AMA

2012 AMA Junior Doctor Training, Education and Supervision survey

REPORT OF FINDINGS – MARCH 2013

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Foreword

The AMA Council of Doctors in Training (AMACDT) is the peak representative body for junior doctors, with strong links to all trainee representative groups. It plays a key leadership role within the AMA and provides junior doctors with an effective voice, helping to shape the future delivery of medical education and training in Australia.

Australia's public hospitals are fundamental to educating and training doctors. It is vital that junior doctors are appropriately supported and supervised during their formative training years – and that the breadth of their experiences properly prepares them for independent medical practice to best serve the Australian community.

Proper training facilities, adequate clinical supervision, appropriate channels for feedback, and protected time for education and training are integral to this. Public teaching hospitals must be adequately resourced and supported to ensure that they provide high quality health care, as well as an optimal learning experience for trainees.

With the number of medical graduates continuing to grow, there will be increasing pressure on public hospitals to expand training capacity and deliver quality clinical training. *Health Workforce 2025 (HW2025)* highlights the urgent need for more prevocational and vocational medical training places from 2016 onwards. Governments must address this or else thousands of junior doctors will not be able to achieve their specialist qualification, and the community will not realise the full benefit of its investment in the next generation of doctors.

The 2012 AMA Junior Doctor Training, Education and Supervision (TES) survey examines the quality of the training, education and supervision that junior doctors are receiving in public teaching hospitals across the country, and explores whether hospitals are striking the right balance between the provision of care to patients and training the next generation of doctors.

This is the second survey of its type. A similar survey in 2009 delivered a mixed report card on the quality of the public hospital training environment, and highlighted the need for more resources to ensure that the quality of medical training in public hospitals was maintained and improved. The 2012 AMA TES survey reports on how the training environment has changed since 2009.

The AMA will use the results of this survey to lobby governments and hospitals to provide the necessary resources to ensure that junior doctors are working in an environment that supports a high quality training experience.

Dr Steve Hambleton
Federal President

Dr Will Milford
Chair
AMA Council of Doctors in Training

Executive Summary

The 2012 AMA Junior Doctor Training, Education and Supervision (TES) survey examines the quality of the training, education and supervision junior doctors are receiving in public teaching hospitals across the country, and explores whether hospitals are striking the right balance between the provision of care to patients and training the next generation of doctors.

The results of the 2012 AMA TES survey reveal that junior doctors believe hospitals perform at or above expectations in:

- providing access to educational and information resources;
- providing adequate and appropriate clinical supervision;
- regular clinical meetings;
- easy access to computer facilities;
- consultation and feedback mechanisms; and
- supervisor assessments and reports, and rights of review.

Areas where junior doctors think there is room for improvement include:

- quarantined time for research;
- processes to develop research skills;
- support for part-time/flexible hours;
- access to office space; and
- providing teaching skills for junior doctors.

Ensuring the quality of medical education and training for the burgeoning medical training pipeline must be a priority area for immediate and significant investment. The AMA is calling for:

- increased educational oversight for prevocational doctors beyond PGY2+, with increasing integration of unaccredited registrar posts into vocational training;
- recognition and development of the role of junior doctors as teachers and trainers, with the provision of education and resources to develop the teaching skills of junior doctors;

- improved provision of flexible working hours by both employers and vocational training providers;
- the urgent development of an articulated clinical academic pathway for medical students, trainees, senior doctors and existing clinical academics;
- the exploration of robust and transparent funding models for teaching and training, ensuring that investment in these activities is adequate with indexed, protected funding; and
- a framework for measuring the quality of medical training. This should include consideration of a national training survey, development of key performance indicators, and inclusion in the National Health Performance Authority's performance and accountability framework.

Implementation of the AMA's recommendations will ensure that Australia maintains a world-class medical education system and a highly-skilled medical workforce. This is in the best interests of all Australians.

Background

The medical training environment is evolving rapidly. Increasing medical student enrolments and the establishment of new medical schools have become controversial, internships are no longer guaranteed, and workforce modelling predicts medical training bottlenecks in the medium to long term. It is within this context that the quality of medical training becomes even more vital. Providing a quality clinical training environment is the best way to ensure that the next generation of doctors is appropriately supported and supervised during their formative years, that they have the skills to serve Australian communities, and that the high standard of health care currently experienced by the majority of the public is maintained.

Over the last decade, increased numbers of medical schools and an expansion of both Commonwealth-supported and full-fee paying places has seen medical student enrolments double. The downstream effects are now flowing through the medical training pipeline, with an 80 per cent rise in intern numbers since 2004, and two and a half times as many vocational trainees now than in 2000.[1]

While Australia is fortunate that many clinicians choose to work in the public health sector and train junior doctors, the pool of educators is not growing fast enough. There has been only a 52 per cent increase in the medical educator workforce since 2000.[2] In 2006, an estimated 20 per cent of medical practitioners with a primary clinical occupation reported they provided some medical education. Assuming that the same proportions are still providing education, the number of medical practitioners with a primary clinical occupation has only grown by 20 per cent.[3,4] This assumption overlooks the growing tension between the demand for service delivery and the demands of teaching and training junior doctors in the current tight fiscal environment.

