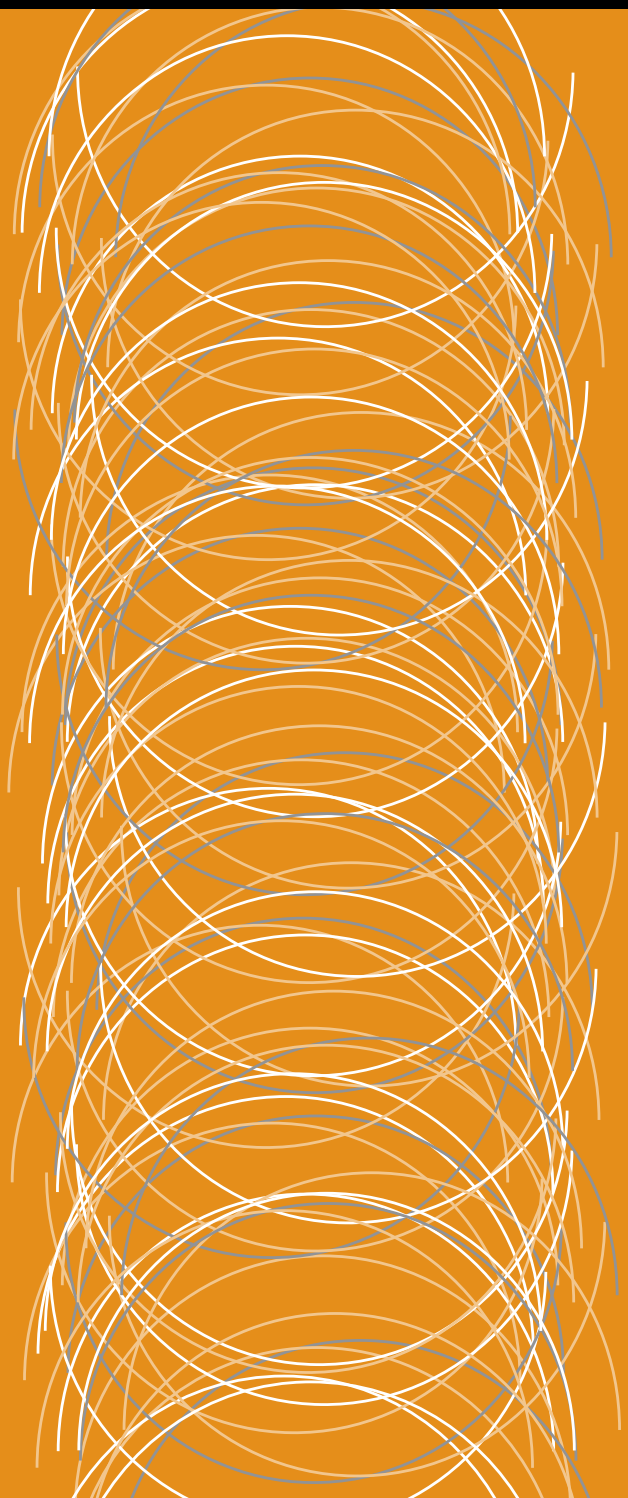
Australian Medical Council Limited

Accreditation of The University of Sydney Sydney Medical School

AMC



Medical School Accreditation Committee
December 2015

Digital edition 2018

ABN 97 131 796 980
ISBN 978-1-938182-98-3

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Accreditation process

The University of Sydney, Sydney Medical School is seeking reaccreditation of its Doctor of Medicine (MD) and Bachelor of Medicine/Bachelor of Surgery (MBBS) medical programs.

The AMC's *Procedures for Assessment and Accreditation of Medical Schools by the Australian Medical Council 2011* provide for accredited medical education providers to seek reaccreditation when a period of accreditation expires. Accreditation is based on the medical program demonstrating that it satisfies the accreditation standards for primary medical education. The provider prepares a submission for reaccreditation. An AMC team assesses the submission and visits the provider and its clinical teaching sites.

The University of Sydney, Sydney Medical School is part of the University's Division of Medicine, Dentistry, Nursing and Pharmacy.

The Sydney medical program was first accredited by the AMC in 1993, as a six-year undergraduate Bachelor of Medicine / Bachelor of Surgery program. In 1997 the School introduced a four-year graduate entry program. The AMC conducted assessments in 1996 and 1998 on this major change and the program received accreditation to 2002. In 2001 following review of the School's comprehensive report, the AMC extended accreditation to 2005.

The program was last assessed for reaccreditation by the AMC in 2005, and accreditation was extended to 30 June 2011, subject to the provision of satisfactory progress reports. In 2011, the School received an extension of accreditation to 31 December 2015 following a comprehensive report.

In 2013, the School submitted advice that the medical program would change to a Doctor of Medicine (MD) from 2014; the AMC did not consider this a major change. Students enrolled before 2014 are not able to enrol in or transfer to the MD.

An AMC team reviewed the School's submission and the Sydney University Medical Students' Society's submission, and visited the School and associated clinical teaching sites in the week of 24 August 2015.

This report presents the AMC's findings against the *Standards for Assessment and Accreditation of Primary Medical Programs by the Australian Medical Council 2012*.

Decision on accreditation

Under the *Health Practitioner Regulation National Law*, the AMC may grant accreditation if it is reasonably satisfied that a program of study and the education provider that provides it, meet an approved accreditation standard. It may also grant accreditation if it is reasonably satisfied the provider and the program of study substantially meet an approved accreditation standard, and the imposition of conditions on the approval will ensure the program meets the standard within a reasonable time.

Having made a decision, the AMC reports its accreditation decision to the Medical Board of Australia to enable the Board to make a decision on the approval of the program of study for registration purposes.

Reaccreditation of established education providers and programs of study

The accreditation options are:

(i) Accreditation for a period of six years subject to satisfactory progress reports. In the year the accreditation ends, the education provider will submit a comprehensive report for extension of accreditation. Subject to a satisfactory report, the AMC may grant a further period of accreditation, up to a maximum of four years, before a new accreditation review.

(ii) Accreditation for six years subject to certain conditions being addressed within a specified period and to satisfactory progress reports. In the year the accreditation ends, the education provider will submit a comprehensive report for extension of accreditation. Subject to a satisfactory report, the AMC may grant a further period of accreditation, up to a maximum of four years, before a new accreditation review.

(iii) Accreditation for shorter periods of time. If significant deficiencies are identified or there is insufficient information to determine the program satisfies the accreditation standards, the AMC may award accreditation with conditions and for a period of less than six years.

(iv) Accreditation may be withdrawn where the education provider has not satisfied the AMC that the complete program is or can be implemented and delivered at a level consistent with the accreditation standards.

The AMC is satisfied that the medical programs of the University of Sydney, Sydney Medical School meet the approved accreditation standards.

The 17 February 2016 meeting of the AMC Directors agreed:

(i) That the four-year graduate entry Bachelor of Medicine / Bachelor of Surgery (MBBS) medical program of the University of Sydney, Sydney Medical School **be granted accreditation to 31 March 2020** (N.B. the MBBS will be phased out entirely by 2019)**;** and

(ii) That the four-year graduate entry Doctor of Medicine (MD) medical program of the University of Sydney, Sydney Medical School **be granted accreditation to 31 March 2022;** and

(iii) That accreditation of both the programs is subject to satisfactory progress reports; and to the following conditions:

2016 conditions

Refine the School's purpose to ensure that it addresses Aboriginal and Torres Strait Islander peoples and their health (Standard 2.1.2).

Provide evidence that the program's graduate outcomes are consistent with the AMC Graduate Outcome Statements (Standard 2.2.1).

Improve mechanisms to track performance of graduates to evaluate the outcomes of the program (Standard 6.2.2).

Develop clear structures and processes for managing evaluation data, demonstrating that evaluation cycles are closed (Standard 6.3).

Define a target for Aboriginal and Torres Strait Islander student intake (Standard 7.1.2), and in accordance with any increase, ensure appropriate infrastructure and support as required by Standard 7.1.3.

Ensure that information about the mechanism for appeals regarding the selection process is publically available (Standard 7.2.4).

Formalise processes and structures regarding student representation in the governance of their program (Standard 7.5.1).

Key findings of the AMC's 2015 reaccreditation assessment of the Sydney Medical School medical programs

1. The context of the medical program	Met

All standards are met and there are no conditions.

Commendations

The culture of excellence and scholarship in medical education, led by the Education Office, which has resulted in extraordinary productivity at all levels of the program across all sites (Standard 1.4).

The School's exceptional research performance that informs the program's learning and teaching, as demonstrated in the clinical teaching environment via the Sydney Health Partners and in the Charles Perkins Centre (Standard 1.7).

2016 recommendations for improvement

Evaluate the revised committee structure to determine if it has refined reporting lines and reduced duplication of responsibilities (Standard 1.1).

Develop further partnerships with Aboriginal communities (Standard 1.6).

Increase resources for Indigenous academic staff appointments and development of Indigenous staff, in order to support all matters related to Indigenous health and allow for succession planning for key staff (Standard 1.8.3).

2. The outcomes of the medical program	Substantially met

Standards 2.1.2 and 2.2.1 are substantially met.

2016 conditions

Refine the School's purpose to ensure that it addresses Aboriginal and Torres Strait Islander peoples and their health (Standard 2.1.2).

Provide evidence that the program's graduate outcomes are consistent with the AMC Graduate Outcome Statements (Standard 2.2.1).

2016 recommendation for improvement

Implement formal mechanisms to enable consumer input and consultation into the School's teaching, service and research activities (Standard 2.1.4).

3. The medical curriculum	Met

All standards are met and there are no conditions.

Commendations

The attention paid to ensure that the curriculum content and design is comprehensive and educationally sound (Standard 3.2).

The commitment from clinical staff to develop, review and update curriculum content on a rolling review basis (Standard 3.2).

The exceptional efforts of the Associate Dean (Indigenous) and the Indigenous Health Education Unit in revising the Indigenous health curriculum, which has precipitated increased student interest in Indigenous health (Standard 3.5).

2016 recommendations for improvement

Provide additional opportunities for students to acquire points in the 'Understanding Indigenous health program' at the rural centres (Standard 3.2).

Formalise the safety and quality component in the curriculum and align to graduate outcomes (Standard 3.2.3).

Review the capacity of the Population medicine theme to take a more assertive role in the teaching of evidence-based practice, epidemiology and other aspects of public health (Standard 3.2.3).

Complete work to refine course learning objectives (Standard 3.4).

4. Teaching and learning	Met

All standards are met and there are no conditions.

Commendations

The weekly clinical contact that commences early in Stage 1 for all students (Standard 4.1).

The impressive number of committed clinicians who teach and provide clinical supervision, promoting positive role modelling in clinical practice and research (Standard 4.5).

2016 recommendation for improvement

Create an overarching interprofessional learning framework for the curriculum to ensure consistency in outcomes across sites (Standard 4.6).

5. The curriculum – assessment of student learning	Met

All standards are met and there are no conditions.

Commendations

The level of skill and commitment that the Assessment and Evaluation Unit devotes to assessment practices, standard setting and analysis of assessment data (Standard 5.2); and its detailed feedback reports provided to Units and teachers (Standard 5.3).

The consistency of assessment practices across all teaching sites (Standard 5.4).

2016 recommendation for improvement

Review the balance of formative and summative assessment, written and clinical, and sub-specialty versus generalist content (Standard 5.2).

6. The curriculum – monitoring	Substantially met

Standards 6.2.2 and 6.3 are substantially met.

2016 conditions

Improve mechanisms to track performance of graduates to evaluate the outcomes of the program (Standard 6.2.2).

Develop clear structures and processes for managing evaluation data, demonstrating that evaluation cycles are closed (Standard 6.3).

Commendations

The School's strong commitment to monitoring, evaluation, feedback and quality improvement of the program through the use of a range of methods applied through the Assessment and Evaluation Unit (Standard 6.1).

The innovative rolling, sample-based system for teacher evaluation, conducted by a new group of students every two weeks (Standard 6.1.2).

7. Implementing the curriculum – students	Substantially met

Standards 7.1.2, 7.2.4 and 7.5.1 are substantially met.

2016 conditions

Define a target for Aboriginal and Torres Strait Islander student intake (Standard 7.1.2), and in accordance with any increase, ensure appropriate infrastructure and support as required by Standard 7.1.3.

Ensure that information about the mechanism for appeals regarding the selection process is publically available (Standard 7.2.4).

Formalise processes and structures regarding student representation in the governance of their program (Standard 7.5.1).

Commendation

The comprehensive range of support services available to students, both online and in person, centrally and at the clinical schools (Standard 7.3.1).

2016 recommendation for improvement

Consider policies to allow entry for students from low socio-economic backgrounds and monitor their entry (Standard 7.1.3).

8. Implementing the curriculum- learning environment	**Met**

All standards are met and there are no conditions.

Commendations

The School's superior physical facilities and the University's redevelopment plans to upgrade older buildings at Central and Westmead (Standard 8.1).

The School's impressive bespoke ICT student applications, including its learning management system, Compass (Standard 8.2).

The clinical schools' ability to imbed students into clinical service delivery, and engage constructively with other health and medical education providers (Standard 8.3).

2016 recommendation for improvement

Implement strategies to restore student interest in the rural placement (Standard 8.3.1).

Introduction

The AMC accreditation process

The AMC is a national standards body for medical education and training. Its principal functions include assessing Australian and New Zealand medical education providers and their programs of study, and granting accreditation to those that meet AMC accreditation standards.

The purpose of AMC accreditation is to recognise medical programs that produce graduates competent to practice safely and effectively under supervision as interns in Australia and New Zealand, with an appropriate foundation for lifelong learning and further training in any branch of medicine.

The *Standards for Assessment and Accreditation of Primary Medical Programs by the Australian Medical Council 2012* list the graduate outcomes that collectively provide the requirements that students must demonstrate at graduation, define the curriculum in broad outline, and defines the educational framework, institutional processes, settings and resources necessary for successful medical education.

The AMC's Medical School Accreditation Committee oversees the AMC process of assessment and accreditation of primary medical education programs and their providers, and reports to AMC Directors. The Committee includes members nominated by the Australian Medical Students' Association, the Confederation of Postgraduate Medical Education Councils, the Committee of Presidents of Medical Colleges, the Medical Council of New Zealand, the Medical Board of Australia, and the Medical Deans of Australia and New Zealand. The Committee also includes a member of the Council, and a member with background in, and knowledge of, health consumer issues.

The school's accreditation submission forms the basis of the assessment. The medical student society is also invited to make a submission. Following a review of the submissions, the team conducts a visit to the school and its clinical teaching sites. This visit may take a week. Following the visit, the team prepares a detailed report for the Medical School Accreditation Committee, providing opportunities for the medical school to comment on successive drafts. The Committee considers the team's report and then submits the report, amended as necessary, to the AMC Directors. The Directors make the final accreditation decision. The granting of accreditation may be subject to conditions, such as a requirement for follow-up assessments.

After it has accredited a medical program, the AMC seeks regular progress reports. Accredited medical education providers are required to report any developments relevant to the accreditation standards and to address any conditions on their accreditation and recommendations for improvement made by the AMC. Reports are reviewed by an independent reviewer and by the Medical School Accreditation Committee.

The University and the School

The University of Sydney was established in 1852 as Australia's first university. In 2015 the University has approximately 52,789 undergraduate and postgraduate students enrolled, and 7,616 staff academic and professional staff members.

The University organisational structure consists of sixteen faculties, which are grouped into seven divisions. The Sydney Medical School sits within the Division of Medicine, Dentistry, Nursing and Pharmacy.

The School is the oldest faculty of medicine in Australia and New Zealand (though not the first to teach medicine or confer a medical degree). Its first medical degree was conferred in 1866, and the first medical course commenced in 1883.

Today, the School is a major international centre of research and teaching in health and medicine. In 2014, the School attracted almost $215 million in research grants and produced more than 3,000 publications, with over 1,600 staff actively involved in research. The School had more than 1,500 students in its other postgraduate medical courses.

The medical program is a four-year graduate entry program. The program is structured as a foundational phase in Years 1 and 2 (known as Stages 1 and 2), and a clinical phase in Years 3 and 4 (Stage 3). In 2014, the medical program had approximately 1,200 students enrolled from Years 1 – 4, comprising approximately 300 students per year, including 228 Commonwealth supported places, and 80 full-fee international places.

The School's main campus is located at the University's Camperdown campus in Sydney. The Sydney Medical School includes the School of Public Health and the School of Medical Sciences; and eight clinical schools and two university rural health sites as shown:

- Central Clinical School
- The Children's Hospital at Westmead
- Concord Clinical School
- Nepean Clinical School
- Northern Clinical School
- Rural Clinical School
- Sydney Adventist Clinical School
- Westmead Clinical School; and
- University Centre for Rural Health, Lismore
- University Department of Rural Health, Broken Hill.

The School encompasses a large network of clinical schools and facilities that contribute to the delivery of the medical program. The School also includes approximately 30 academic disciplines and a diverse range of centres and institutes.

Accreditation history

The Sydney medical program was first accredited by the AMC in 1993 as a six-year undergraduate Bachelor of Medicine / Bachelor of Surgery program. In 1997 the School introduced a four-year graduate entry program. The AMC conducted assessments in 1996 and 1998 on this major change, and granted the program accreditation to 2002. In 2001 the School received an extension of accreditation to 2005, following a comprehensive report.

The program was last assessed by the AMC in 2005. On the basis of this assessment accreditation was extended to 30 June 2011, subject to the provision of satisfactory progress reports.

The School submitted a comprehensive report and request for extension of accreditation to the AMC in 2010. As the School had undergone significant strategic review, including changes to the outcomes, governance changes and a revised curriculum, the School was asked to submit a second comprehensive report. On the basis of this report the AMC granted accreditation to 31 December 2015, subject to satisfactory progress reports.

In 2013, the School submitted advice that the medical program would change to a Doctor of Medicine (MD); the AMC considered the proposal and found it was not a major change. The first cohort to graduate with the MD commenced in 2014. Students enrolled before 2014 are not able to enrol in or transfer to the MD. The final cohort in the MBBS program will complete the program in 2016, and the School expects that the MBBS will be phased out completely by 2019.

An AMC team reviewed the School's submission and the Sydney University Medical Students' Society's submission, and visited the School and associate clinical teaching sites in the week of 24 August 2015.

This report

This report details the findings of the 2015 reaccreditation assessment. Each section of the accreditation report begins with the relevant AMC accreditation standards.

The members of the 2015 AMC team are given at **Appendix One.**

The groups met by the AMC in 2015 are given at **Appendix Two.**

Appreciation

The AMC thanks the University and Sydney Medical School staff for the detailed planning and the comprehensive material provided for the team. The AMC also acknowledges and thanks the staff, clinicians, students and others who met members of the team for their hospitality, cooperation and assistance during the assessment process.

1 The context of the medical program

1.1 Governance

1.1.1 The medical education provider's governance structures and functions are defined and understood by those delivering the medical program, as relevant to each position. The definition encompasses the provider's relationships with internal units such as campuses and clinical schools and with the higher education institution.

