its campuses and for our local communities.

13. *Implementing the Masterplan*

13.1. Cost implications

The requirements for each Clinical Learning Environment have been outlined but emphasis should be placed on the need for staff support/development, IT, and videoconferencing facilities. There are also implications for the appropriate mix of staff that need to be explored. For example, more distributed learning might require greater employment of professional practice fellows and of generalists in our Clinical Learning Environments who teach across the range of disciplines traditionally taught by specialists.

The breakdown of funding of the curriculum should be known to staff and students.

13.2. Consultation and staff support

Implementation of aspects of the Masterplan requires the input and support of departments, HODS, Deans and all staff, combined with staff development, to ensure its adoption. In order to manage any changes it is anticipated that the following are required:

- dialogue with key stakeholders to refine and develop the Masterplan
- effective liaison with departments
- effective staff development activities to support changes or ensure existing approaches are better realized. This may be particularly pertinent to new themes as they emerge
- efforts to ensure that future employers, DHBs etc are consulted and aligned to the overall strategic direction of the Masterplan
- monitoring and evaluating its implementation with fine-tuning as required.

Two of the critical components to implement change are staff ownership and trust. We suspect there is no substitute therefore for many facilitated cross-campus discussions.

14. *Developing the Masterplan*

The Curriculum Master Plan should be regarded as a guide to the direction of change, rather than something to be implemented in its entirety all at once. If decisions are being made about curricular enhancements, then Curriculum Master Plan should be used to decide the directions to take.

Many of the concepts need more development and detail but this can only occur after receiving further feedback.

15. Appendices

15.1. Core presentations

A core presentation is a symptom, complaint, problem or request a patient has identified or a clinically recognisable patient state which requires further diagnostic consideration including an initial assessment and management strategy.

1. Anaemia/pallor
2. Lymphadenopathy
3. Bruising/purpura/petechiae
4. Splenomegaly
5. Immune deficiency/immunosuppression
6. Palpitations/abnormal heart rhythm
7. Abnormal blood pressure
8. Chest pain
9. Heart murmur/abnormal heart sounds in an adult
10. Heart murmur/ abnormal heart sounds in an infant/child
11. Shock
12. Unilateral swelling in the calf or leg
13. Pain in calf, thigh, or buttocks on walking
14. Shortness of breath
15. Respiratory distress in a child
16. Obstructed airway
17. Coughing up blood
18. Cough
19. Upper respiratory symptoms (nasal blockage, nasal discharge, sore throat)
20. Sleeping problems
21. Abnormal development of secondary sex characteristics
22. Malnutrition/undernutrition
23. Dehydration
24. Polyuria/polydipsia
25. Neck swellings/lumps
26. Difficulty/pain swallowing
27. Abdominal/loin/groin pain
28. Abdominal pain in children
29. Disturbance of bowel habit
30. Gastro-intestinal bleeding
31. Jaundice
32. Infant jaundice
33. Nausea/vomiting
34. Abdominal mass/swelling in an adult
35. Abdominal mass/swelling in a child
36. Oliguria/anuria
37. Blood in the urine
38. Urinary retention
39. Urinary incontinence
40. Lower urinary tract symptoms
41. Genital ulceration/discharge/warts
42. Scrotal/groin pain or abnormality
43. Breast lump/other changes
44. Female pelvic pain/ discomfort
45. Abnormal vaginal discharge
46. Disorder of menstruation/intermenstrual/ post -menopausal vaginal bleeding

47. Menopausal symptoms
48. Unintentional weight loss
49. Obesity
50. Fatigue/lethargy/malaise
51. Generalised/peripheral oedema
52. Febrile illness in an adult
53. Febrile illness in an infant/child
54. Hypothermia/frostbite
55. Skin wound, including human or animal bite
56. Burn(s)
57. Ingestion of toxic substances (accidental or intentional)
58. Multiple trauma
59. Head injury
60. Eye injury
61. Spinal injury
62. Chest/abdominal/pelvic injury
63. Fracture/dislocation/soft tissue limb injury
64. Confusion/altered mental state
65. Eating disturbance
66. Altered mood
67. Anger/aggression
68. Anxiety/agitation/stress
69. Psychosis/hallucinations/delusions
70. Self-harm/suicidal intent
71. Back/neck pain.
72. Limb(s) pain/lump(s)
73. Limp/abnormal gait in a child
74. Single joint problem
75. Multiple joint problem
76. Sore joints in a child
77. Deformity of spine/chest/upper limb/lower limb
78. Muscle spasms/cramps
79. Falls
80. Loss of consciousness
81. Altered level of consciousness
82. Headache/facial pain
83. Memory loss/forgetfulness
84. Speech/language disturbances
85. Involuntary movements/gait disturbance
86. Dizziness/vertigo
87. Numbness/paraesthesiae
88. Weakness focal/generalised.
89. Red eye
90. Painful/dry/irritable eye
91. Pupil abnormality
92. Double vision
93. Sudden change of vision
94. Gradual change of vision
95. Visual problems in infancy and childhood
96. Bulging eye(s)
97. Nose bleed
98. Ear ache/discharge
99. Hoarseness/voice change
100. Hearing loss/tinnitus