While medical education and training in Australia now occurs across a diverse range of settings in both the public and private health sectors, public teaching hospitals, complemented by general practice, will continue to be the cornerstone of medical training. However, the clinical experiences within public hospitals have not grown at the same rate as trainee numbers. Emergency department presentations, inpatient separations, outpatient services and surgical admissions have only increased by 2 to 4 per cent per year since 2006.[5] The training 'pie' is being cut into smaller pieces, with the subsequent dilution of clinical experiences.

In the face of dramatic increases in medical training numbers, static supervisor numbers and slowly growing clinical experience volumes, what has happened to the quality of medical training within Australia's public hospitals? Few measures of the quality of medical training exist. Surveys such as the Medical Student Outcomes Database, the AMA Specialist Trainee Survey, and other similar work conducted by postgraduate medical councils and colleges provide some data, but it remains patchy and difficult to access.

The AMACDT is specifically tasked by AMA Federal Council to provide feedback on the views of junior doctors – from interns to senior registrars – in Australia. The provision of a quality clinical training experience for all junior doctors is a key issue for the AMA. This will continue as the Commonwealth increases its investment in medical school, prevocational and vocational training places to meet the medical workforce shortages and the training bottlenecks forecast by *HW2025*.

Developing systems capable of monitoring trends in the quality of training, education and supervision is critical to ensuring that increasing numbers of medical graduates and trainees do not dilute the quality of clinical training and, by extension, the safety and quality of care afforded to patients. Now in its second iteration, the AMA TES survey asks junior doctors for their perspective, with the aim of assessing trends in the quality of the training environment in public hospitals across Australia. Importantly, it begins to provide longitudinal data on this core issue. The AMA is planning to conduct the TES survey every two years, on an ongoing basis.

Methodology

Methods

The 2012 AMA TES survey was available electronically on the Federal AMA website from 18 June to 20 July 2012.

All junior doctors were able to participate. AMA members were directly emailed a link and additional strategies were used in some States to encourage non-members to participate. Respondents were presented with an explanatory statement on the aims and objectives of the survey. Participation was voluntary. Participants were asked to submit the name and postcode of their employing hospital.

The 2012 survey used the same instrument developed by the AMACDT in 2009 for the initial TES survey, using the same five-point Likert item (strongly disagree, disagree, not sure, agree, and strongly agree).

The confidential, self-reporting questionnaire used 23 items covering the five key areas surveyed in the 2009 TES with the addition of a sixth area – research. The key areas are:

- educational practices;
- balancing service and training;
- resources for clinical practice and medical education;
- teaching the teachers;
- supervision, feedback and assessment; and
- research.

Analysis

There were 19 substantive questions in 2012, three more than in 2009.

For the purposes of this report, results have been expressed as:

- the percentage of those in agreement or strong agreement; and
- a weighted average score.

The weighted average score (WAS) is based on a 'vote value' where strongly agree equals 2.0, agree equals 1.0, not sure equals 0.0, disagree equals minus 1.0 and strongly disagree equals minus 2.0. It is determined by dividing the cumulative vote value by the number of respondents. The WAS, therefore, theoretically ranges from 2.0 if 100 per cent of respondents strongly agree to minus 2.0 if 100 per cent of respondents strongly disagree. Typically the WAS will range between 1.0 and minus 1.0.

No hospital– or region– specific data was analysed, and only the results from each trainee group are presented here. The 2012 survey training group classifications were expanded on from the 2009 TES survey, splitting registrars into accredited and unaccredited categories.

Response rate

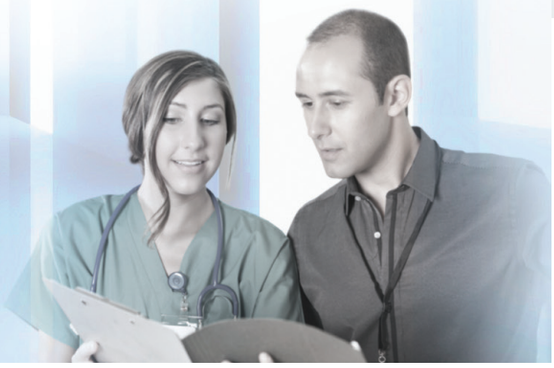
There were 1,112 responses from junior doctors working in hospitals across Australia; 686 (62 per cent) of respondents were female. All respondents answered each question. It is difficult to calculate the population size for each category. The latest Medical Training Review Panel (MTRP) report provides the 2012 figures for some categories, but others, particularly prevocational doctors beyond PGY2, are unquantified. Table 1 shows the classification of the respondents and the corresponding population from MTRP data.[6]

Table 1. Classification of respondents

Classification	Number	MTRP report population size (reference)
Intern	296	2950
RMO (PGY2)	237	3101
RMO (PYG3 & later)	142	*
Registrar (unaccredited)	81	*
Registrar (accredited)	283	16,740
Senior registrar/fellow	73	
All classifications	1,112	

* not measured

Figures are rounded.