1.1.2 The governance structures set out, for each committee, the composition, terms of reference, powers and reporting relationships, and allow relevant groups to be represented in decision-making.

1.1.3 The medical education provider consults relevant groups on key issues relating to its purpose, the curriculum, graduate outcomes and governance.

The Sydney Medical School sits within the University of Sydney Division of Medicine, Dentistry, Nursing and Pharmacy. The Division's Board merged with the Health Sciences Divisional Board in 2014 to form the Joint Board of the Divisions of Health, of which the dean of medicine is a co-chair. The School also interacts with the Division of Natural Science, which includes the Faculty of Science.

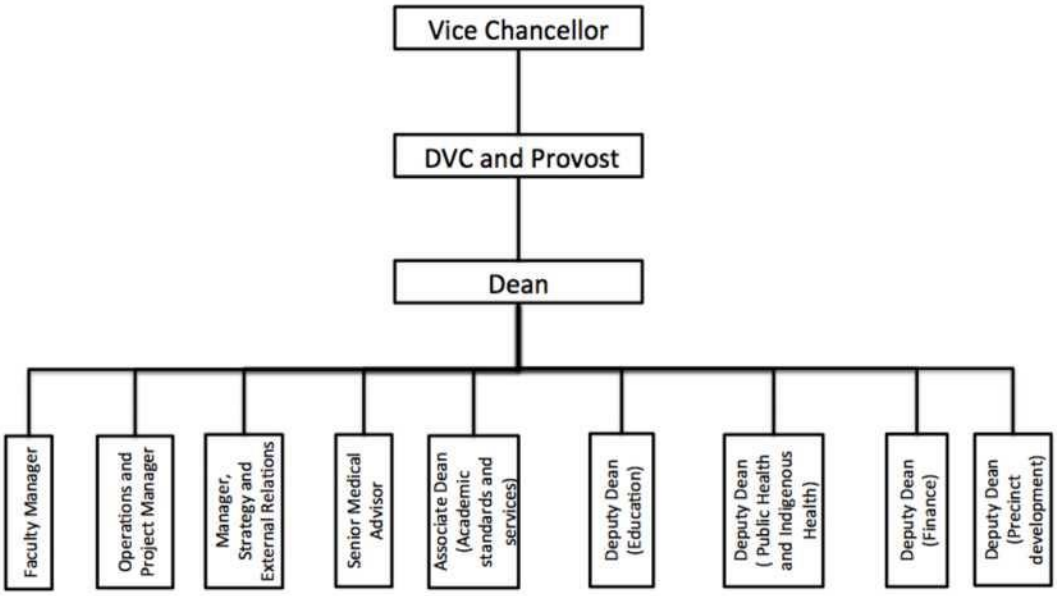
At the last AMC assessment in 2005, the Faculties were grouped in Colleges. From 2008 these were restructured as Divisions, which promote collaboration in teaching and research, as opposed to being a managerial centre with shared budgets and services. Centralisation of many university services also resulted and is continuing.

Within the University, the School is represented on the Senior Executive Group, which is chaired by the vice chancellor and includes the deputy vice-chancellors and senior representatives of the Divisions. This group makes major management decisions and is accountable for implementing the University's Strategic Plan.

The Sydney Medical School is headed by the dean of medicine (the Dean) who is appointed by the vice chancellor. The Dean's Executive Group meets at least weekly and includes the four deputy deans, three senior managers, a senior medical advisor, and the associate dean (academic standards and services).

In addition, the Dean's Advisory Committee is comprised of all the leadership members in the School, and meets six times per year.

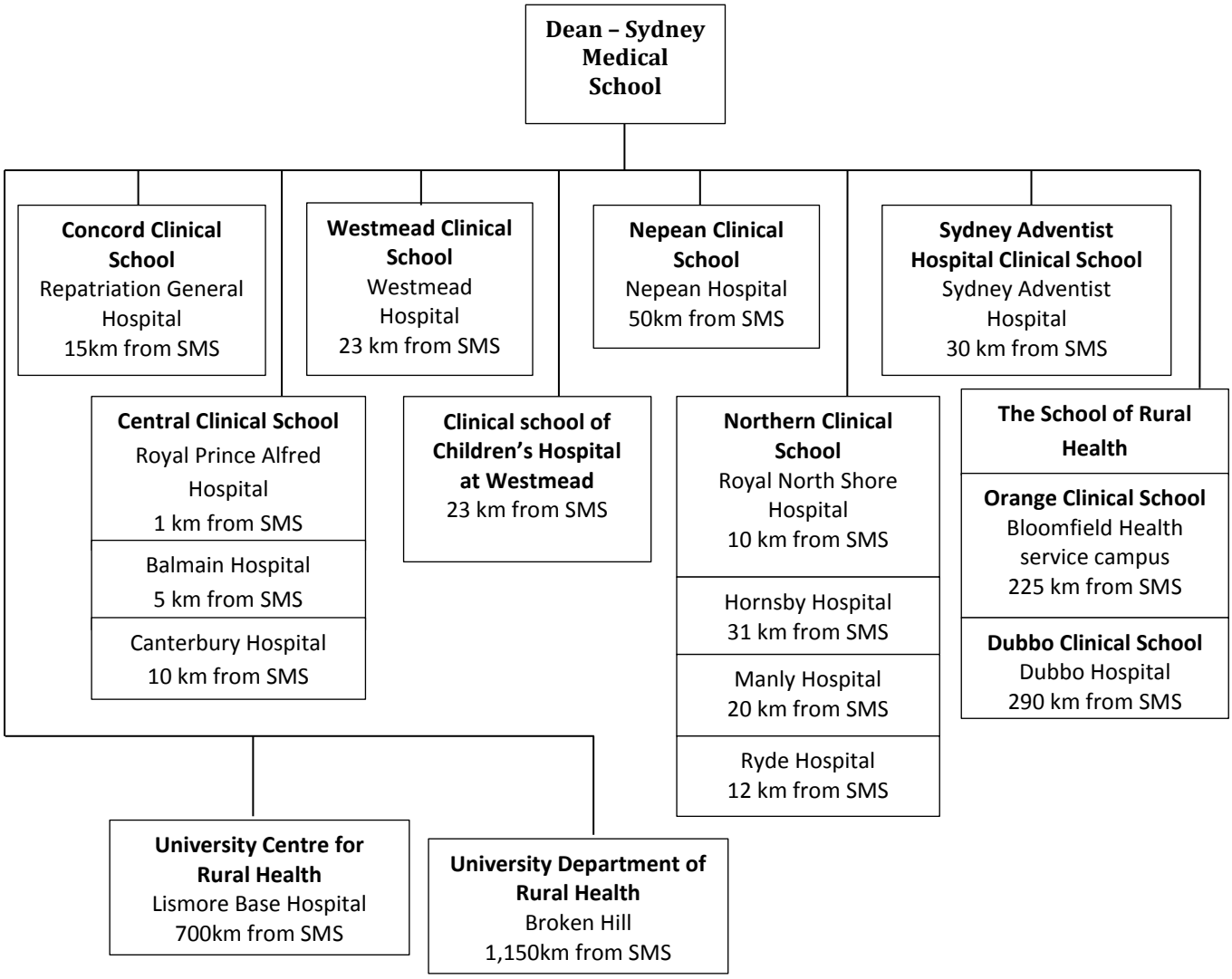
Figure 1: Organisational structure of the Executive



The deputy dean (education) is responsible for the medical program and postgraduate course work programs. This role was created to consolidate oversight of all of the School's educational activities and resources. In mid-2015, the School filled the position of director of the program, appointing two candidates as co-directors who report to the deputy dean (education). The responsibilities of these roles to the program are discussed at Standard 1.2.

The Sydney Medical School has a large organisational structure with a dispersed network of clinical teaching sites. The School includes eight clinical schools, and two university rural health sites, as outlined in Figure 2.

Figure 2: Clinical schools and university rural health sites



Each clinical school is led by an associate dean (clinical), who reports to the Dean, while also working closely with the co-directors of the program. The clinical school heads meet regularly as a group and in relevant committee meetings. The team was impressed with the collegial and supportive relationship among this group, the strong links with central campus, and the good relationships these individuals had with their clinical sites and stakeholders.

In addition to the eight clinical schools, other functional entities in the School have roles in the program, as outlined:

- School of Public Health - based at main campus, it contributes to the teaching of public health in the program, and its representatives for the Population medicine theme are members of the Faculty Learning and Teaching, Postgraduate Coursework, and Teaching Quality and Evaluation Committees. Its academic staff also sit on the Program Committee.
- School of Medical Sciences - based at main campus, it teaches pathology, pharmacology, physiology, anatomy and histology in the program. It has representation on all of the educational committees, and the Basic and Clinical

Sciences Committee. It also delivers units in the Faculty of Science's Bachelor of Medical Science degree, including anatomy, histology and embryology, physiology and pharmacology.

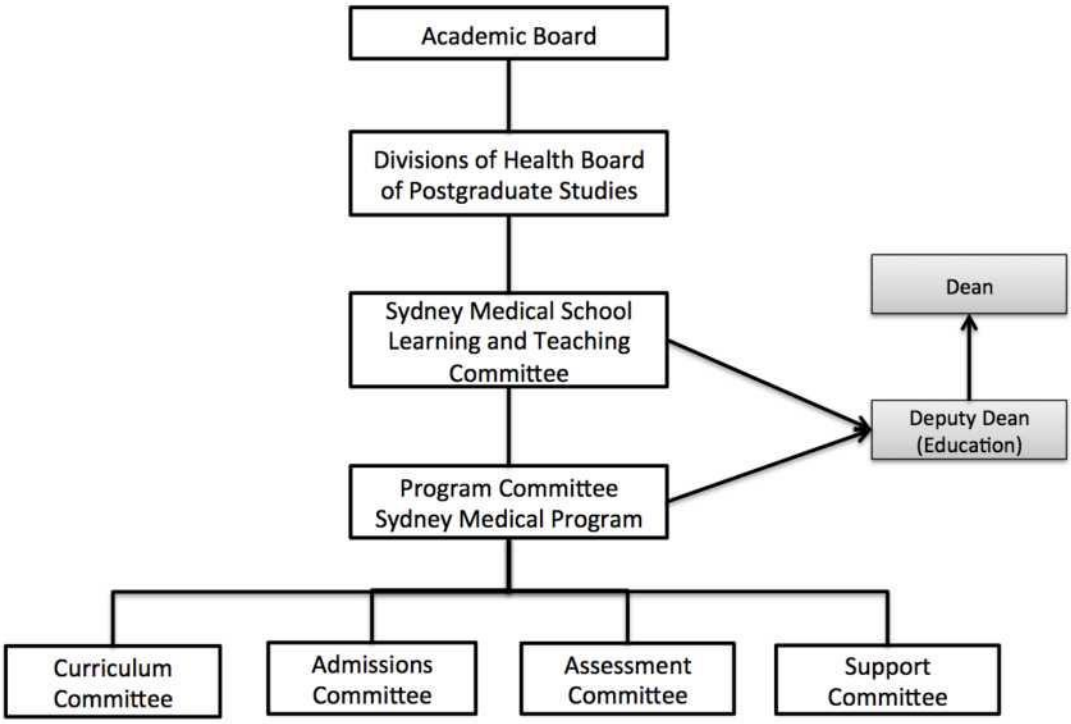
- Medical Education Office – also referred to as the Education Office, it is led by the deputy dean (education), who is also the associate dean (learning and teaching). The Education Office contains the Assessment and Evaluation Unit, which is led by the associate dean (assessment and evaluation); the Indigenous Health Education Unit (see below); education development and e learning. The Education office also contributes to the Faculty of Education and Social Work's Master of Education (health professional education) degree course.
- Indigenous Health Education Unit - led by the associate dean (Indigenous health), the Unit is responsible for the program's Indigenous health curriculum, the recruitment of Aboriginal and Torres Strait Islander students, and the support of these students in the program. The unit also implements medical program-related aspects of the University's Aboriginal and Torres Strait Islander integrated strategy, Wingara Mura - Bunga Barrabugu.
- Office of Global Health – led by the associate dean (international), its responsibilities in relation to the program include managing international student exchanges.
- University Department of Rural Health - based in Broken Hill, NSW, approximately 1,150 km west of Sydney. It takes short stay and long stay students in Stage 3 in disciplines and the community. It reports to the Deputy Dean (Education) as part of the rural portfolio.
- University Centre for Rural Health - adjacent to Lismore Base Hospital, about 700 km north of Sydney. Offers short and long stay placements of Stage 3 students and a rural placement. The structure will link more to the Rural Clinical School at Dubbo from 2016.
- Office of Research and Research Training - manages research strategy and reporting on research funding and performance. It supports higher degree research students, and has been involved with the School's MD Research Group.
- The Dean's Office.

The School has approximately 30 academic disciplines providing content-specific teaching, research and service leadership. Each has a discipline head, appointed by the Dean, and some members may be part of more than one discipline. The disciplines are allocated resources at school / clinical school level. There is no set structure for the discipline groups, some have committees, most meet several times a year with discipline representatives across the clinical schools, and all have informal working relationships with their discipline staff.

The School has a broad network of affiliated medical research institutes, each having an affiliation agreement with the University. Some are classified as university centres while others are independent organisations.

The committee structure supporting the program at the time of the team's visit is shown in Figure 3.

Figure 3: Committee structure



The Learning and Teaching Committee oversees learning and teaching across the School with representation from the program, the postgraduate coursework programs and the clinical schools. The Program Committee, chaired by the directors of the program, makes decisions overall about the program directions, its content and delivery. Beneath the Program Committee are four subcommittees. The Curriculum Committee is discussed at Standard 1.3. The Assessment and Progression Committee is responsible for monitoring design and execution of assessment processes, and convenes Examination Committees in each of Years 1-4. The Admissions Committee makes recommendations to the Program Committee on eligibility and entry criteria of students and selection. The Student Support Committee ensures coordination and coverage of student support processes.

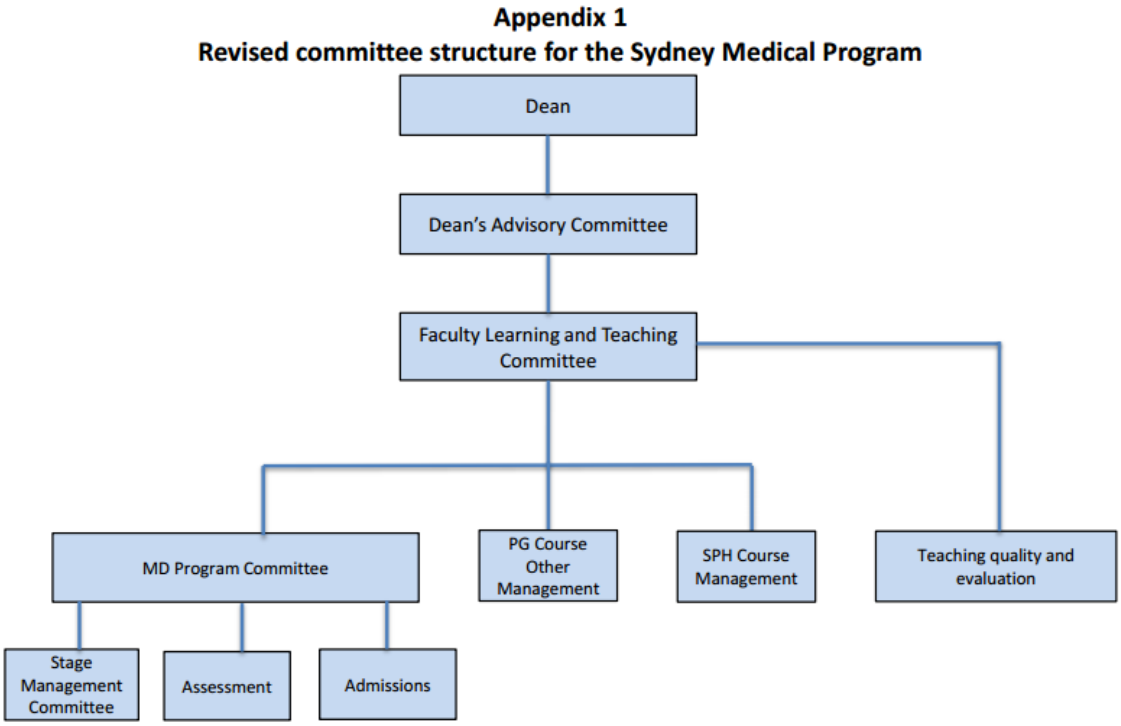
This chart does not include the four theme committees, the three stage committees, the discipline committees and the clinical school committees which also sit within this framework. It does not include evaluation which is linked into the Curriculum Committee and thence to the Program Committee. There was evidence of a duplication of responsibilities and roles within this further tier of governance, as well as the same individuals being represented on committees at multiple tiers. The team noted some confusion among staff as to respective reporting lines, and some inconsistencies regarding the reporting lines for committees.

The School's over-arching organisational chart at Table 1 depicts the operating structures within each clinical school and the other functional entities. With the exception of the Education Office (discussed at Standard 1.4), the committee structure

and organisational links within each of these entities, as well as their links to the program, were less discernible in the information provided and appear somewhat cumbersome. The team recommended the School review and streamline the committee structure, reducing duplication of responsibilities and refining reporting lines.