101. Childhood disability/chronic condition
102. Normal pregnancy/labour/puerperium
103. Vaginal bleeding in pregnancy
104. Large or small for dates gestation
105. A medical complication in pregnancy
106. Complications of labour
107. Problems in the puerperium
108. Sick newborn/infant
109. Infant feeding problems
110. Failure to thrive
111. Developmental delay/dysmorphic features
112. Slow or accelerated growth in childhood
113. Localised skin change/lesion
114. Skin change in unwell patient
115. Rash
116. Urticaria (hives)/angioedema
117. Pigmented skin lesion/pigment patch
118. Pruritus/itchy skin
119. Skin ulcer(s)
120. Hair/nail complaints
121. Skin/subcutaneous lump(s)
122. Unplanned pregnancy
123. Suspected/actual physical, sexual, psychological or emotional abuse within and outside the family group
124. Risk-taking behaviours such as alcohol and other drug use, and risky sexual activity
125. Request for help with behaviour/life style change
126. Request for preventive health information
127. Patient and/or family requiring community support/respite care
128. Request for sexual health information/help with sexual dysfunction
129. Infertility
130. Request for contraception/sterilisation
131. Discussion about termination of pregnancy
132. Cardiorespiratory arrest
133. Advanced, progressive or terminal disease requiring a palliative approach

15.2. Core professional activities

Core professional activities are based around some of the most common and important roles and tasks required of medical professionals and require integration of knowledge skills and attitudes into a meaningful whole. Each CPA constitutes one of the many “things doctors do” in their professional roles. For the purposes of this Curriculum Map each activity is described in terms, which reflect the standard or level of competence which can reasonably be expected of a new medical graduate.

1. Complete a doctor-patient consultation addressing the patient’s needs and perspectives, including cultural aspects, while also completing the medical tasks and duties.
2. When the patient identifies as Māori, manage the consultation in a manner which includes Māori health models of engagement and assessment utilising te reo, tikanga and other relevant Hauora Māori competencies.
3. Appropriately incorporate advice and guidance from a Māori health clinician, worker or provider.
4. When the patient identifies as Pacific, manage the consultation in a manner which includes Pacific health models of engagement and assessment.
5. Support patients and family/whānau to navigate their health journey by considering their physical, psychosocial, cultural and spiritual beliefs/experiences, and by working with the health care team to ensure appropriate support is provided
6. Be flexible in order to adapt the assessment and management approach to take account of context, patient factors, population risks and prevalence rates.
7. Select, organise and/or perform appropriate core diagnostic tests and explain the tests/procedures and the results to patients.
8. Recognise and initiate management of the acutely unwell and/or deteriorating patient.
9. Contribute to the shared management of patients with chronic conditions.
10. Use appropriate assessment and management strategies in circumstances where the patient has impaired competence and/or autonomy.
11. Use appropriate assessment and management strategies in circumstances where the patient has impaired communication, comprehension and language difficulties, and/or disability.
12. Recognise and appropriately manage a situation when the interaction with the patient is challenging or difficult.
13. Assess and manage patients around the time of an operation.
14. Complete an age-appropriate consultation of a paediatric patient; including adolescent, child, infant and new-born.
15. Share information and decision-making with a patient, and when appropriate, their family/whānau or chosen others, in order to construct an acceptable management plan which incorporates the patient’s preferences and values.
16. Communicate patient information to health professional colleagues in a way which demonstrates clinical reasoning through a provisional diagnosis, differential diagnosis and formulated management plan.
17. Select, organise, and/or perform or prescribe, monitor and/or evaluate appropriate core therapeutic interventions.
18. Contribute to the effective provision and receipt of handover of care of a patient.
19. Function competently as a member of a health care team including respectful and effective communication, and calling for help and/or closer supervision when appropriate.
20. Respect and protect patient confidentiality within consultations and within teams and systems of health care, recognising and managing circumstances in which there are limits to confidentiality.

21. Follow appropriate process and procedures for consent in health care, recognising and managing circumstances when consent is not obtained or possible.
22. Contribute to discussions with patients, and when appropriate their family/whānau or chosen others, in relation to poor prognosis, advance care planning, end-of-life care, and resuscitation status including DNACPR orders (do not attempt cardiopulmonary resuscitation)
23. Contribute to health care team discussions involving the range of ethical dilemmas arising in clinical practice.
24. Recognise and manage situations where personal moral values differ from those of individual patients and/or the accepted ethical codes of the medical profession.
25. Comply with legislation relevant to clinical practice in New Zealand.
26. Apply appropriate frameworks relating to culture, self and diversity when working with patients, family/whānau and communities.
27. Undertake continuing professional development recognising and managing personal limits, and seeking and responding appropriately to feedback.
28. Maintain appropriate professional boundaries, and seek and offer support in circumstances where there is recognisable risk of boundary violations.
29. Contribute to the professional development and/or supervision of students, peers and health professional colleagues.
30. Recognise and manage risks to personal wellbeing that could impact on practice and/or professional development.
31. Recognise and respond to situations where impairment of wellbeing and/or the competence of a peer or colleague could pose a risk to patients or the public.
32. Formulate a practice-related question, gather, critically appraise and interpret relevant information and evidence, and apply these to the question.
33. Apply health promotion principles to develop and/or evaluate an initiative designed to improve the health of a population.
34. Recognise and decide when a health problem requires a choice between a population approach and an individual approach.
35. Contribute to quality assurance and quality improvement of health care delivered by individuals and systems.
36. Recognise and manage systems and/or individual factors where there is a risk of error, harm or sub-optimal care and manage occasions when these have occurred.
37. Identify determinants of health, and advocate for and contribute to, interventions that reduce inequities and improve the health of populations.
38. Engage patients in preventive and population strategies to improve individual and population health.
39. Apply the science of normal structure and function (from genomic to whole body) to optimize individual and population health.
40. Apply the science of abnormal structure and function (from genomic to whole body) to prevent, diagnose and manage individual and population health problems.
41. Apply the science of environmental, microbiological, radiation and other external factors to prevent, diagnose and manage individual and population health problems.
42. Apply the behavioural and social sciences to optimize health and manage conditions of individuals, family/whānau and communities.
43. Understand common qualitative and quantitative study designs and interpret and apply study findings to practice