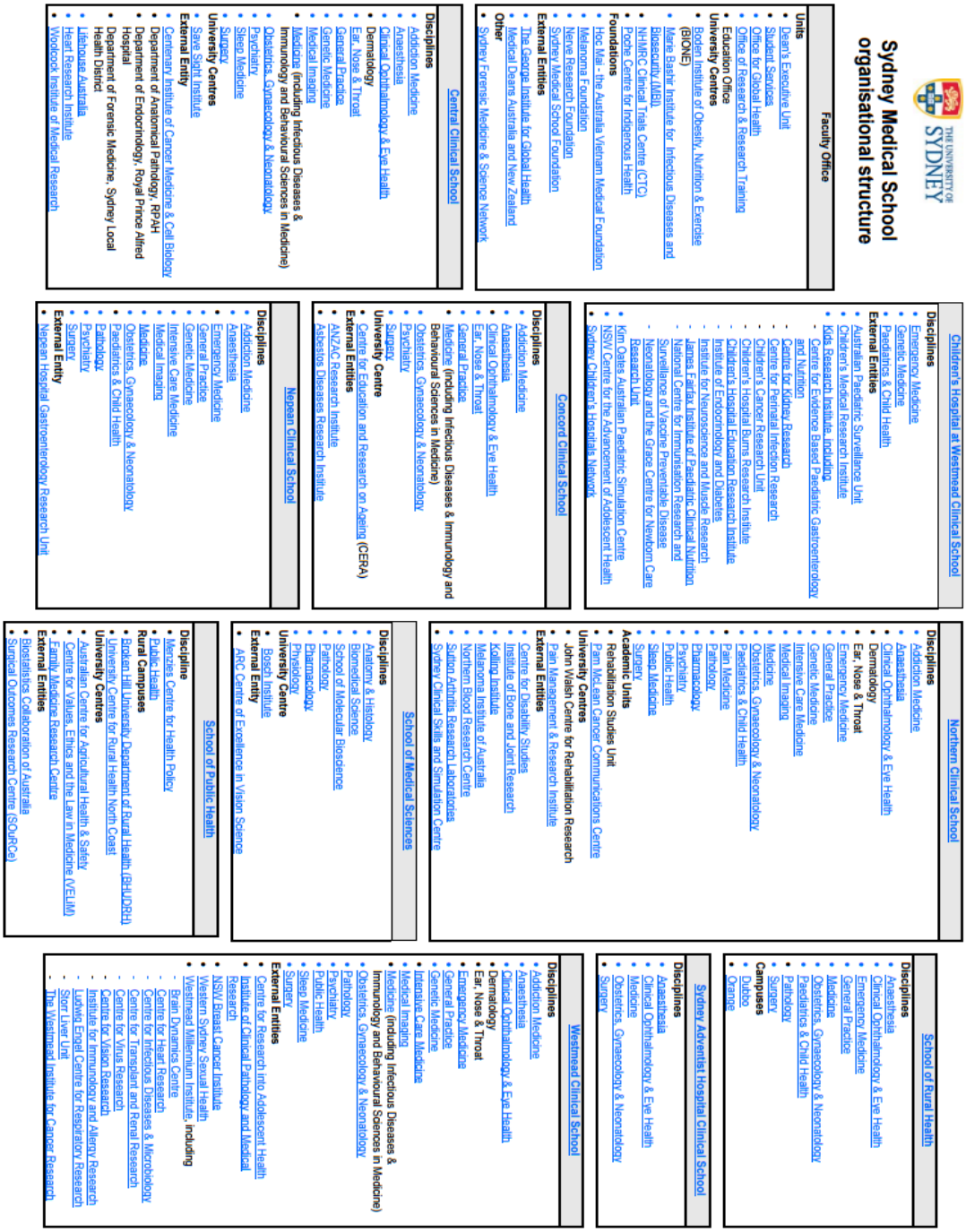
Since the assessment visit, in December 2015 the School advised it has reviewed and implemented a changed committee structure, whereby instead of four sub-committees the MD Program Committee now has three, being the Stage Management Committee, Assessment Committee and Admissions Committee as shown:

Figure 4: Revised committee structure



Given this change, the team recommends that the School evaluate whether the revised committee structure has reduced duplication of responsibilities and refined reporting lines for members. The revised terms of reference for the committees should also be provided.

Table 1: School organisational chart



The team found it clear from interviews at all levels of the organisation that the School delivers a structured, quality program, and delivers it well. The almost unanimous feedback was one of excellent communication and positive interactions and responsiveness with both the executive and the senior professional staff. High visibility of both the Dean and the school manager within the clinical school environment has clearly contributed to this outcome. In addition, collaboration, collegiality and a supportive environment across the three senior management roles within the Executive (Faculty Manager, Manager Strategy and External Affairs, and Operations and Project Manager) have been an additional major factor.

Efficiencies are being sought by the University and the Provost indicated at interview that a recent internal review of the School (under the regular cycle of reviews by the Academic Board) is likely to recommend reforms in the governance and structure of the School. This review was not finalised at the time of the team's visit and its recommendations and ultimate outcomes should be included in the next progress report to the AMC.

The School consults widely and regularly in relation to its purpose, curriculum, graduate outcomes and governance, including with the University executive, the leadership of other health faculties in the University of Sydney, the NSW Health Education and Training Institute, the leadership of the Local Health Districts and the Dean's Advisory Group comprising strategic thinkers from the broader community.

1.2 Leadership and autonomy

1.2.1 The medical education provider has autonomy to design and develop the medical program.

1.2.2 The responsibilities of the academic head of the medical school for the medical program are clearly stated.

The Dean has clear autonomy and overall responsibility and accountability in the design and development of the program. The Dean delegates authority first to the deputy dean (education) who is responsible for developing the School's broader learning and teaching strategies and policies and coordinating their implementation; and second, to the co-directors of the program who have primary responsibility for the development and implementation of the program.

There have been changes in the structure and personnel within both the School executive and the Program Committee in 2014/15. The deputy dean (education) commenced in April 2015; and the appointment of two new co-directors of the program (at the time of visit, one on an acting basis until the second appointee commenced in September 2015) has meant that job description statements and relative portfolio responsibilities are in development. The availability of two high calibre candidates both with strong medical education backgrounds and expertise led to the development of this new co-directorship model.

Subsequent to the visit, the School advised that one co-director has overall responsibility for Stages 1 and 2 and the other for Stage 3. Both co-directors participate in curriculum planning, evaluation, assessment, admissions and student liaison. The team requests that the School report in future on how effectively the co-directorship model is functioning.

The School is largely self-sufficient in its teaching resources for the program, drawing on both academic staff and affiliates. The only significant exception is the teaching of biochemistry. This is provided via a cooperative arrangement with the School of Molecular Bioscience in the Faculty of Science.

The 2015 Academic Board review of the School queried whether the School of Medical Sciences might better sit within the Faculty of Science. This School makes a major

contribution to the program, particularly in Stages 1 and 2 delivering anatomy, histology and embryology, physiology and pharmacology across both the medical program and the Bachelor of Medical Science program. Care would be needed in any future restructure to ensure the ongoing integrity of the program with respect to its highly integrated curriculum design, both horizontally and vertically, which relies heavily on collaboration and co-operation between the Medical School, the School of Public Health and the School of Medical Sciences.

The vice chancellor indicated that the University's proposed radical reform to its undergraduate program, as reported in the media, leading to a core set of university-wide graduate attributes will not directly impact the program.

The relatively long number of teaching weeks in each of the academic years of the program, together with its integrated curriculum, does not correspond well with University semesters or with its conventional unit-of-study structures. This has posed administrative challenges but has not had any significant impact in the design or delivery of the program. The University (centrally) and the School are working on a joint process to improve the compatibility of the program with the University calendar and the units-of-study structure.

1.3 Medical program management

1.3.1 The medical education provider has a committee or similar entity with the responsibility, authority and capacity to plan, implement and review the curriculum to achieve the objectives of the medical program.

1.3.2 The medical education provider assesses the level of qualification offered against any national standards.

The program is led by two co-directors who co-chair the Program Committee and report to the deputy dean (education). They are operationally supported by the Education Office, which includes the coordinator of Foundational Studies (Stages 1 and 2), the coordinator of Clinical Studies (Stage 3) and the senior lecturer in Curriculum; the Assessment and Evaluation Unit; and curriculum support officers for Stages 1, 2 and 3.

The Program Committee and its sub-committees are responsible for planning, implementation and review of the curriculum but ultimately any significant decisions must also involve the School's Learning and Teaching Committee which is advisory to the dean. At the time of the visit, the then Curriculum Committee was chaired by the co-directors of the program and was responsible for advising and making recommendations to the Program Committee on all aspects of the curriculum, and approval of minor variations at unit of study level. Subsequent to the visit, the committee restructure has meant this curriculum function is now the remit of the Stage Management Committee (refer to Standard 1.1).

The School advised that the curriculum is undergoing a process of refreshment but the overall scope or timetable was not apparent to the team. Since the visit, the School reported that the curriculum refreshment will include the pedagogic approach to

learning and teaching, and the constructive alignment of learning outcomes with teaching and assessment. The curriculum review will be led by the co-directors of the program over a two-year period for a planned 2018 implementation. The School advised that since the team's visit it has commenced stakeholder involvement with patients, students and academic staff regarding the review. The curriculum will be a major topic at the School's staff retreat in February 2016. The team looks forward to updates on the curriculum review in future progress reports.

The program was revised from 2014 onwards to deliver a Level 9 Masters program rather than a Level 7 Bachelors program, with an MD degree now offered in place of the MBBS. The University assessed the Doctor of Medicine program against the Australian Qualifications Framework requirements as a Level 9 (Masters degree - extended). The Senate and the Academic Board of the University in 2013 approved the introduction of the MD degree to replace the MBBS. The changes made to the curriculum are noted at Standards 3.1 and 3.2.

1.4 Educational expertise

1.4.1 The medical education provider uses educational expertise, including that of Indigenous peoples, in the development and management of the medical program.

The comprehensively resourced and well-organised Education Office is exemplary. This is reflected in a culture of medical education excellence and scholarship which has resulted in extraordinary productivity that permeates all levels of the program across all sites.

There is considerable depth in terms of educational expertise throughout the program with an impressive number of individuals holding Graduate Certificates, Masters degrees or doctorates in either medical education or tertiary education more broadly. The educational research output of the School is therefore, not surprisingly, extensive and diverse, and individual members of the academic staff supervise educational research students at Masters degree and doctoral levels. Although the Education Office has strong research interests, especially in the areas of assessment and evaluation, it is only one contributor to this large output. A substantial amount of research is done by units and individuals throughout the School, especially in the clinical schools.

The delivery of the Indigenous health content of the program reflects both innovation and the exceptional commitment of the associate dean (Indigenous health) who leads the Indigenous Health Education Unit. The Unit's role includes the development and delivery of the Indigenous health curriculum in the program (unit staffing is discussed at Standard 1.8). Supervision of MD projects is also provided, with ten offered in 2015. As the School has few Indigenous staff, teaching of some topics in Indigenous health is provided by guest lecturers from a range of Aboriginal and Torres Strait Islander organisations, and from other universities.

The Poche Centre sits within the Sydney Medical School structure as a university centre. The focus of the Sydney Poche Centre is to engage Indigenous people more in medicine and health disciplines, and its key work lies in establishing its research and key thinker initiatives. Its staff are primarily involved in Poche Centre programs rather than

delivery of teaching in the medical program. Its input into the program includes facilitating fly-in fly-out placements with Aboriginal communities for selected students (4 – 23 students per year since 2008), placements in Aboriginal Medical Services, and it may in future offer MD project supervision. Poche also offers key-thinker forums that students are welcome to attend. While Poche's main focus is not the medical program, the team considers that its presence in the School is valuable.

1.5 Educational budget and resource allocation

1.5.1 The medical education provider has an identified line of responsibility and authority for the medical program.

1.5.2 The medical education provider has autonomy to direct resources in order to achieve its purpose and the objectives of the medical program.

1.5.3 The medical education provider has the financial resources and financial management capacity to sustain its medical program.

The School has control of and responsibility for its University budgets that provide resources for the program. The deputy dean (finance) reports to the Dean who has overall responsibility. The School's finance director is shared with other faculties in the Division of Health, and is also a member of the central finance team.

The School allocates funds on an annual basis to the clinical schools, medical sciences, public health and other School groups. Clinical school funds are based on the number of students, and number of days in the school. Clinical schools can generate income internally (up to $100K) from external student electives and venue hire.

These budgets are approved annually by the Central University Budget Review Team, which is led by the vice chancellor, upon the recommendation of the School's leadership team.

At the time of the assessment, the School was projecting an operating deficit for 2015 greater than $10M. The medical program itself essentially breaks even, with the School contributing to the $25M required for the research budget annually. A series of initiatives are being pursued to reduce costs and increase revenue. These include improvements in organisational structure and associated efficiencies in academic and professional staffing, new initiatives in postgraduate course-work education, improved research block-grant performance, raising funds from philanthropic sources and continuing success in consultancy activities.

Accordingly, operating margins are projected to reduce by more than half each year from 2017 onwards, reaching around $2-3M by 2020. Assurances were received from both the Dean and the vice chancellor that these school-wide efficiencies will not impact on the quality or delivery of the program. The team found no compromise in quality of the program despite the budget pressures.

Major capital developments, such as the future developments at Westmead Health Education Precinct that will benefit medical and allied health students, are funded centrally by the University.

1.6 Interaction with health sector and society

1.6.1 The medical education provider has effective partnerships with health-related sectors of society and government, and relevant organisations and communities, to promote the education and training of medical graduates. These partnerships are underpinned by formal agreements.

1.6.2 The medical education provider has effective partnerships with relevant local communities, organisations and individuals in the Indigenous health sector to promote the education and training of medical graduates. These partnerships recognise the unique challenges faced by this sector.

The School has forged strong partnerships with the Local Health Districts (LHDs) and private health-care organisations in which medical students receive clinical training. It has comprehensive student placement agreements or affiliation agreements with all of its LHDs in NSW; with the Adventist Health Service (which operates the Sydney Adventist Hospital); and with private health-care organisations where students are placed, such as Ramsay Healthcare. These agreements outline the respective responsibilities of each organisation in supporting the teaching, training and research agenda.

Clear evidence was provided of widespread involvement of the School's academic staff in the context of governance within these health organisations. High level interaction was evident in several settings. For example, the chief executive of the Sydney LHD was joining the board of the Central Clinical School, and the Dean sits on the executive of the Sydney LHD. Similar links were seen in Westmead Clinical School, with the associate dean on the clinical board of the LHD and the general manager of the Westmead Hospital holding a monthly, standing appointment in the clinical school committee meetings.

There has been impressive collaboration in research and development which was recently cemented by the establishment of a joint enterprise known as Sydney Health Partners. This includes the University of Sydney, five major teaching hospitals (Royal Prince Alfred, Concord, Westmead and Royal North Shore Hospitals and The Children's Hospital at Westmead) and their respective LHDs, and the medical research institutes affiliated with the University and partner LHDs. Research and teaching is embedded in the strategic plan of every LHD. Earlier this year Sydney Health Partners became the only grouping in NSW to be designated as one of four Advanced Health Research and Translation Centres in Australia.

At the senior level of NSW Ministry of Health, frustrations were expressed with respect to some aspects of the relationship with the School. The team consider that improved lines of communication could resolve misunderstandings with respect to current and projected student numbers and demand for clinical placements, the implications of the changes from an MBBS degree to the MD, optimal utilisation of the ClinConnect system for planning student clinical placements and priorities in improving the transition of medical students to internship.

The School does not have a strong track record of formal direct partnerships with Aboriginal and Torres Strait Islander communities or organisations. The connections are largely at an individual rather than a community or organisational level. As noted at Standard 1.4, the teaching of Indigenous health relies heavily on Indigenous and non-Indigenous individuals who have appropriate expertise and are willing to contribute to the education and supervision of students.

Stronger relationships with Aboriginal communities have been developed in rural clinical training environments. For example, the agreement between the Rural Clinical School in Orange and the Orange Aboriginal Medical Service, which provides for students to attend clinics and between the University Department of Rural Health in Broken Hill and community-based health facilities at Wilcannia and Minindee, which serve populations with high numbers of Aboriginal people. While the Poche Centre advised it had relationships with 25 Aboriginal communities, it is careful not to over-burden communities with large numbers of students. It noted relationships can take at least three years to develop before placing students.

The team recommends the School commit to further development of partnerships with Aboriginal communities.

1.7 Research and scholarship

1.7.1 The medical education provider is active in research and scholarship, which informs learning and teaching in the medical program.

The School has an enormous and geographically diverse research portfolio, and the research performance of the School and the broader Faculty is exceptional. The School attracted almost $215 million in research grants and produced more than 3,000 publications in 2014. Over 1,600 staff were actively involved in research and more than 1,100 students were enrolled in higher-degree research programs.

The School has three associate deans (research), one of whom attends the Executive meetings as required, and the Research Committee has been involved with the MD Working Group in setting up the MD projects. The transition from an MBBS to an MD has further strengthened the way in which research is informing the teaching and learning environment for all students.

The integration of teaching, training and research in the clinical teaching environment has been affirmed by the aforementioned formation of Sydney Health Partners and having it designated by the National Health and Medical Research Council as an Advanced Health Research Translation Centre.

The Charles Perkins Centre on main campus is viewed as a successful model for the future of research. Researchers are highly satisfied that the new research and teaching building has led to great cross-fertilisation with other faculties and provided high visibility of research. Students regularly use the Centre for learning, which has led to increased interactions with researchers. There is also a Charles Perkins Centre at Nepean, creating a network that breaks down geographical barriers.

1.8 Staff resources

1.8.1 The medical education provider has the staff necessary to deliver the medical program.

1.8.2 The medical education provider has an appropriate profile of administrative and technical staff to support the implementation of the medical program and other activities, and to manage and deploy its resources.

1.8.3 The medical education provider actively recruits, trains and supports Indigenous staff.

1.8.4 The medical education provider follows appropriate recruitment, support, and training processes for patients and community members formally engaged in planned learning and teaching activities.

1.8.5 The medical education provider ensures arrangements are in place for indemnification of staff with regard to their involvement in the development and delivery of the medical program.

The School is comprehensively staffed to deliver the program. Over 800 academic staff are on the University payroll and are ably assisted by 101 external staff with adjunct titles, 1263 with clinical titles and 329 with conjoint titles. For the academic staff, hospital and academic components of each academic's position are defined as fractions of a full-time equivalent (FTE) position at the time of recruitment and these fractions are usually respected quite rigorously.

The professional staff noted that the School has lost approximately 40 FTE professional staff largely due to centralisation of services. The staff commented they are in a maturing phase as they consolidate and indicated future challenges were to be faced in planned centralisation of higher degree research enrolments. The clinical schools generally maintain adequate professional staff.

The total number of full-time equivalent Indigenous academic staff in the School was 2.8. The corresponding figure for Indigenous professional staff was 5.8. These are predominantly within the School of Public Health and the Poche Centre. The Indigenous Health Education Unit is relatively small in proportion to its broad responsibilities (see outline under 1.1 above) and comprises a total of 1.8 staff FTE, with one academic lead and a professional staff member.

The team recognises the recent appointment of an Indigenous community liaison officer within the University Centre for Rural Health in Lismore. Allocation of increased resources, including increasing Indigenous academic development and staff appointments, are recommended by the team to support the School's progress in all matters related to Indigenous health and allow for succession of key staff.

The School indicated in its *Indigenous Health Systematic Review* that a cultural training professional development program will be rolled out to staff in keeping with university strategy, and the team applauds this plan and looks forward to updates in progress reports.

All University of Sydney staff and affiliates are fully indemnified while performing approved, accepted, directed or regular duties for or on behalf of the University.

1.9 Staff appointment, promotion and development

1.9.1 The medical education provider's appointment and promotion policies for academic staff address a balance of capacity for teaching, research and service functions.

1.9.2 The medical education provider has processes for development and appraisal of administrative, technical and academic staff, including clinical title holders and those staff who hold a joint appointment with another body.

Standardised appointment and promotion policies and procedures are in place together with a wide range of staff development opportunities.

Performance appraisal of all academic and professional staff is performed at least once each year. Each staff member has a supervisor and an advisor. The supervisor's role is to manage the overall performance of staff. The advisor's role is to mentor staff, providing guidance that assists them to attain performance standards and to establish and pursue career goals. Objectives for achievement by academic staff are in the areas of research and scholarship, learning and teaching, and service. Objectives for professional staff are in the areas of client focus, learning and innovation, resource management and quality, and teamwork and leadership.

The School's sub deans, for example, play a vital role in student support and remediation without being remunerated for this time-consuming role. The sub dean role is recognised in the School's productivity assessment system and considered in academic promotions. The School provides education on student support to these selected staff and advised it is ensuring a succession plan is in place.

Adjunct titles are awarded for fixed terms (typically three years) and may be renewed if the titleholder's relationship with the University continues for more than three years. At the time of renewal, an adjunct titleholder may apply for a different title e.g. an adjunct senior lecturer may apply to be an adjunct associate professor. If the adjunct title holder can demonstrate an appropriate level of professional and/or academic standing and service to the University, the higher title may be awarded.

Promotion criteria and processes for clinical and conjoint title holders are the same as those for 'regular' academics.

2 The outcomes of the medical program

2.1 Purpose

2.1.1 The medical education provider has defined its purpose, which includes learning, teaching, research, societal and community responsibilities.

2.1.2 The medical education provider's purpose addresses Aboriginal and Torres Strait Islander peoples and/or Maori and their health.

2.1.3 The medical education provider has defined its purpose in consultation with stakeholders.

2.1.4 The medical education provider relates its teaching, service and research activities to the health care needs of the communities it serves.

The School has defined its purpose in its mission statement, being:

> To improve the health and wellbeing of people in Australia and elsewhere by educating and supporting to the highest level compassionate clinicians, medical scientists, health professionals and researchers whose work forms the basis of advances in health.

The School advised that its areas of commitment have evolved in the last ten years in the areas of international health and the importance of research and research skills in health and medicine. It reported that it plans to finalise a new mission statement in 2016.

The mission statement includes 'improving the health and wellbeing of people in Australia and elsewhere'. The School considers that this includes the health and wellbeing of Aboriginal and Torres Strait Islander peoples. The approved AMC standards require that the purpose specifically "addresses Aboriginal and Torres Strait Islander peoples and/or Maori and their health". The team finds that the School's purpose requires closer alignment to the AMC standard.

The School notes that it undertakes consultation with stakeholders in forums including academics, professional staff, heads of medical research institutes, affiliates and student representatives. The School consults with the Local Health Districts, and advised it canvassed future directions for the School with senior officials in the Australian Government Departments of Health, and Education and Training; and agencies such as the National Health and Medical Research Council and the Therapeutic Goods Administration. Additionally, the large alumni network has an avenue for contribution to the School and program's purpose and objectives.

The main forum for formally-structured input from the broader community into the directions of the School is through the Dean's Advisory Group, comprising community members with expertise in the corporate world, business, management and the law. Informal community and health consumer feedback arises from School members involved with patients, from School led health promotion activities and contact with potential students.

The team notes that the School lacks a relationship with health consumer organisations, and recommends that the School implement formal mechanisms to enable consumer input and consultation into its teaching, service and research activities.

2.2 Medical program outcomes

A thematic framework is used to organise the AMC graduate outcomes into four domains:

1 *Science and Scholarship: the medical graduate as scientist and scholar*

2 *Clinical Practice: the medical graduate as practitioner*

3 *Health and Society: the medical graduate as a health advocate*

4 *Professionalism and Leadership: the medical graduate as a professional and leader.*

2.2.1 *The medical education provider has defined graduate outcomes consistent with the AMC Graduate Outcome Statements and has related them to its purpose.*

2.2.2 *The medical program outcomes are consistent with the AMC's goal for medical education, to develop junior doctors who are competent to practise safely and effectively under supervision as interns in Australia or New Zealand, and who have an appropriate foundation for lifelong learning and for further training in any branch of medicine.*

2.2.3 *The medical program achieves comparable outcomes through comparable educational experiences and equivalent methods of assessment across all instructional sites within a given discipline.*

Since the last major review of the program in 2006/7 there has been considerable development in the content and breadth of the curriculum to maintain a contemporary and relevant syllabus. The expected graduate outcomes are clearly communicated to students and tutors alike.

The program's 24 graduate outcomes are grouped under four themes that correspond to the AMC's four domains. The themes are Basic and Clinical Sciences (five outcomes); Patient and Doctor (nine outcomes); Population Medicine (five outcomes); and Personal and Professional Development (five outcomes). The School refined some of its graduate outcomes following the 2006/7 review, and following reviews of its Population Medicine, and Personal and Professional Development themes in 2009/10 and 2011/12 respectively. Additional refinements arose from the change to the MD in 2014 and in clinical learning in 2015.

Although the AMC's Graduate Outcome Statements underwent extensive review in 2012, the program's graduate outcomes have not been updated to reflect these changes, resulting in several areas of non-alignment. This relates particularly to sections of AMC Domain 2 (Clinical Practice: the medical graduate as practitioner) and Domain 3 (Health and Society: the medical graduate as a health advocate). Areas not defined and/or not fully aligned with the AMC Graduate Outcomes Statements relate to the safe prescription of medicines, palliative care, graduate responsibilities in health advancement and advocacy and the health and wellbeing of Indigenous peoples.

The specific gaps in alignment that require either updating or specific inclusion are as follows:

- AMC Graduate Outcome Statement (GOS) 2.11 - *Prescribe medications safely, effectively and economically using objective evidence. Safely administer other therapeutic agents including fluid, electrolytes, blood products and selected inhalational agents.*

None of the program graduate outcomes are specific in this regard, referring to management in general terms. The safety and quality components of the curriculum are not well-defined as a consequence, resulting in patchiness in its delivery with some clinical schools relying on the fact that students are being taught within an environment that has a focus on safety and quality, whereas others include well-developed lectures and seminars in this area.

- AMC GOS 2.13 - *Describe the principles of care for patients at the end of their lives, avoiding unnecessary investigations or treatment, and ensuring physical comfort, including pain relief, psychosocial support and other components of palliative care.*

There are no program graduate outcomes on palliative care.

- AMC GOS 3.1 - *Accept responsibility to protect and advance the health and wellbeing of individuals, communities and populations.*

The School advised that this requirement seems beyond the scope of a medical program.

- AMC GOS 3.3 - *Communicate effectively in wider areas, including health advocacy, teaching, assessing and appraising.*

The School advised that public health communication and health advocacy is currently a gap in the Sydney graduate outcomes. However, the team was satisfied that this outcome is covered within the curriculum content.

- AMC GOS 3.4 – *Understand and describe the factors that contribute to the health and wellbeing of Aboriginal and Torres Strait Islander peoples and/or Maori, including history, spirituality and relationship to land, diversity of cultures and communities, epidemiology, social and political determinants of health and health experiences.*

Although there is an entire core curriculum statement on Indigenous health, there is currently an absence of a graduate outcome specific to Aboriginal and Torres Strait Islander health.

- AMC GOS 3.6 – *Describe a systems approach to improving the quality and safety of health care.*

As noted under 2.11, Sydney graduate outcomes do not refer to safety and quality of health care. However, the team was satisfied that this outcome is largely covered in the curriculum.

- AMC GOS 4.7 – *Demonstrate awareness and explain the options available when personal values or beliefs may influence patient care, including the obligation to refer to another practitioner.*

The School advised that although its outcome statements undoubtedly cover the same ground as GOS 4.7, this is not explicitly mentioned.

- AMC GOS 4.10 – *Describe and apply the fundamental legal responsibilities of health professionals especially those relating to ability to complete relevant certificates and documents, informed consent, duty of care to patients and colleagues, privacy, confidentiality, mandatory reporting and notification. Demonstrate awareness of financial and other conflicts of interest.*

The School's graduate outcomes only partially cover this content.

As part of the curriculum refreshment process (refer to Standard 1.3), the School is planning revision of its graduate outcomes over the next one to two years to keep pace with changes already incorporated into the curriculum, and to ensure better alignment with AMC standards. The team looks forward to the outcomes of this review.

In alignment with the AMC standards, the School advised that the program's overall philosophy remains to "produce safe, competent doctors who bring high professional values to their practice, are imbued with a spirit of enquiry, appreciate and promote the contribution of research to health and medicine, and relate their practice to its local, national and international population context".

The team considers that the program outcomes and objectives combined do allow for competent graduates. However, with respect to safety and quality issues there is considerable variability in approach and content across the clinical schools (refer to Standard 3.2).

Anecdotally, feedback from hospitals employing Sydney graduates reported that the program produces safe and competent doctors they are pleased to employ. Standard 6 comments further on evaluation of graduates. The School indicated that its evolving 2015-2020 Strategic Plan includes a commitment to determine the effectiveness of the training provided in this regard.

The Assessment and Evaluation Unit provided the team with solid evidence that the program provides comparable educational experiences and equivalent methods of assessment across all instructional sites within a given discipline.

The School's strong discipline model, in Stage 3 in particular, promotes communication across sites by discipline around education and calibration in assessment. The School stated that students follow the same curriculum, use the same materials and systems, and undertake the same assessments. While clinical site demographics and clinical experiences vary, the School evaluation shows comparability at different points in the program (further detail at Standard 6.2).

3 The medical curriculum

3.1 Duration of the medical program

The medical program is of sufficient duration to ensure that the defined graduate outcomes can be achieved.

The program is four-years in duration, and the academic year varies from 37 – 42 weeks, as outlined:

Table 2: Duration of academic years

Academic year	Number of timetabled teaching and/or assessment weeks	Number of weeks of recess** during the academic year
1	39	4
2	37	5
3	42	4
4	38*	4
Total	156	17

* Includes the eight-week Elective Term **Includes study breaks prior to assessments

The team found the program duration was adequate to ensure that the graduate outcomes can be achieved.

The program is structured as a foundational phase in Years 1 and 2 (known as Stages 1 and 2), and a clinical phase in Years 3 and 4 (Stage 3). Stages 1 and 2 are structured in ten blocks of 4 – 11 weeks duration, with Block 1 serving as an introduction to the basic medical sciences and an orientation to health care, and the remaining blocks cover an organ system. Blocks 4 and 10 focus on haematology and oncology/palliative care and are taught at the various clinical schools. Plans are being considered to reorder the blocks so that haematology and oncology are consecutively placed as the penultimate and ultimate blocks of Stage 2.

In Stage 3, students are based at their clinical school and complete discipline-focused blocks of eight weeks. The core blocks are medicine in which students complete one block in Year 3 and one in Year 4, and surgery and acute care (also referred to as critical care/surgery) of which students complete either a critical care or surgery block in Year 3, and in Year 4 do the block not done in Year 3. The specialty blocks are psychiatry and addiction medicine, child and adolescent health, the community (general practice) block, and perinatal and women's health. Students also undertake an elective, and all complete Year 4 with a pre-internship block known as *PrInt*.

The 2006/7 curriculum review led to Stage 3 being restructured to ensure all students undertake a medicine or surgery block at the beginning of Year 3 and at the end of Year 4, in addition to other points in Stage 3. This has enabled students to commence internship with recent training in medicine or surgery. This change did not alter the duration of Years 3 or 4.

Table 3: Stage 3 blocks by stream

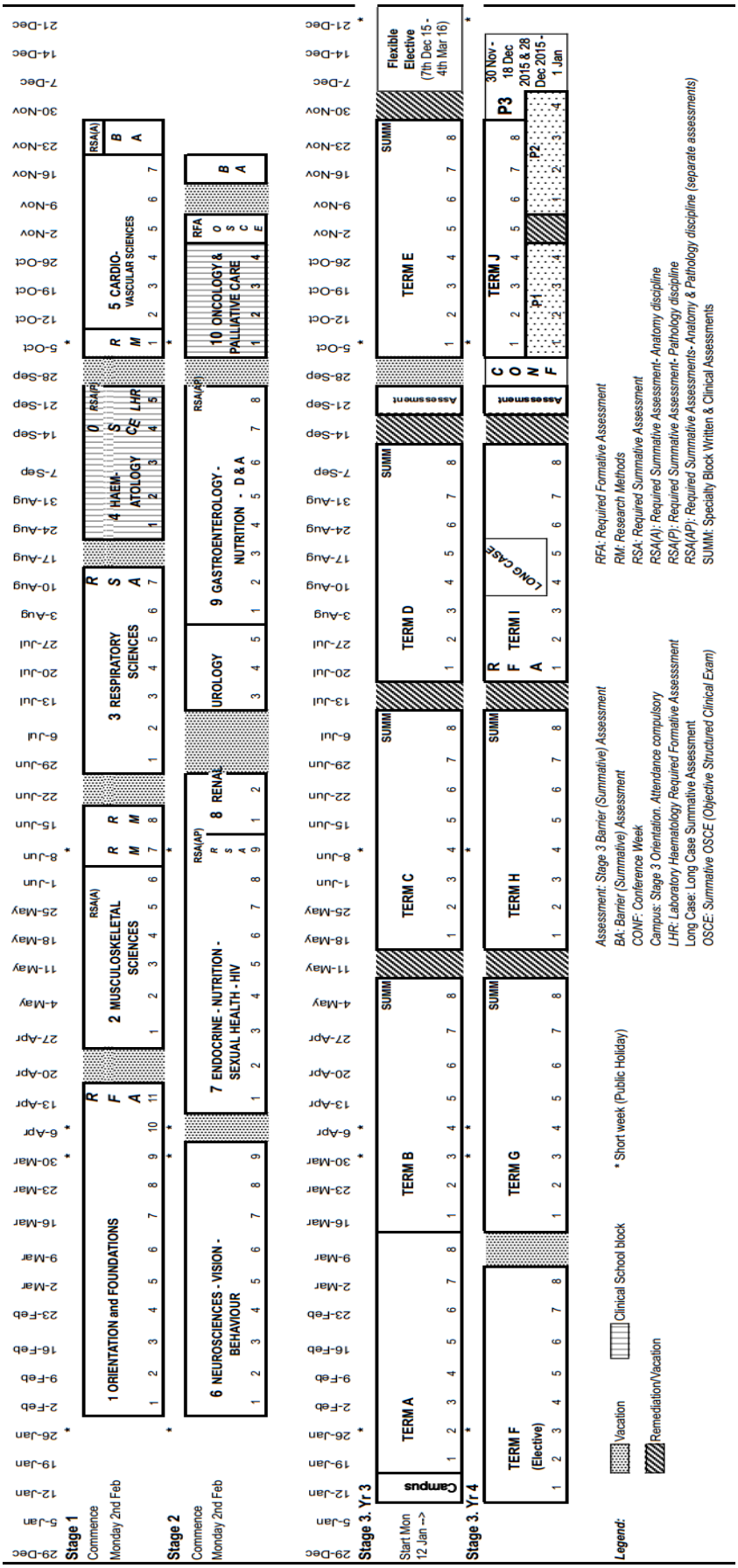
Distribution of Blocks across the Terms									
Stream	Term A	Term B	Term C	Term	Term E	Term F	Term G	Term H	Term I
1	CC/S	CR	MED(3	PAAM	CAH	Elective	MED(4)	PWH	SURG
2	MED(3)	PAAM	SURG	CR	PWH	Elective	CC/S	CAH	MED(4)
3	MED(3)	SURG	CR	PWH	PAAM	Elective	CAH	CC/S	MED(4)
4	SURG	MED(3	PAAM	CAH	CR	Elective	PWH	MED(4)	CC/S

MED(3)=Medicine, Year 3; MED(4)=Medicine, Year 4; SURG=Surgery; CC/S=Critical Care/Surgery; PAAM=Psychiatry and Addiction Medicine; PWH=Perinatal and Women's Health; CAH=Child and Adolescent Health; CR=Community rotation.

Each stage of the program is of sufficient duration and content to prepare students for the next. In Stages 1 and 2, students do adequate work at clinical sites, within the bounds of specific assignments, to prepare them for safe and effective instruction at their clinical schools in Stage 3. Stage 3 is well planned, makes effective use of the various educational opportunities at the clinical schools and is of sufficient duration to meet the standard.

The 2015 program duration and structure is illustrated in Figure 5.

Figure 5: Program duration and structure



The School judiciously employs barrier examinations and other assessments, which makes it unlikely that any student would progress faster than his/her ability to reach the required levels of competence required of an intern. The pre-intern block has been established prior to graduation, which also enables instructors to detect and flag any minor deficiencies in a student's preparation for internship.

The program includes adequate provision for those students who require more than the minimum four years of instruction due to external circumstances or the simple need for some additional time to acquire the requisite understanding and clinical skills to complete the program. Incoming students from a non-science background are invited to attend additional weekly evening tutorials.

3.2 The content of the curriculum

The curriculum content ensures that graduates can demonstrate all of the specified AMC graduate outcomes.

3.2.1 Science and Scholarship: The medical graduate as scientist and scholar.

The curriculum includes the scientific foundations of medicine to equip graduates for evidence-based practice and the scholarly development of medical knowledge.

3.2.2 Clinical Practice: The medical graduate as practitioner.

The curriculum contains the foundation communication, clinical, diagnostic, management and procedural skills to enable graduates to assume responsibility for safe patient care at entry to the profession.

3.2.3 Health and Society: The medical graduate as a health advocate.

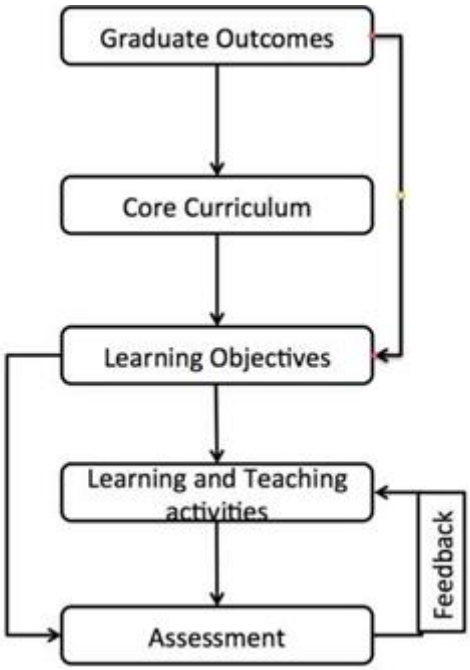
The curriculum prepares graduates to protect and advance the health and wellbeing of individuals, communities and populations.

3.2.4 Professionalism and Leadership: The medical graduate as a professional and leader.

The curriculum ensures graduates are effectively prepared for their roles as professionals and leaders.

The program's curriculum is based on five elements, as shown in Figure 6.

Figure 6: Curriculum components



The program has four broad curriculum themes present in all four years: Basic and Clinical Sciences; Patient and Doctor; Population Medicine; and Personal and Professional Development. The program's 24 Graduate outcomes have been mapped against the themes.

The core curriculum is reflected in a series of 30 core curriculum statements that are discipline or organ specific (i.e. cardiology, musculoskeletal system, genetic medicine, community) that specify the knowledge, skills and attitudes that a student requires on graduation, with each statement ranging in length from approximately 1 – 5 pages.

Learning objectives are required for each learning activity as discussed at Standard 3.3; and learning and teaching activities (Standard 4) and assessment (Standard 5) components follow.

The AMC domain Science and Scholarship corresponds to the program's Basic and Clinical Sciences theme, which comprehensively and systematically defines the exposure of students to learning the sciences underlying the practice of medicine. Beginning with an eleven week Foundation block in Stage 1, instruction in science and scholarship covers core biomedical knowledge, including anatomy, histology, embryology, biochemistry, physiology, pharmacology, microbiology, pathology and immunology in the context of human health, development and disease.

The target for basic and clinical sciences in Stages 1 and 2 is a solid understanding of human biology and pathology. In Stage 3, learning in the basic and clinical sciences theme builds upon the foundation from Stages 1 and 2 and continues with an additional focus on the management and prevention of health problems across all specialities, with further development of diagnostic skills based on a deeper understanding of human biology and pathology.

The School has strengthened its basic medical sciences curriculum since the 2006/7 curriculum review in Stages 1 and 2 in anatomy, microbiology and immunology, and in Stage 3, in pathology. Ongoing evaluation of the curriculum is consistent with effective learning by most students. The School indicated it is working to improve its instruction in cell biology teaching.

The School has invested considerable effort into the design and implementation of the MD component of the program, which commenced in 2014 for the Stage 1 cohort. The major changes have been the addition of an extra week to both Stages 1 and 2 and a broadening of the curriculum with respect to research methods and philosophy with the requirement for all students to complete a research project. The project may be the development of a full proposal; a systematic literature review; a policy paper or similar as relevant to health / medicine; or a research project not requiring a full ethics committee proposal, such as an existing project, a low-risk project, or a project using publicly available data.

The rollout of the MD research project is now in its first cycle and its impact on the core curriculum has been minimal. Ongoing evaluation will be completed by the end of the first cycle in 2017.

The team heard concerns that there may be disincentives for students to move to the rural sites, given their projects start in Stage 2 in Sydney. While the Rural Clinical School has offered its own, relevant research projects for consideration, interest has been limited. The School advised that rural supervisors generously supervise metropolitan students and that extended-rural students are advised to complete any location-dependant aspects of project work before Stage 3. The team consider that the School explore why interest appears limited in the rural MD projects (refer also to Standard 8.3).

Overall, the team is satisfied with the MD project implementation and is assured that adequate projects and supervisors will be available to the full cohort. The MD program has attracted clinicians into the program who had not been interested in teaching and will further expand the knowledge horizons of students. Updates in future progress reports will be of interest.

The Clinical Practice domain is covered comprehensively by the Patient and Doctor theme. Communication, diagnostic, patient-management and procedural skills are effectively developed through the School's commendable teaching, based largely at the clinical schools. Curriculum content is documented in the Patient and Doctor handbooks and Clinical Skills handbooks. Problem-based learning sessions in Stages 1 and 2 and Clinical Reasoning Sessions in Stage 3 provide the framework for students to develop competence in clinical reasoning and decision making. Basic and practical clinical skills are all taught in the clinical schools in Stages 1, 2 and 3.

Responsibility for patients in terms of patient safety and quality of care is a theme that is reinforced regularly throughout the learning process and diligence is exercised to ensure that students are placed only in situations for which they are ready. As stated at Standard 2.2, the program graduate outcomes do not refer to safety and quality of

health care. The team was satisfied that safety and quality was largely covered in the curriculum, although found there to be considerable variability in approach and content across the clinical schools. Given the fundamental role of safety and quality systems in delivering a high standard of care, the team considers that the safety and quality agenda be explicitly included in formal teaching and assessment throughout the program, rather than being assumed as covered in the clinical setting. Increased formalisation of outcomes and alignment to curriculum content is recommended.

The Health and Society domain is contained within the program's Population Medicine theme, which the School considers the interface between public health and clinical medicine. In Stages 1 and 2, the blocks include didactic sessions on public health issues relating to that body organ system and its diseases. Clinicians frequently provide teaching in a clinical context around epidemiology and disease-specific prevention. Since the last accreditation, the School has redesigned its Population Medicine teaching in Stage 3, linking it with clinical learning.

The team was somewhat surprised by the responsibility for teaching evidence-based practice, statistics and critical appraisal of the literature being more a part of the MD project than as a component of the Population Medicine theme. The School advised that evidence-based medicine is mostly taught by School of Public Health staff while sitting structurally in the Patient and Doctor theme. The team was satisfied that this structure is effective in exposing all students to these and related subjects.

In Year 3, the Integrated Population Medicine assignment has been a main curriculum component including a longitudinal view of how a patient with a chronic condition interacts with the health system. However, this assignment was the subject of malfeasance on the part of some students and was being reviewed. With this potential loss or change, a significant component of assessment in Population Medicine will need to be replaced. Separate to this, staff discussed the potential of offering some MD research projects in population medicine.

The team recommends a review of the theme of Population Medicine which may be better placed to take a more assertive role in the teaching of evidence-based practice, epidemiology and other aspects of public health.

Despite the apparent absence of a specific graduate outcome related to the AMC Graduate Outcome Statement 3.3 '*…communicate effectively in wider roles including health advocacy…*', or reference to the student as an advocate in the core curriculum statements, the heads of the various clinical schools and academic themes were comfortable providing examples of where and how advocacy is delivered in the curriculum. Rather than forming a component of the curriculum in so many words, advocacy on behalf of patients and the community is viewed as an integral skill that students are helped to develop by working closely with their supervisors and mentors in the clinical schools. The team was satisfied through discussions held at the various clinical schools that patient and community advocacy is well-instilled in graduates.

The Professionalism and Leadership domain is covered under the program's Professional and Personal development theme. Graduates are prepared to act

professionally in a breadth of leadership roles in the medical community through instruction, experience and by example. In the Year 1 Foundation block, students are introduced to the program's *Statement of Expectations*, to *Good Medical Practice*, and to doctors' health and wellbeing. Legal responsibilities are included in lectures in the program.

In Stage 3, the focus is on learning the professional attributes involved in the activities students observe in clinical practice, and the ability to be an effective member of a team and to understand ethical implications related to those activities. Issues of a clinical ethics nature are also the focus of a reflective essay. The School undertook an initial review on the Personal and Professional Development theme in 2010 and is undertaking a subsequent review to establish how the outcomes of the first review have been implemented, and consider how best to incorporate professionalism in learning and assessment. The team considers that teaching on professional behaviour and managing inappropriate behaviour needs to be explicit throughout the program. The team supports the School on its additional review of the theme and looks forward to the results.

Overall, the team is satisfied that the curriculum content meets the expected standards and it commends the School for the attention it has paid to incorporating the essential elements of primary medical education in a logical and educationally sound manner throughout the curriculum.

Curriculum renewal was demonstrated at block level particularly in courses where medical evidence has progressed, such as the haematology block. The commitment from clinical staff to develop and review the content was impressive. The team considered that the rolling review process of the blocks was appropriate and considers the AMC be updated regarding any changes in future progress reports.

3.3 Curriculum design

There is evidence of purposeful curriculum design which demonstrates horizontal and vertical integration and articulation with subsequent stages of training.

The design and implementation of the curriculum facilitates horizontal and vertical integration of learning through the four years. Vertically, the Stage 1 and 2 blocks are system focused and the Stage 3 blocks are discipline-oriented. The block content is multi-disciplinary in its delivery, and students consider topics from multiple angles. For example, problem based learning cases are designed to integrate teaching from that week, encompassing the biomedical sciences, clinical, public health and ethical aspects. The four themes span the program horizontally, although the depth varies. In places, Population Medicine, Patient and Doctor, and Personal and Professional Development content overlaps.

The high degree of compartmentalisation in Stages 1 and 2 of the curriculum is viewed by the team as an unavoidable necessity given the amount of material students cover in the first two years. One advantage of the compartmentalised course structure is the ability to coordinate communication/history-taking, physical examination and

procedural skills at the clinical schools, while students are learning the corresponding human body system and subject material. Another advantage relates to the formative assessment that can be offered and readily interpreted by students.

A third advantage is the format facilitates systematic evaluation of the curriculum to keep it comprehensive and current. Regular meetings and an effective working relationship among the discipline heads and staff with responsibility for the same discipline at the various sites, as well as among the heads of discipline group, are consistent with smooth integration of the program as a whole within the structure of blocks. The team did query the process however to ensure overlapping theme content was 'owned' and covered across themes and assessed, and considers that mapping could benefit. Taken together, it is fair to say the advantages outweigh the disadvantages in the overall approach.

Although it was not explicitly stated in written documents, considerable attention is paid to human lifecycle medicine during the program. Examples include problem-based learning cases on issues in patients from pregnancy and foetal to end of life; an assignment on human development at the end of Stage 1; and the Stage 3 rotation in Child and Adolescent Health. The team considers that students gain adequate exposure to aging-related issues and aged patients.

The School prepares students well for internship and lifelong learning thorough various elements of the curriculum and adds additional evaluation and preparation in the pre-intern term.

3.4 Curriculum description

The medical education provider has developed and effectively communicated specific learning outcomes or objectives describing what is expected of students at each stage of the medical program.

The School requires each teaching activity to have a set of learning objectives. Students advised that their understanding of the curriculum in Stages 1 and 2 is shaped by the learning objectives attached to each learning activity. These are available to staff and students in course handbooks and online in the *Compass* learning management system. In Stage 3 in addition to learning objectives, a syllabus describes each rotation.

Students commented that the learning objectives were often numerous and lacking in detail, noting that more specific and detailed objectives would provide a useful framework for independent study. They were appreciative of improvements made to the Stage 3 curriculum objectives.

The School has been working to refine the program's learning objectives to better indicate the depth of learning. The team supports this work. Attention should be paid to aligning the specific learning objectives with the program's graduate outcomes, and its core curriculum statements. The School has since advised, upon review of the team's draft report, that it has completed much work on the Stage 1 and 2 learning objectives, and will discuss the overall design and organisation of the learning objectives as part of its 2016/17 curriculum review.

It should be noted, staff and students were widely conversant as to the aims of the program and expectations of the students. The team considers the program communicates its learning objectives well, and recommends that the School complete its work to refine the learning objectives in a timely manner.

3.5 Indigenous health

The medical program provides curriculum coverage of Indigenous Health (studies of the history, culture and health of the Indigenous peoples of Australia or New Zealand).

The Indigenous health curriculum was reviewed in 2013 by the Associate Dean (Indigenous health) with stakeholder input from the program's Indigenous Health Advisory Committee. The review recommended a revised Indigenous health curriculum, replacing large core lectures with compulsory online learning resources aligned to revised learning outcomes, and the addition of cultural training components. The CDAMS *Indigenous Health Curriculum Framework* forms the basis of the revised Indigenous health curriculum.

The revised curriculum has two areas of teaching and learning. The first is the core curriculum content which is delivered online and assessed. This compulsory online component in Stages 1 and 2 includes readings and short answer questions, and is the basis for the multiple choice question items.

The second area is the 'Understanding Indigenous Health Program'. This includes dedicated Indigenous health teaching sessions in Stages 1 and 2 of the program. Students must accrue 20 points per year by participating in a range of learning activities. In the first two years, 24 hours are allocated to lectures and seminars, and a range of opportunities to accrue points are offered outside the curriculum.

The Indigenous Health Education Unit implemented the revised curriculum in 2014 across Stages 1 and 2. The team found that students were pleased with the variety of modes to study Indigenous health, which include seminars (some with allied health), a reflective writing module, writing single best answer questions for future exams, attending various museum exhibitions, community events such as the Redfern astronomy night, or law lectures on constitutional change. A group of 12 students each year have the opportunity to go on an Aboriginal cultural weekend to the South Coast, and another small number can attend a fly in – fly out trip with the Poche Centre.

The revision of the Indigenous health curriculum has been well-received by students and the team considers that the 'points system' is an innovative method to address the needs of a large cohort. Students describe particular satisfaction with the seminar series, though expressed disappointment at the lack of opportunity to attend some sessions as audience numbers are limited. Attendance therefore relies on students being first-in to sign up, which has driven increased student interest and demand in the topic.

The rural students commented that they were unable to access many of the seminars and opportunities available to metropolitan students. The team recommends that

opportunities for students to gain the necessary experience and points be considered at the rural centres, noting that there are likely excellent alternatives.

In Stage 3, the curriculum is currently defined by the block / discipline lead and varies according to site. The School indicated that the Stage 3 curriculum requirements and responsibilities in Indigenous health are being mapped and will be implemented across Stage 3 in 2016/17. The team looks forward to reports on implementation of the Stage 3 Indigenous health curriculum.

In 2015, ten MD projects on Indigenous health were offered with six taken-up. Staff members take care to find suitable topics and are hopeful that uptake will increase in future.

The Indigenous health component of the curriculum is viewed as a success qualitatively. It has precipitated increased interest in Indigenous health which is welcomed, which may lead to a call to increase opportunities for participation. The team was impressed by the exceptional efforts being made by the Associate Dean (Indigenous) and the Indigenous Health Education Unit.

3.6 Opportunities for choice to promote breadth and diversity

There are opportunities for students to pursue studies of choice that promote breadth and diversity of experience.

The program provides extensive choice for students to pursue diverse experiences and interests from patient care to research, especially since the introduction of the MD projects.

An eight-week elective block at the start of Year 4 provides breadth of choice in the clinical environment, with the School reporting that 70% of students seek placements overseas, and 10% complete an advanced anatomy program.

The formal curriculum, the additional clinical opportunities available to students and the enhanced elements of the MD program constitute a constellation of opportunities at the University of Sydney to provide a nearly unique set of directions in which medical students can pursue their interests in areas from patient care to research.

4 Learning and teaching

4.1 Learning and teaching methods

The medical education provider employs a range of learning and teaching methods to meet the outcomes of the medical program.

The School utilises a wide range of learning and teaching methods throughout a well-structured medical program. It indicated that the learning and teaching methods are selected based on consideration of the stage in the program, the required learning outcomes and logistical considerations. The team learned of innovative teaching and learning methods, delivered by committed teaching staff and shared across sites.

In Stages 1 and 2, students are primarily at main campus, undertaking several days of central university based teaching, with a dominant theme each week that is explored by problem-based learning (PBL) sessions, lectures and seminars. Preparation for the clinical environment includes a structured, one day per week skills program delivered in the clinical schools in Stages 1 and 2. This includes approaches that utilise simulation related to a range of procedural and communication skills. Communication skills tutors play a prominent mentoring and coaching role across the stages. The team commends the introduction of weekly clinical contact from early in Stage 1 as a strength of the program.

Table 4 displays the time allocated to timetabled sessions:

Table 4: Stages 1 and 2: face-to-face time distribution in a typical week

Activity	**Time per week**
Plenary sessions: lectures and seminars	12 hr
PBL sessions	2 x 1.5 hr = 3.0 hr
Anatomy laboratory sessions	2 hr
Other laboratory session	1.5 hr
Clinical teaching sessions	4.0 hr
TOTAL	**22.5 hr**

In Stage 3, learning and teaching methods are largely led by the disciplines as students rotate through clinical placements. Timetabling is less fixed as students follow the clinical activities required of each rotation. There is a core series of 59 lectures in Stage 3 scheduled for Friday afternoons. Students have a mixture of online lectures, clinical reasoning sessions, formal and informal learning in clinical settings, and undertake self-directed projects and independent study based on the curriculum. The student body commented that the Stage 3 learning resources include a variety of online teaching units which vary in age and quality.

The School reports student attendance of approximately 60% at central lectures. It records central lectures and makes them available online, and videoconferences lectures from clinical sites. Review of the learning management system *Compass* showed archived lectures going back several years. The School is working toward minimising lectures and adopting learning and teaching modalities that promote deeper learning in their place. While this was said to have gained momentum throughout 2014 and 2015, lectures remain a significant component of the program, especially in Stages 1 and 2.

Seminars are increasingly used to supplement specific on-line learning modules, and include didactic delivery with student participation, often with pre-work required. 'Flipped classroom' sessions were piloted in 2014 in one week in Stage 1. Students viewed on-line lectures, completed a quiz, and submitted any queries. They then attended a seminar which integrated the lecture content, quiz data and the student questions into clinical scenarios. A further four-week pilot was conducted in 2015, with improved software and quality. The School indicated feedback was positive and it plans to develop additional sessions.

Teaching of anatomy has included good use of mixed modalities, converting didactic lectures to online resources. On-line lectures precede the laboratory sessions, which also include on-line materials. Most anatomy practical classes include on-line videos and quizzes which students work through before and after each practical session. Student feedback has shown that the online materials better meet their needs and the team noted a high degree of satisfaction among students. Laboratory session supervision and instruction is done by dedicated staff and retired surgeons. Attendance at an autopsy session is mandatory and much appreciated by students, with some students asking to do more.

PBL is a key feature of Stages 1 and 2. In 2014, many PBLs were updated, with each case having a writer responsible for it and links to current online resources.

In 2015 the School trialled PBL sessions conducted 'banquet style' in large, open teaching spaces, with tutors (biomedical and clinical) floating among groups. The change was largely due to the renovation of the PBL rooms and the availability of a new large teaching space. PBL tutors are not paid and availability of tutors can be a challenge. The team noted overall that the response to this macro-PBL teaching has been negative, with too much noise and little inter-group interaction, though students did like the competition from working against other groups and the option of having both clinical and biomedical tutors available for assistance. The School's evaluation of the change reported that learning outcomes were fairly equal.

The School stated at the visit that it has decided to use both the renovated small rooms and the large room style for PBL, rotating groups through both formats while ideally maintaining group size at six to seven students. The team looks forward to further updates on the School's evaluation of the PBL delivery.

Stage 3 incorporates 28 clinical reasoning sessions, which are an adaptation of PBL focusing more on diagnosis and management. Students first work through an on-line

exercise, then do a small group session on a real or paper-based patient that has been developed by a student. The material is subject to assessment.

4.2 Self-directed and lifelong learning

The medical program encourages students to evaluate and take responsibility for their own learning, and prepares them for lifelong learning.

The School advised it has designed the program to encourage students to take responsibility for their own learning within the framework of the core curriculum and the learning objectives. It acknowledged that a tension arises between clearly defining learning boundaries and self-directed learning. One could consider that Stages 1and 2, being heavily structured, do not really drive this. However, within this structure, there are self-directed modalities to encourage self-directed learning such as PBL sessions.

Self-evaluation is a factor of the reflective tasks in Stages 1 and 2 around professionalism in the Personal and Professional Development theme. An innovative method of formative peer assessment is conducted in the Stage 1 and 2 PBL groups twice a year. Students are trained to observe peer behaviour and give feedback, then students evaluate their PBL peers, and receive peer feedback themselves via an aggregated report. The School noted that the effect has been an observed improvement in the quality of the small-group sessions.

The program is building its electronic resources to permit self-directed learning and the online learning management system *Compass* provides necessary resources and course information.

The School reported that since its last AMC assessment it has created an 'unallocated' day for students in Stages 1 and 2 by concentrating the anatomy and other laboratory sessions, and one of the two PBL sessions, into one day. Students can use this day for doing on-line tasks, group work outside the classroom, private study or MD project work.

The opportunities within Stage 3, leading eventually to the 'long case' examination, followed by the pre-internship term align well to adult learning, and the need to be a good intern medical officer.

The program seeks to promote lifelong learning by integrating a strand of evidence-based medicine throughout the four years. The research skills development training in Stage 1, the MD project, and the Year 3 Evidence based medicine / PEARLS project are some of the modalities that teach skills for lifelong learning. PEARLS, short for 'Presenting Evidence Abstracted from the Research Literature' requires a student to formulate a clinical question related to the problems of a real patient, review the literature and apply to the patient's case, and then present to their peers and tutors.

4.3 Clinical skill development

The medical program enables students to develop core skills before they use these skills in a clinical setting.

The team was impressed with the development of clinical skills in the program. Students are welcomed to the clinical sites early in Stage 1, Block 1 and encouraged to meet patients. The Foundation block introduces basic skills early on while defining the statement of expectations.

The Patient and Doctor theme teaching at the clinical schools delivers communication skills, physical examination skills and procedural skills through Stages 1 and 2.

Weekly procedural skills sessions use simulation equipment in a safe environment. Students who demonstrate competence on simulation equipment may be permitted to undertake the procedure (e.g. venepuncture) on a consenting real patient under supervision. Skills development is tracked via a logbook. A progressive development of procedural capacity is expected during Stage 3.

Communication skills workshops include 'breaking bad news' involving challenging interviews whereby the student gives the 'patient' a new diagnosis of cancer; and 'open disclosure' followed by feedback to the student.

Simulation is also used for the training of particular physical examination techniques by students using simulated patients, i.e. volunteers who are recruited specifically for this purpose or individuals purpose-trained for gynaecologic examination are employed for Stage 3 teaching.

A number of SCORPIO sessions (Structured, Clinical, Objective, Referenced, Problem-based, Integrated and Organised) are delivered at the clinical schools by the disciplines and students rotate in small groups through a series of stations; for example, the Cardiology SCORPIO and the Trauma SCORPIO. These were designed to continue and evolve a PBL approach into the clinical years.

4.4 Increasing degree of independence

Students have sufficient supervised involvement with patients to develop their clinical skills to the required level and with an increasing level of participation in clinical care as they proceed through the medical program.

Students have ample involvement with patients at each clinical site. Throughout the program, student groups of 4 – 6 have bedside teaching tutorials with a clinical tutor and consenting patient. Students develop communication skills, clinical history-taking skills and physical examination skills of increasing complexity as they progress. Where possible, tutors have longitudinal involvement with a group across the year, allowing a degree of mentorship.

Students are encouraged to visit patients in the wards from early in Stage 1 to gain experience in clinical history-taking and physical examination.

In Stages 1 and 2, there are two clinical immersion blocks, Haematology in Stage 1 (though the School is considering moving it to Stage 2) and Oncology in Stage 2, where students are mostly based at the clinical school. These blocks permit students to participate in the health setting over 4-5 days a week, including ward rounds and clinics, in addition to structured sessions in the clinical school.

Throughout Stage 3, students spend at least four days each week encountering patients and observing clinical care while being attached to a clinical team. In the Community block, students participate in the daily work of a rural or urban general practice, seeing patients under supervision.

The four-week pre-internship attachment (PrInt) at the end of Stage 3 allows the student to complete the program in a supernumerary intern role, in either their clinical school, or the health service where they have been offered an internship. Assessment is performance-based and students must be successful to graduate. Senior students reported they felt well-prepared to become interns in 2016.

The team was impressed by the opportunities available to students to learn by observing and participating in supervised patient care outside of the formal structure of the curriculum. Students, as a whole, were supportive and appreciative of the means by and environment in which they were learning the practice of clinical medicine.

4.5 Role modelling

The medical program promotes role modelling as a learning method, particularly in clinical practice and research.

A strength of the program is the involvement of clinicians in teaching and the immersion of students in the health setting, both of which promote role modelling in clinical practice and research.

The collaboration among discipline leads, clinical school heads and theme leaders, and the interaction with dedicated clinicians with adjunct status is impressive. Student comments were highly positive, with excellent engagement by students in central, rural and remote clinical schools. The team considered that the leadership clinicians it met across all sites were most impressive, both as committed clinicians and members of the program.

The issue of bullying and harassment did not draw many comments from the students. Some had seen less than optimal behaviour but this was attributed to “stress” or “fatigue”. There was reluctance in students whom the team spoke with to report such behaviour.

The MD project will provide an excellent opportunity to model the importance of research, and generate respect and understanding of research.

Stages 1 and 2 students receive near peer role modelling via a buddy system where Stage 3 students provide guidance, and also have regular interaction with junior doctors at the clinical sites via supervision.

4.6 Patient centred care and collaborative engagement

Learning and teaching methods in the clinical environment promote the concepts of patient centred care and collaborative engagement.

Bedside teaching is present throughout the program with tutors acknowledging the concept of patient centred care. The longitudinal communications tutors, present in all

stages (depending on site/block) allow discussion around the professional role, and as needed, this may extend to extra tutoring.

Longitudinal involvement with patients occurs as a Year 2 paediatric exercise, which aims to give students an understanding of the dynamics of early childhood development across two interviews.

Quality and safety care, centred around the patient, does not seem to be specifically covered (refer to comments at Standard 3.2). With regard to learning and teaching methods, the team saw excellent examples of some components of teaching of quality and safety in several clinical schools, with students encouraged to participate in junior doctor training and LHD initiatives. In this regard, the scope of practice documents prepared by the Sydney Adventist Hospital Clinical School for all its students were viewed as a positive element. High quality patient care was observed in the pre-internship term.

4.7 Interprofessional learning

The medical program ensures that students work with, and learn from and about other health professionals, including experience working and learning in interprofessional teams.

The team was pleased that impetus for interprofessional learning (IPL) has come from a university-wide approach towards inter-disciplinary collaboration led by the deputy vice chancellor (education). Within the Division, there is enthusiasm from pharmacy, nursing and the health sciences to develop IPL teaching and learning. Challenges identified by the School are scheduling issues as the medical program has different semesters, and staff availability.

In the current curriculum, students attend a multi-professional team meeting, accompany a hospital pharmacist on a medication round, and accompany a community nurse on his or her rounds. Procedural skills sessions may also be taught by nursing or physiotherapy staff.

The program's initiatives in IPL in Stages 1 and 2 are noteworthy. One includes an exercise in which medical, nursing, allied health and pharmacy students form a team to create a presentation on how they would solve a problem scenario. The teams compete and their presentations are recorded and reviewed. The team giving the best presentation is supported to attend an analogous national competition. This will be continued this year with Year 1 students and palliative care cases.

A student-led ward has been piloted at Orange Base Hospital involving healthcare students from all relevant disciplines, under the supervision of clinical teaching staff, as replicated in other hospitals in NSW. The School hopes to develop a student led, multidisciplinary ward at the future Northern Beaches Hospital.

The immersion at the clinical school sites promotes students working with and learning from other health professionals. The team heard of various worthwhile IPL activities at the sites, and encourages staff in their development of activities.

The team recommends the School create an overarching IPL learning framework with central governance that can ensure IPL graduate outcomes are met across the curriculum, and share knowledge of the IPL activities at various sites to promote consistency in the learning outcomes achieved. The enthusiasm and commitment of the IPL team was noted and the team looks forward to future developments.

5 The curriculum – assessment of student learning

5.1 Assessment approach

5.1.1 The medical education provider's assessment policy describes its assessment philosophy, principles, practices and rules. The assessment aligns with learning outcomes and is based on the principles of objectivity, fairness and transparency.

5.1.2 The medical education provider clearly documents its assessment and progression requirements. These documents are accessible to all staff and students.

5.1.3 The medical education provider ensures a balance of formative and summative assessments.

The University has a set of clear policies that describe and guide assessment practices across all Faculties. These include the *Coursework Policy 2014*, *Academic Dishonesty and Plagiarism Policy in Coursework 2012*, *Improving Learning and Teaching through Collaboration, Benchmarking and Alliances Policy*. In addition, the Academic Board has several resolutions that are relevant to assessment across the University. Assessment within the program is said to be compliant with these policies and resolutions. The program document *Principles of Assessment* consolidates descriptions of the assessment philosophy, principles and practices of the MD program across all stages. A more comprehensive iteration of this program assessment document may be helpful in the discussions about the balance of central versus School management of assessment and misconduct, as assessment in medical education is different from assessment in many other university programs.

The submission to the AMC did however include material that could be included in a specific program assessment document. The principles include: assessment must advance student learning (alignment with learning outcomes, using a wide range of assessment methods, evolving complexity through the program); clear communication with students and staff (unit outlines released early, includes details of assessment including marking); must be valid and fair (authentic, rigorous standards, evaluated); and continuous improvement (peer reviewed, updated, staff development).

Assessment and progression requirements are available in unit outlines that are provided to all students. Staff and students were aware of this information and able to explain how the system worked.

Assessment results were initially ungraded, but following the 2007 *Review of the Sydney Medical Program,* in order to provide information that might facilitate specialty training program applications, the School moved to a graded system in 2009 for Year 3 and 2010 for Year 4.

While formative assessment is available throughout the program, there appears to be heavy reliance on summative assessment. Students report that this dominates their focus. This pattern of assessment methods may improve the reliability of progress decisions, but may threaten the validity of the overall assessment approach by encouraging students to focus more on textbook learning than learning through clinical immersion. The School advised that it has no theoretical framework to determine how

much formative or summative assessment is needed. Generally, across the program students undergo some form of formative assessment before the summative assessment; these may include interactive group-based sessions, self-assessment modules, practice exams and practice OSCE and long case sessions.

The new approach to documenting weekly formative long cases throughout Stage 3 was received positively, as it is seen as both improving skills and reducing anxiety about the summative long case at the end of Year 4. The assessment item databank includes a section for formative assessment, and staff state that the formative assessment item bank includes mostly high quality questions that are matched to program learning outcomes.

5.2 Assessment methods

5.2.1 The medical education provider assesses students throughout the medical program, using fit for purpose assessment methods and formats to assess the intended learning outcomes.

5.2.2 The medical education provider has a blueprint to guide the assessment of students for each year or phase of the medical program.

5.2.3 The medical education provider uses validated methods of standard setting.

Students are assessed by a variety of assessment methods and formats throughout the program. The most common method is multiple choice questions (MCQs), both single best answer (SBA, Type A) and extended matching questions (EMQs, Type R). Particular disciplines and specialties use other methods more variably. As examples, anatomy uses a version of a multiple station 'spotter', paediatrics uses short answer questions and community health uses essays and reflective pieces. Objective structured clinical examinations (OSCEs) in Year 1 include two 'dead' stations with written or visual material instead of real or simulated patients to assess tasks, however these tasks may be better assessed in other formats allowing the OSCEs to focus on observable skills. In the clinical rotations, some specialties use small OSCEs while others prefer long cases. The Personal and Professional Development theme uses reflective assignments and paediatrics uses a longitudinal patient contact report (Population medicine until recently had a longitudinal patient report). The Assessment and Evaluation Unit manages these assessment tasks. It combines scores across methods and determines cut scores for final barrier assessments (theme marks are awarded only in Stage 3 speciality blocks), and produces results for approval and dissemination.

While the use of a wide range of assessments, selected according to their specific purpose and utility, is sound practice, the School relies heavily on MCQs for summative assessment. This practice likely improves reliability of progress decisions, but may threaten the validity of the overall assessment approach. As student learning is strongly driven by assessment, the heavy reliance on assessment of knowledge by MCQs, even if mostly at the level of applied knowledge, may encourage students to focus more on textbook learning than learning through clinical immersion.

Further, assessment practices may reflect a relatively compartmentalised teaching program (refer to Standard 3.3), with some disciplines and specialty rotations each demanding a separate assessment with sufficient questions to produce a reliable pass score. Satisfactory attendance and participation in clinical placements are required and are recorded by placement supervisors. Assessment appears variable, depending on the 'core' versus 'specialty' block. Assessment of the Community block seems different, with greater reliance on reflective essays and assignments, which raised comments from both central faculty and students. The School's intent is to design assessment appropriate to the block as opposed to insisting on uniformity.

Students are required to pass each speciality block separately, while the four core blocks are assessed in the combined barrier examination at the end of Years 3 and 4. In addition, students sit a summative assessment at the end of their eight-week speciality blocks three times in Year 3 and once in Year 4. In Year 4 alone, students are assessed by approximately 500 MCQs. This places pressure on students and may risk further driving learning from sources of knowledge rather than clinical experience. It is also likely that defensible reliability is achievable with fewer questions.

Students reported concerns about the relative weakness of practical and clinical assessments, particularly during Stage 3. Students indicated that they would like more OSCEs and more workplace-based assessment to reinforce learning in clinical settings.

The Assessment and Evaluation Unit conducts the blueprinting by a variety of methods, but always based on the intended learning objectives for the course. The learning objectives can be mapped to the program's graduate outcomes which in turn map to the AMC Graduate Outcome Statements. This is sound practice. Staff and students indicated that the content of the assessments does reflect the curriculum, although students report that there sometimes appears to be a reliance on questions about relatively esoteric conditions. This may be more noticeable for students at the rural sites, where the clinical caseload is much more general than in the metropolitan, highly sub-specialised placements. Students at the rural sites say that they prepare for their examinations by studying text books and question bank websites rather than focussing on local patients.

The Assessment and Evaluation Unit uses appropriate psychometric methods for standard setting. The Rasch method (Item response theory) is the most commonly used, demonstrating that the Unit has the capability to adopt and apply new methods.

The team commends the School for the level of skill and commitment devoted to assessment practices including item development, quality assurance, setting and managing examinations, standard setting, and analysis of assessment data including producing and checking data that informs progress decisions.

That said, the team recommends that assessment practices be reviewed, focusing on the balance of formative and summative assessment, written and clinical, and sub-specialty versus generalist content.

5.3 Assessment feedback

5.3.1 The medical education provider has processes for timely identification of underperforming students and implementing remediation.

5.3.2 The medical education provider facilitates regular feedback to students following assessments to guide their learning.

5.3.3 The medical education provider gives feedback to supervisors and teachers on student cohort performance.

The School advised that it detects underperforming students or students requiring support by noting poor results in formative and summative assessments, and by 'red flag' behaviours, such as erratic attendance, lack of engagement in tutorials, late submissions or behavioural anomalies. The program has a network of sub deans, and an underperforming student will be contacted by a sub dean and offered support. The School indicated 5-10% of students may be required to meet a sub dean after a Stage 1 or 2 summative assessment to receive feedback and have an individualised remediation plan formulated; these are tracked in *Advocate* (see Standard 7). Students not meeting academic progression requirements also receive formalised remediation.

The team was impressed with the capability of the Assessment and Evaluation Unit to process assessment data rapidly, such that detailed feedback is available generally within about one week of the assessments. Students are provided with feedback that includes areas of strengths and weaknesses, although at the level of discipline or specialty rather than more specific to individual questions. Students report that they would prefer more detailed feedback, perhaps down to individual question level, ideally sooner than currently provided. This is consistent with international trends, but can be difficult to achieve.

The Assessment and Evaluation Unit produces detailed feedback for both Units and individual teachers, as described at Standard 6. Reports are collated and provided to relevant Unit coordinators and/or Discipline/Specialty leaders. In Stage 3, it is left to Unit/Discipline/Specialty leaders to provide feedback to individual teachers. Some individual staff members and students interviewed appeared unaware of this process, and some advised they had not received feedback on their teaching, although there may have been sampling bias in selection of individuals the team spoke to. Poor teaching evaluations were said to be unusual and to be managed discreetly and well.

5.4 Assessment quality

5.4.1 The medical education provider regularly reviews its program of assessment including assessment policies and practices such as blueprinting and standard setting, psychometric data, quality of data, and attrition rates.

5.4.2 The medical education provider ensures that the scope of the assessment practices, processes and standards is consistent across its teaching sites.

The Assessment and Evaluation Unit provides a strong central service to the specialties and disciplines with responsibility for assessment of students.

Exam papers are drawn from the software program Exambank. New items are contributed each year by specialties and disciplines. Examination papers are compiled using a variety of blueprinting methods that are all based on the learning outcomes of the relevant component of the program. Standard setting is conducted using appropriate procedures.

A small selection of assessment items in 2015 Year 2 and Year 4 examinations were sampled for review. Year 4 questions all had clinical stems and appeared to be sound. Year 2 questions were less integrated, often with no clinical stem, and often seemed to be a choice of two possible answers due to poor distractors. This may partially explain the relatively high mean scores and cut scores.

The performances of all exams, items and candidates are analysed rigorously, including the use of Rasch analysis (Item Response Theory), with comprehensive reports provided to the Assessment and Learning Sub-Committee. Items with high or low success rates are pulled out for initial review by the Assessment and Evaluation Unit director and then referred, if necessary, to the specialty or discipline that authored the question. Items are then either improved or discarded.

The formative assessment item bank also receives regular attention. Items that are added are regarded as being sound items.

The team commends the School on the consistency of assessment practices across teaching sites. Students at all clinical schools, including the Rural Clinical School and University Department of Rural Health sites, undertake identical assessment tasks. Written assessments are managed centrally by the Assessment and Evaluation Unit, with synchronous sitting of identical examinations. In Year 4, the long case process is identical, although patients and examiners are different. Examiner development appears to be rigorous and the School believes that differences in patients have little impact on outcomes.

6 The curriculum – monitoring

6.1 Monitoring

6.1.1 The medical education provider regularly monitors and reviews its medical program including curriculum content, quality of teaching and supervision, assessment and student progress decisions. It manages quickly and effectively concerns about, or risks to, the quality of any aspect of medical program.

6.1.2 The medical education provider systematically seeks teacher and student feedback, and analyses and uses the results of this feedback for monitoring and program development.

6.1.3 The medical education provider collaborates with other education providers in monitoring its medical program outcomes, teaching and learning methods, and assessment.

The School demonstrates a strong commitment to monitoring, evaluation, feedback and quality improvement of the program through the use of a range of methods applied through the Assessment and Evaluation Unit. The School is to be commended for establishing this Unit, which has approximately five full-time equivalent staff positions spread across eight positions. Within the group there is expertise in statistics, psychometrics, qualitative methods, item quality review and evaluation. The team met staff members who demonstrated substantial knowledge of assessment quality assurance and evaluation methods. The strongest evaluation processes are in assessment, and assessment data are used to produce a substantial number of reports that provide useful and meaningful information to guide appropriate and consistent program evaluation.

Curriculum content is generally reviewed on an annual basis to ensure that it is current, relevant and reflective of intended learning outcomes. Information on potential redundancy or repetition of content comes from the detailed, fortnightly student evaluations.

Teacher feedback is systematically gathered at the end of each block. Much of the curriculum content review includes the views of staff and students and is undertaken at discipline level, with clinical contribution in blocks in Stages 1 and 2, where the primary leadership is a biomedical scientist. Findings from the review are fed back to the head of the program and coordinators for consideration. Changes are approved through the Curriculum Committee, Program Committee, and supervised by the head of the program.

An important monitoring initiative is the training of students to give and receive collegial feedback. Students observe the nexus between their role in giving professional feedback and the process of using feedback data for monitoring and quality improvement purposes.

The School conducts a broad, end of year student survey on the program that includes aspects such as content and teaching quality, and reports achieving a good response. The University's central quantitative teaching evaluations, being the national Course Evaluation Questionnaire for completed students, and the biennial Students' Course Evaluation Questionnaire, are also conducted, though these reportedly attain low response rates and are less specific.

The School evaluates in detail the teaching of individual teaching faculty members in Stages 1 and 2 via an excellent rolling, sample-based system. As part of the students' Personal and Professional Development assessment requirements, all students are provided with some training in evaluation, and every two weeks 24 are required to evaluate every teaching session via an e pro forma, and take part in a focus group. The response rates are high and within a fortnight a report on the quality of teaching is available to unit/discipline/specialty leaders for discussion among teaching teams. Concerns about individual teachers are managed by one to one discussions with the staff member concerned. The result is a detailed and comprehensive evaluation approach throughout the academic year.

There is less evidence of action to remediate or change teachers; senior staff said that this happens infrequently, but students who spoke with the team were not aware of any examples. Therefore, while the Assessment and Evaluation Committee can and does pass reports up to the Executive Committee, it is not clear what action is taken to address any concerns identified in evaluations. A formalised response mechanism, perhaps through the establishment of a higher level Evaluation Committee to receive evaluation reports could ensure that evaluation cycles are closed (refer also to Standard 6.3).

Student supervision in clinical, laboratory and community activities for example is monitored largely via student or staff reporting of issues. The team noted that from 2015 the School will seek more systematic feedback from staff and students on the MD project research tutors, and the team supports this development.

Assessment and student progress decisions are monitored, analysed and reported by the Assessment and Evaluation Unit. The School reported that the Unit has a strong record in research and development on assessment and evaluation methodology, and has advanced the development of assessment and evaluation, including new methods of monitoring course content and delivery (such as the two-weekly group detailed feedback model).

The School actively participates in, and at times leads, collaborations with other medical schools in assessment. The Australian Medical Schools Assessment Consortium (AMSAC) project is managed by the Assessment and Evaluation Unit. Items are shared and students are benchmarked against other participating schools and the midpoint of the programs (similar to USMLE Step 1). The Medical Deans Assessment Benchmarking project is also managed by the Unit, sharing assessment items in medicine, paediatrics and now surgery, sharing and comparing cohort performances of participating schools.

The School also participates in the Medical Deans' longitudinal dataset, the Medical Schools Outcomes Database, which aims to track students from the commencement of medical school to their postgraduate career choice by specialty and location. The School has collaborative links through the Group of Eight medical school deans, and has collaborated with Australian medical schools moving to an MD.

The School has developed international relationships with staff in Johns Hopkins University School of Medicine, the Weill Cornell School of Medicine, the University of Toronto, the University of British Columbia, University College London and the Karolinska Institute in Sweden.

6.2 Outcome evaluation

6.2.1 The medical education provider analyses the performance of cohorts of students and graduates in relation to the outcomes of the medical program.

6.2.2 The medical education provider evaluates the outcomes of the medical program.

6.2.3 The medical education provider examines performance in relation to student characteristics and feeds this data back to the committees responsible for student selection, curriculum and student support.

The Assessment and Evaluation Unit uses assessment data to monitor cohort performance, attrition and completion rates of students.

Failure rates are reasonable and consistent with other Australian and New Zealand medical schools at about 4-12% per year over the last four to five years of data that was presented. This includes deferrals for mostly non-academic reasons. Attrition rates are also at about the national mean band the overall completion rates since the 2008 entry cohort have been between 92 and 96%, reflecting that most deferring students return and succeed.

The School evaluates the outcomes of the program via the Medical Deans Outcomes Database (MSOD) project, in collaboration with most other Australian and New Zealand medical schools. MSOD provides some information about postgraduate career choice such as specialty and location. However, the School does not routinely attempt to gather robust information on the performance of its graduates as junior doctors, as happens elsewhere. The team learned that all graduates obtain internships. The team considers that mechanisms to track graduate performance to evaluate the outcomes of the program be improved.

The School examines performance in relation to student characteristics via cohort analysis. It links student characteristics prior to commencement of the program with students' performance in the program. Variables include scores on each component of the admission criteria, prior degree information (type of degree and type of university), and demographic information (gender, age, rural background). The School also analyses factors such as students' performance across the clinical schools, and performance of local and international student cohorts.

Analysis has shown that graduate medical school admission test scores are moderate predictors of academic success in the early years of the program and that the absence of

a medical sciences background does not affect academic performance. Year 1 written assessment scores have been shown to be strong predictors of performance throughout the program; and the best predictor of summative assessment performance is the most recent prior summative assessment result.

As noted at Standard 2.2, recent analysis has found no consistent difference in cohort performance by clinical school. Students have been randomly allocated to clinical schools since 2012 which ensures no advantage (previously high-performing students had preference regarding clinical school choice).

The Assessment and Evaluation Unit disseminates its findings to School and program committees, which has influenced discussions and decisions about admissions, student support, curriculum and assessment.

6.3 Feedback and reporting

6.3.1 The results of outcome evaluation are reported through the governance and administration of the medical education provider and to academic staff and students.

6.3.2 The medical education provider makes evaluation results available to stakeholders with an interest in graduate outcomes, and considers their views in continuous renewal of the medical program.

The School acknowledges that its management and governance of evaluation data could be improved. The Assessment and Evaluation Unit gathers and processes a substantial amount of useful information and provides reports to Unit/Specialty/Division/Clinical School leaders. Findings are reported to quarterly Evaluation Committee meetings, but what happens after that is less clear. It is therefore uncertain that these reports are acted on or that such responses are documented and disseminated to staff, students and the health system. The team considers that the School develop clearer governance structures and processes for managing evaluation data, demonstrating that evaluation cycles are closed.

7 Implementing the curriculum - students

7.1 Student Intake

7.1.1 The medical education provider has defined the size of the student intake in relation to its capacity to adequately resource the medical program at all stages.

7.1.2 The medical education provider has defined the nature of the student cohort, including targets for Aboriginal and Torres Strait Islander peoples and/or Maori students, rural origin students and students from under-represented groups, and international students.

7.1.3 The medical education provider complements targeted access schemes with appropriate infrastructure and support.

The School has a stable prescribed intake of 912 students over the four years of the program, with an average 228 students annually. It has an agreement with the Commonwealth Government to not take full-fee paying domestic students. The School has committed to a limit of 25% international students in any cohort, leaving a target enrolment of 304 students across the program.

Table 5: Student numbers by offer type, 2011 – 2015

Year	Number of unbonded Government supported students	Number of bonded Government supported students	Number of fee-paying international students	TOTAL
2011	190	62	71	**313**
2012	151	63	66	**288**
2013	148	64	78	**290**
2014	160	65	74	**291**
2015	163	72	61	**306**

Finalising cohort numbers at entry is challenged by attrition due to late student withdrawals and unknown numbers of repeating students, so the number of offers made have been modelled with reasonable effect over the past five years.

The School aims to have an average of at least 25% of students of rural origin in each cohort. The team noted that the School had maintained this proportion.

The University's Aboriginal and Torres Strait Islander integrated strategic vision, *Wingara Mura - Bunga Barrabugu*, plans to increase the total number of Aboriginal and Torres Strait Islander students by 100% over the next five years. The team notes the School has not set a definitive or aspirational target for the program. Until 2015 the School achieved the admission of only one Aboriginal and Torres Strait Islander student each year. In 2015, the School enrolled three Aboriginal and Torres Strait Islander students and is hopeful of enrolling three again in 2016.

While acknowledging the work that has led to the recent increase in the number of Aboriginal and Torres Strait Islander medical students, the team considers that the School should define its target for Aboriginal and Torres Strait Islander student intake and ensure appropriate infrastructure and support for these students. The team recommends that the School develop a comprehensive strategy with committed resources to increase the number of students in the program. Such a plan could include the development of a 'pipeline' approach with feeder pathways from high schools and undergraduate programs, pathways from undergraduate diplomas, targeted scholarships set at appropriate cost-of-living levels, and alternative graduate pathways that provide credit for prior learning.

The team noted that the resources of the Indigenous Health Education Unit are stretched for the current number of students, given the other important roles of the staff. If numbers of Aboriginal and Torres Strait Islander students increase, the School may need to review if there is suitable infrastructure (relates to Standard 1.8.3).

Although the School has not set a target for students from low socio-economic backgrounds, it acknowledges that this group is under-represented in the program. The team recommends that the School consider policies to allow entry for students from low socio-economic backgrounds and monitor their entry.

The team considers that the School has the capacity to manage the existing cohort size and has appropriate infrastructure and clinical placements. There are no plans to increase the cohort size.

7.2 Admission policy and selection

7.2.1 The medical education provider has clear selection policy and processes that can be implemented and sustained in practice, that are consistently applied and that prevent discrimination and bias, other than explicit affirmative action.

7.2.2 The medical education provider has policies on the admission of students with disabilities and students with infectious diseases, including blood-borne viruses.

7.2.3 The medical education provider has specific admission, recruitment and retention policies for Aboriginal and Torres Strait Islander peoples and/or Maori.

7.2.4 Information about the selection process, including the mechanism for appeals is publicly available.

The School has defined policies and processes for admission into the program as contained in its *Domestic Admissions Guide* and *International Admissions Guide*, both of which correspond to university admission policies. Admission policies and procedures are the remit of the Admissions Committee. Previously a member of the GAMSAT Consortium, students must now apply direct to the university.

Domestic students are selected into the program via three selection criteria. First, their bachelor degree Grade Point Average and their Graduate Australian Medical School Admissions Test (GAMSAT) score are combined to achieve a threshold score. Those above the threshold are invited to attend the five station Multiple Mini-Interview (MMI).

Their MMI score is then combined with the threshold score and applicants are ranked and places offered progressively down the rank order.

International applicants to the program need to meet the same eligibility criteria as domestic applicants, although they may take the US Medical College Admissions Test, instead of the GAMSAT. There is an additional minimal English-language requirement for entry. Since 2010, all international interviews have been conducted via Skype.

The School allows for some variation on Grade Point Average and Graduate Australian Medical School Test scores for students from regional, rural and remote backgrounds.

Students spoken to by the team, both domestic and international, were satisfied with the admissions process, commenting that the admissions documentation outlined the process clearly and their applications and offers were promptly managed.

Data from admissions processes are routinely analysed and, where appropriate, publications about the process are generated. The Committee evaluates and refines the Multiple Mini-Interview every year. The School previously conducted a nine station MMI but since 2011 has run a five station MMI. The Committee noted that decreasing the number of stations in the MMI had little effect on the reliability for this part of the admission score.

The MMI has two interviewers on each station to prevent bias. Half the interviewers are Faculty based, and half are community members, including clinicians. The School trains new MMI examiners each year, and all are observed prior to conducting interviews.

The School does not have special consideration for applicants to the program with disabilities. The School is developing a *Statement of Essential Requirements* to inform prospective students about the physical and emotional requirements to study medicine in the program. This will include information for students with disabilities and infectious diseases including blood-borne viruses. The purpose of the statement is to inform students considering application about balancing the realistic demands of the study and practice of medicine with their human rights. Currently, applicants with blood-borne viruses are not considered differently to other applicants. Applicants are informed that they need to comply with all NSW Ministry of Health policies in the clinical environment.

The School has provisions and procedures in place for the admission, recruitment and retention of Aboriginal and Torres Strait Islander students. The School allows for Aboriginal and Torres Strait Islander applicants to have a lower Grade Point Average and a lower Graduate Australian Medical School Test than other applicants. Additionally, the requirement to have completed two years of a three year Bachelors degree does not apply for applicants identifying as Aboriginal or Torres Strait Islander. They are referred to the Indigenous Health Education Unit, who will support the applicant through the process.

The team was satisfied that information about the selection process, for all pathways, was available publically on the university website. Mechanisms for appeals are not available on the website. The admission guides available on the School's website state that "the University will not consider special consideration requests or appeals.

Applicants are discouraged from submitting such requests or appeals". The Admissions Committee commented that they received numerous appeals and that they dealt with minor appeals (missed deadlines etc.), referring more complex appeals to the dean, which is contrary to the information made publically available. The team requires that the School clarify its appeals process, and make it available publically.

7.3 Student support

7.3.1 The medical education provider offers a range of student support services including counselling, health, and academic advisory services to address students' financial, social, cultural, personal, physical and mental health needs.

7.3.2 The medical education provider has mechanisms to identify and support students who require health and academic advisory services, including:

- *students with disabilities and students with infectious diseases, including*
- *blood-borne viruses*
- *students with mental health needs*
- *students at risk of not completing the medical program.*

7.3.3 The medical education provider offers appropriate learning support for students with special needs including those coming from under-represented groups or admitted through schemes for increasing diversity.

7.3.4 The medical education provider separates student support and academic progression decision making.

The team commends the School on the comprehensive range of support services available to students, both online and in person centrally and at the clinical schools. In particular the Student Support Committee led by the associate dean (Student Support) and sub-deans from each school impressed the team as a group committed to mentoring and monitoring students in respect of their academic and student support needs. All of this information is made available in the year handbooks.

In addition to accessing university student support services, programs like 'Mental Health First Aid' are incorporated into the Personal and Professional Development curriculum as early learning. Self-awareness of one's own wellbeing is also part of the professionalism curriculum. Sub-deans are required to take the Mental Health First Aid course.

When students present with a mental health issue, they are referred to the University's Counselling and Psychological Services. These services provide support in student well-being, and also offer face-to-face counselling or eTherapy. The program also has open workshops available to students in areas such as managing stress, managing exam anxiety and time management.

Students indicated to the team they felt well supported and somewhat informed about where to seek help. The team observed overall that most clinical school staff knew who and where to refer a student in difficulty, although some were less clear. There was also

some confusion among staff and students as to which support was needed, or to whom to report regarding conduct issues, as opposed to student support. This may be an issue with the orientation process of new staff. The team suggests continued communication to staff regarding the processes.

The team were informed that there were carefully defined pathways for assisting students including students with disabilities and special health needs and those with significant academic challenges.

A relatively small number of students take leave or repeat up to two years of the program. The School readily provides early assistance to students who require it in adjusting to the demands of a medical education or who could benefit by coaching in specific areas to overcome a personal hurdle. Students identified as underperforming by the sub-dean, either by performance on assessment, self-referral, or staff observation, are counselled and monitored, to lessen the risk of not completing the program. School staff are asked to be vigilant about students' professional behaviour and refer any questionable incidents to the sub dean.

In early 2014 the School began to implement its new Advocate ™ system, though is not yet consistently available. The School anticipates that the system will be fully functional from the start of Semester 1, 2016. Advocate will allow staff to keep records on students, and will assist in identifying students who require support. Both students and staff will be able to enter data into Advocate ™. Staff noted that they have not been given any training in using the Advocate ™ system, and the School has indicated this is planned before full implementation which the team encourages. Once Advocate ™ has been fully integrated, it seems it will be a strong tool to monitor and keep track of student performance and behaviour. It will particularly be useful as students are not based centrally, allowing tracking across the clinical sites.

The team noted that there was a clear delineation between student support roles and functions, managed by the Student Support Committee, and those associated with academic progression managed by the Progression Committee.

7.4 Professionalism and fitness to practise

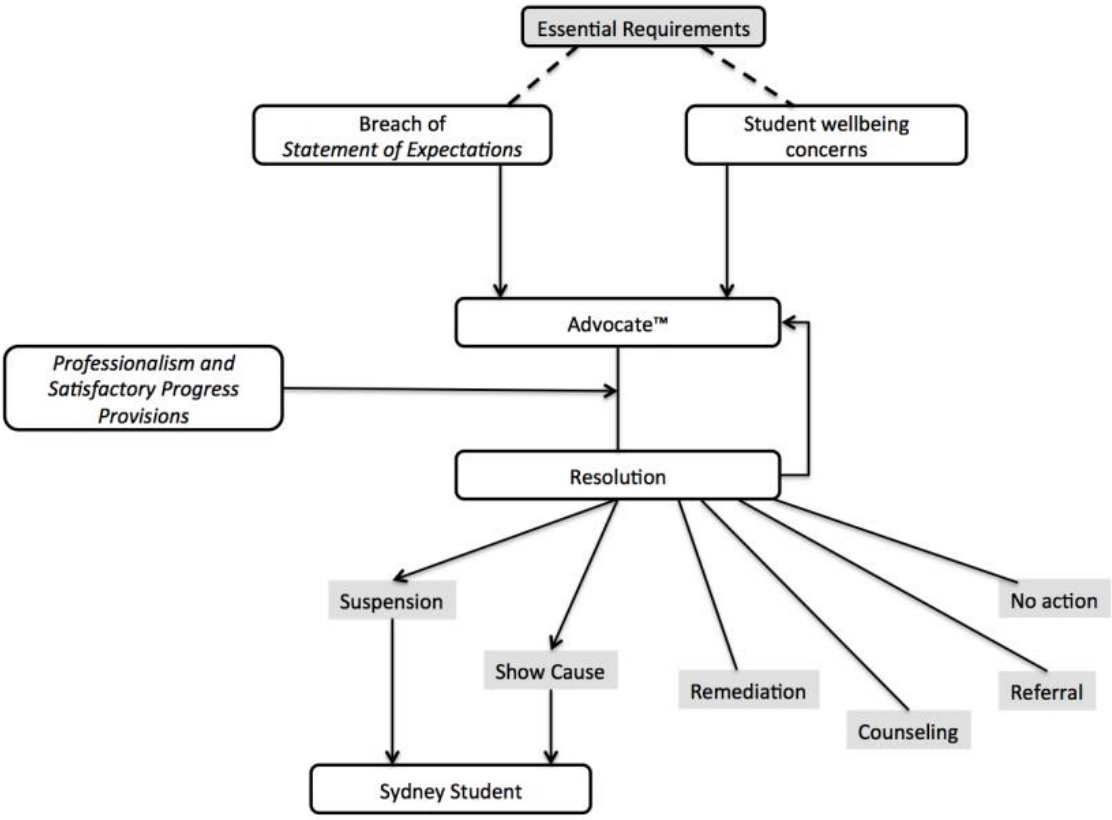
7.4.1 The medical education provider has policies and procedures for managing medical students whose impairment raises concerns about their fitness to practise medicine.

7.4.2 The medical education provider has policies and procedures for identifying and supporting medical students whose professional behaviour raises concerns about their fitness to practise medicine or ability to interact with patients.

The School has appropriate policies and procedures, in the form of three strategies that collectively contribute to the management of students' professionalism and fitness to practice. These are a Statement of Expectations, the Advocate ™ system, and a Statement of Essential Requirements. At the time of the visit, only the Statement of Expectations was in use fully.

Figure 7 demonstrates the relationship between the Advocate ™ system, Statement of Provisions, and coursework policy:

Figure 7: Relationship between Advocate, the Statement of Provisions, and coursework policy



The program has adopted as policy the *Statement of Expectations* that sets out the required attitudes and behaviours considered essential for medical students. This policy aligns with the national code *Good Medical Practice – Code of Conduct for Doct*ors in Australia. The *Statement of Expectations* forms part of the Personal and Professional Development curriculum and students are required to become informed about these

expectations through workshops and other interactive activities before patient contact. Failure to meet these expectations leads to sanction and can impede progression in the program. Serious breaches of these expectations may include academic failure and exclusion.

The Advocate™ system will also facilitate the compilation and appropriate access of information relating to student impairment or problematic behaviours. The School advised it has policies as to who may access student data in this system to protect student confidentiality, and policies about the management of student records after graduation. It is expected that the majority of students will graduate from the program without any records in the Advocate™ system. The team looks forward to an update on the utility of the Advocate™ system, after it has completed the pilot stage.

As noted at Standard 7.2, the School is near completion of its *Statement of Essential Requirements* which includes the physical, mental and behavioural characteristics and attributes necessary for intending and entering students. The team welcomes the School's development of this Statement and looks forward to updates on its implementation in future progress reports.

The School confirmed it complies with the Australian Health Practitioner Regulation Agency (AHPRA) mandatory reporting requirements regarding students with impairments who exceed the threshold, and works with students during this process. Any students with impairments below the threshold are encouraged to self-report. The School noted challenges with this system in that the threshold is high and there are barriers to self-reporting. The team noted that the School communicates with AHPRA for clarification on these issues.

7.5 Student representation

7.5.1 The medical education provider has formal processes and structures that facilitate and support student representation in the governance of their program.

Although there is an appropriate level of consultation with students they are not formally represented in the School's governance. Opportunities include occasional cohort meetings with the dean, and input via feedback at the end of blocks.

The team noted that until 2013, students were formally represented in the governance structure of their program. However during the review of the program this provision changed to informal representation. The School has advised of plans to formalise student representation in its governance structures, and the team requires that this be pursued.

The student cohort is formally represented by the Sydney University Medical Society, the main medical student association. This group has elected office holders and the team were advised that they are welcome to attend meetings of the Program Committee.

7.6 Student indemnification and insurance

7.6.1 The medical education provider ensures that medical students are adequately indemnified and insured for all education activities.

The University holds public liability and professional indemnity insurance for all enrolled students undertaking activities related to their studies if they are complying with the University of Sydney's *Code of Conduct* for students. Students travelling to placements elsewhere in Australia or overseas, are covered for the travel and the placement but not for recreational or other activities outside of the placement. Students can elect to organise their own clinical placement, however they must have this approved and signed off from the head of the program, otherwise it will not be considered an education activity or insured. Students are made aware of this process during orientation and through the guidebooks.

8 Implementing the curriculum – learning environment

8.1 Physical facilities

8.1.1 The medical education provider ensures students and staff have access to safe and well-maintained physical facilities in all its teaching and learning sites in order to achieve the outcomes of the medical program.

Teaching, student and staff facilities on university campus are of a high standard, spanning approximately seven buildings. The Anderson Stuart Building was opened in 1883 as the original medical school building, and following refurbishments, today houses an impressive anatomy facility with laboratory, dissection room and museum. These are well equipped with video facilities to enable teaching to large groups.

The Charles Perkins Centre was opened in 2014. It is architecturally and functionally an impressive building housing research, education and research-based clinical services. The facility has the ability to teach over 200 students simultaneously in pathology and histology using individualised IT systems. There are multiple lecture theatres with capacity ranging from 70 to 500 people, WiFi access and power outlets in all teaching spaces, a student lounge and private student study area.

The Bosch Building houses four large lecture theatres for audiences of between 270 – 300, and the Medical Library. Additional lecture and laboratory spaces are available in three other buildings. Students have access to a student lounge in the Edward Ford building (the School headquarters). Physical facilities for academic and professional staff are adequate.

The School reported that it has adequate space on campus, although it predicts there will be more demand for space for multiple small group activities as teaching modalities evolve. The University is developing plans to refurbish the Bosch and Blackburn buildings to establish a single precinct that incorporates within Bosch the Central Clinical School, the Faculty of Health Sciences, and Sydney Nursing School; and within Blackburn, the medical school research and teaching. The Medical Library will temporarily be moved to the SciTech Library, and it is expected a new library will be included in the Bosch-Blackburn precinct. Plans for the 'medicine footprint' on main campus are expected to be completed by the end of 2015.

Main campus space for the School is the remit of the Space Committee which has mechanisms to consider space needs in the main campus physical facilities and governance structures. An audit of teaching spaces was completed in 2015 by the DVC (education) though the results were not available to the team at the time of the visit.

The team was impressed by the facilities at the clinical schools, of which four have been refurbished or rebuilt within the past seven years: Concord, Nepean, Northern and the Sydney Adventist Hospital all boast purpose-built impressive facilities incorporating lecture space, tutorial rooms, clinical skills rooms, and modern student study and recreation facilities. The Nepean Clinical School also has outpatient clinic space allowing students to be involved, where possible, in consultations.

As noted above, the Central Clinical School will be redeveloped adjacent to the Royal Prince Alfred Hospital, on main campus. Plans to establish an integrated precinct at Westmead, which will encompass clinical, research and teaching facilities, are welcomed. The team was pleased to note the addition of a large, well-furbished student room at Westmead since the submission was written. These older clinical schools all contained adequate student facilities. Students on placement at the Sydney Children's Hospital at Westmead have access to on-site accommodation.

The team were informed that the Manly and Mona Vale hospitals are likely to be replaced by a greenfield Northern Beaches Hospital in future years though this remains in planning stage.

The rural clinical schools at Dubbo and Orange include new teaching facilities in redeveloped or new hospitals together with high standard student accommodation. Around 40 medical students can be accommodated at both Dubbo and Orange at any one time.

The team teleconferenced to Broken Hill and Lismore. Lismore is equipped with PBL rooms which have videoconferencing, a clinical skills lab, and a small lecture theatre. Broken Hill is fully-equipped with videoconferencing, auditoriums, a library, meeting rooms, and an all-hours computer lab, simulation and clinical skills facilities.

Overall, the School is commended on its superior facilities and the University's redevelopment plans to upgrade older buildings at Central and Westmead.

8.2 Information resources and library services

8.2.1 The medical education provider has sufficient information communication technology infrastructure and support systems to achieve the learning objectives of the medical program.

8.2.2 The medical education provider ensures students have access to the information communication technology applications required to facilitate their learning in the clinical environment.

8.2.3 Library resources available to staff and students include access to computer-based reference systems, support staff and a reference collection adequate to meet curriculum and research needs.

The School has impressive bespoke ICT student applications, including the School's learning management system *Compass* which contains the curriculum, online learning resources, and feedback mechanisms. Students and staff have access to Blackboard, the university wide learning management system. Student feedback is that both systems can be difficult to navigate and the School is working on enhancing the navigation and integration of the two programs.

E-portfolio software, PebblePad, is used to store and record clinical activities, assignments, case studies for individual students. *Wombat* is a new software system developed to manage and monitor the MD Projects. The IT department of both the School and the central university appear to be adequately resourced.

At each clinical school good IT access, WiFi and computers are available. There are some issues with WiFi within some Local Health Districts, which are recognised by the School, and the School is encouraged to continue to work with LHDs to facilitate WiFi in future.

The Assessment and Evaluation Unit has introduced iPads for OSCE scoring and is considering iPad use in MCQ examinations. The School has also introduced scanning of student ID's at some compulsory sessions.

Excellent library facilities are available both at university central and the clinical schools. The library resources include access to a wealth of electronic information relevant to the program.

8.3 Clinical learning environment

8.3.1 The medical education provider ensures that the clinical learning environment offers students sufficient patient contact, and is appropriate to achieve the outcomes of the medical program and to prepare students for clinical practice.

8.3.2 The medical education provider has sufficient clinical teaching facilities to provide clinical experiences in a range of models of care and across metropolitan and rural health settings.

8.3.3 The medical education provider ensures the clinical learning environment provides students with experience in the provision of culturally competent health care to Aboriginal and Torres Strait Islander peoples and/or Maori.

8.3.4 The medical education provider actively engages with other health professional education providers whose activities may impact on the delivery of the curriculum to ensure its medical program has adequate clinical facilities and teaching capacity.

All students have good access to patients with no shortage of clinical experience. Those clinical schools where certain specialties are not available ensure students experience these specialties at other sites (e.g. paediatrics, mental health, general practice and obstetrics and gynaecology). The team commends the clinical schools for their ability to imbed the medical students into clinical service delivery creating a harmonious and supportive learning environment.

All schools have access to a range of learning environments and models of care (inpatient, outpatient, intensive care, emergency care, public and private facilities) across metropolitan and rural regions. All clinical schools have access to simulation facilities and a large auditorium with internet access.

Student allocation by clinical schools for 2015 are documented in Table 6:

Table 6: Student allocation by clinical school

Clinical School	Year 1	Year 2	Year 3	Year 4
Central	54	52	48	46
Concord	54	55	48	54
Westmead	62	56	58	59
Nepean	57	34	42	47
Sydney Adventist	34	27	29	22
Northern	64	72	67	69
Dubbo*	0	0	16	16
Orange*	0	0	14	16
Broken Hill *	0	0	4	0
Lismore*	0	0	18	3

*Students who are counted in the rural schools are also counted in their home clinical schools.

Generally, in the Stage 3 medicine and surgery blocks, placements with clinical teams or units make up most of the block; in the speciality blocks students experience a mixture of placements and specific learning and teaching activities.

In the Community rotation, students are allocated to at least two different general practices for 2-4 weeks.

At the Rural School, students rotate through the same discipline blocks as if they were in Sydney, with two GP placements. The team considered that the rural sites could make more use of general and rural practice in a more integrated model.

The rural placement has been popular with students and previously over-subscribed, although currently the 2016 preferences are under quota. The Rural School indicated this may be a result of the MD project being selected in Stage 2 with fewer rural options (refer to Standard 3.2), or related to students not visiting the rural school in Stage 1. Alternatively, the School noted that the drop could relate to a random variation or the consequences of a relatively smaller cohort in Year 3 in 2016. The team recommends that this drop in interest be further explored by the School and rectified.

Additionally, the team considered that the Rural School could take more students, particularly those wanting a second year. This is currently 'not funded' by the Rural Clinical School contract and University transfers, so no university funds are available for students outside of the Rural Clinical School contract. If this were possible to address, additional capacity could be used for a longer and more integrated clinical experience.

The Lismore and Broken Hill sites both reported being well-supported by the School and the discipline leads, noting there was strong communication, regular executive meetings, visits from the dean once a year, and clear policies to work with.

A number of students would prefer all of Stage 3 to be rurally based. The team found that some streams may not link well to rotation to the rural sites but with restructuring this could work. The Child and Adolescent Health block is popular, well-structured and expertly led across all locations. However the team considers this block could also be run entirely in rural centres and suggest the School consider additional possibilities.

The School advised that all clinical schools monitor the student and staff feedback for each placement to ensure the ongoing suitability of experiences.

The School advised that all students receive cultural competence training, and the clinical schools at Central, Western, Nepean and Rural School in particular all have local Aboriginal and Torres Strait Islander communities, meaning it is probable students will experience provision of care to these peoples. Students reported good opportunities at the rural sites to work with Aboriginal patients. Students may undertake attachments to Aboriginal Medical Services, to Aboriginal communities, or fly-in/fly-out clinics. The School indicated the cohort was too large to accommodate all students in these experiences. The associate dean (Indigenous), the Poche Centre and the rural schools are involved in developing relationships with Aboriginal communities with the aim to increase student placement opportunities.

The team commends the clinical schools for their ability to engage constructively with other health and medical education providers (in particular the University of Western Sydney), thereby enhancing the diversity and richness of the learning environment.

8.4 Clinical supervision

8.4.1 The medical education provider ensures that there is an effective system of clinical supervision to ensure safe involvement of students in clinical practice.

8.4.2 The medical education provider supports clinical supervisors through orientation and training, and monitors their performance.

8.4.3 The medical education provider works with health care facilities to ensure staff have time allocated for teaching within clinical service requirements.

8.4.4 The medical education provider has defined the responsibilities of hospital and community practitioners who contribute to the delivery of the medical program and the responsibilities of the medical education provider to these practitioners.

Each clinical school is led by an associate dean who together with support staff is responsible for appointing clinical supervisors and ensuring quality supervision is delivered. Most of the supervisors are hospital consultant staff who are not remunerated for their work. Each supervisor receives written details of their supervisory role and responsibilities, and meets with the associate dean at least annually. New supervisors are personally briefed by the professional staff responsible for the stage at the clinical school. A *Handbook for Supervisors* is updated and sent to every supervisor annually, and there are Block handbooks for every rotation advising staff and students of block learning outcomes; these resources are also available online. Many clinical supervisors have academic titles and all are encouraged to apply for an academic title. Students commented favourably on the quality and personable support received at the clinical sites by staff.

Clinical supervisors are assessed by students on a regular basis with many clinical schools awarding and celebrating annually the best tutor of the year.

The activities of community practitioners / general practitioners are coordinated by the clinical sites and are highly integrated into clinical teaching within each clinical school.

Curriculum content is determined centrally by the discipline of General Practice, as with other specialities. The number of available practices and the generous contribution of the community clinicians to the program is a strength.

A strong teaching culture was observed across the clinical sites. The engagement of clinicians at clinical sites with main campus is strengthened by key program committee members being based at their own clinical site.

The team was impressed with the training and development opportunities offered to supervisors to increase their skills in teaching, particularly to new supervisors who have access to mentoring by senior staff.

Staff complete a training program such as 'Teaching on the Run' and are provided with certification of their teaching skills, and junior medical staff are keen to take on tutoring roles. Senior students also have the opportunity to take on 'buddy' roles at clinical sites with junior students. Supervisors reported enjoying tutoring medical students and gaining much from the experience and there does not appear to be difficulty recruiting clinical supervisors.

All Local Health District CEOs reported working closely with the University of Sydney and the relevant Clinical School, valuing the relationship and encouraging their clinical staff to participate in teaching. The team found there to be an unqualified degree of support from hospital administration and the Local Health Districts for the School's educational efforts.

Meetings with medical students from all years of the program highlighted their enjoyment and enthusiasm for the program and the high standard of tutoring and supervision they were receiving. It was apparent to the team that School staff and adjuncts at all locations take great pride in the Sydney Medical School brand and in providing an outstanding, quality medical education to the students.

Appendix One Membership of the 2015 assessment team

Professor Ian Puddey (Chair) MBBS, MD, FRACP
Winthrop Professor, Faculty of Medicine, Dentistry and Health Sciences, The University of Western Australia

Professor Richard Hays (Deputy Chair) MBBS, PhD, MD, Dip RCOG, FRACGP, FACRRM MRCGP
Professor of Medical Education and Dean of Medicine, School of Medicine, University of Tasmania

Professor Christine Kilpatrick MBBS, MBA, MD, FRACP, FRACMA, FAICD
CEO, Royal Children's Hospital Melbourne

Associate Professor Papaarangi Reid DipComH, BSc, MBChB, DipObst, FNZCPHM
Tumuaki and Head of Department of Maori Health, Faculty of Medical and Health Sciences, University of Auckland

Professor Jeff Schwartz BS, PhD
Academic manager for Years 1 and 2, Griffith University, School of Medicine.

Associate Professor Stephen Tobin MBBS, FRACS, FRCS, GradCertClinEd, MSurgEd
Dean of Education, Royal Australasian College of Surgeons; Consultant Surgeon, Ballarat Health Services; Visiting Surgeon St John of God Hospital and Daylesford Hospital; Associate Professor at University of Notre Dame Australia, School of Medicine Sydney and Deakin Medical School.

Ms Stephanie Tozer
Manager, Medical School Assessments, Australian Medical Council

Ms Fiona van der Weide
Accreditation Administrator, Australian Medical Council

Appendix Two Groups met by the 2015 assessment team

Senior Leadership

Dean

Deputy Vice-Chancellor (Education)

Provost and Deputy Vice-Chancellor

Vice-Chancellor

Sydney Medical School staff

Acting Co-Director of the Medical Program

Associate Dean (Academic Standards and Services)

Associate Dean (Admissions)

Associate Dean (Assessment & Evaluation)

Associate Dean (Indigenous)

Associate Dean (Research)

Associate Dean (Student support)

Associate Dean and Head of the Concord Clinical School

Associate Dean and Head of the Nepean Clinical School

Associate Dean and Head of the Northern Clinical School

Associate Dean and Head of the School of Rural Health

Associate Dean and Head of the Sydney Adventist Hospital

Co-Director of the Medical Program

Deputy Dean (Clinical)

Deputy Dean (Education)

Deputy Dean (Finance and Administration)

Faculty Manager

Sydney Medical School committees and groups

Admissions subcommittee

Assessment and Progression subcommittee

Basic and Clinical Sciences Theme

Clinical school associate deans

Curriculum subcommittee

Dean's Advisory Group

Education office – Assessment and Evaluation unit

GP Teachers

Heads of Disciplines

Indigenous Health Education Unit

Interprofessional learning group

MD Program committee

MD Team

Patient and Doctor Theme

PBL teachers

POCHE Centre

Population Medicine Theme

Professional and Personal Development Theme

Research Committee

School IT Staff

School professional staff

Stage 3 committee

Student Support subcommittee

Stakeholders

Charlie Perkins Centre

Academic Director

New South Wales Ministry of Health

Clinical Chair of the NSW Prevocational Training Council

Director Workforce Planning and Development

Medical Advisor, NSW MoH

University of Western Sydney

Dean

Medical students

Sydney Medical School Students Society (SUMS)

Representatives from phase 1 – 3 students

Clinical sites

Broken Hill Department of Rural Health

Head, University Department of Rural Health Broken Hill

Lecturer, Clinical Medicine Stream

Central Clinical School

Clinicians

Local Health District and Hospital management

School staff

Students

Children's Hospital at Westmead Clinical School

Clinicians

Local Health District and Hospital management

School staff

Students

Concord Clinical School

Clinicians

Hospital management

School staff

Students

Dubbo Clinical School

Clinicians

Local Health District Management

School staff

Students

Lismore, University Centre for Rural Health

Head, University Centre for Rural Health

Medical Education Lismore

Nepean Clinical School

Clinicians

Hospital management

School staff

Students

Northern Clinical School

Clinicians

Hospital management

School staff

Students

Orange Clinical School

School staff

Students

Support staff

Sydney Adventist Hospital Clinical School

Clinicians

Hospital management

School staff

Students

Westmead Clinical School

Clinicians

Hospital management

School staff

Students