KEY FINDINGS
Education practices

Background

The provision of education for junior medical staff is core business for public hospitals and is integral to the future of the health care system. These activities have a number of different dimensions, all of which need to be in place for training to be effective. A structured study program, an appropriate environment for clinically-based teaching, and quarantined time for education are all necessary. These arrangements are often perceived as exclusive from health care delivery, and conflict between the demands of service delivery and education are common. However, the two are not easily separable, and the latter is equally necessary in the delivery of safe, effective patient care.

All junior doctors have access to structured study programs. For prevocational doctors, the Australian Curriculum Framework for Junior Doctors (ACF) fulfils this role; for vocational trainees this is the formal curriculum of their specialty training programs.[7] The learning objectives, as dictated by structured study programs, cannot be met without dedicated teaching time. It is the responsibility of hospitals, via medical education units, to develop study programs based on the curricular requirements of the ACF and specialty colleges, and to link the delivery of patient care with explicit training objectives.

Integrating education with everyday clinical processes and hands-on clinical teaching and supervision requires both an appropriate administrative framework and well-resourced infrastructure. The 2013 AMA Public Hospital Report Card[8] highlights that this framework and infrastructure is under increasing pressure to deliver higher care volumes with fewer resources, and health service delivery is inevitably prioritised over education. The provision of education must be quarantined from these demands, and the time devoted to education protected from the pressures of service delivery.

The availability of clinical meetings is an important indicator of the quality of education and training provided to junior doctors. They provide an opportunity for patient-centred clinical discussion and the integration of research and best-practice literature with contemporary clinical cases, whilst also performing an important role in the delivery of quality health care facilitating clinical handover, audit and reflection.[9]

Results

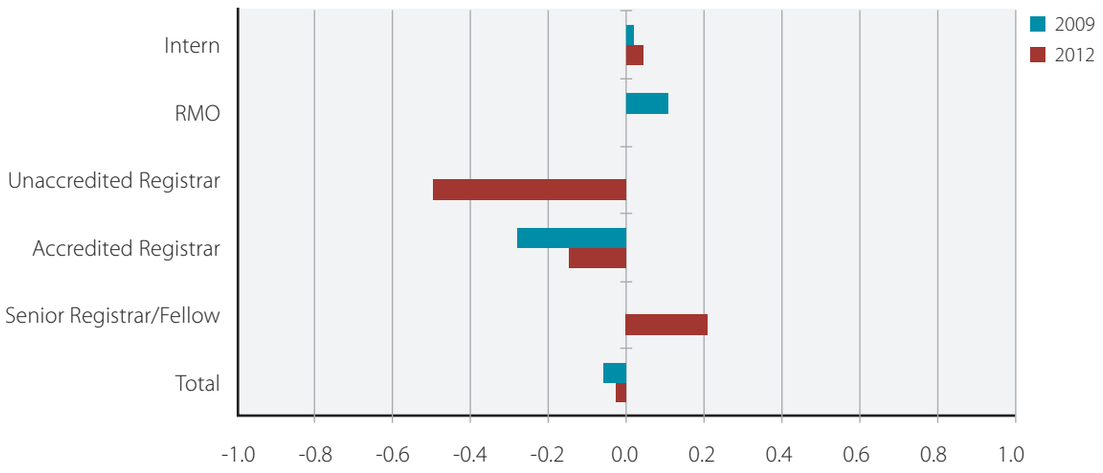
Table 2. The hospital has structured study programs to assist with formal training requirements

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2012 WAS	2009 WAS
Intern	3%	21%	56%	16%	4%	0.0	0.0
RMO (PGY2+)	4%	30%	35%	22%	9%	0.0	0.1
Registrar (accredited)	8%	37%	13%	25%	16%	0.0	-0.3*
Registrar (unaccredited)	1%	21%	27%	28%	22%	-0.5	
Senior registrar/ fellow	1%	52%	21%	18%	8%	0.2	0.0
All classifications	5%	30%	34%	21%	10%	0.0	-0.1

Figures are rounded.

*2009 WAS applies to all registrars.

Chart 1: The hospital has structured study programs to assist with formal training requirements (weighted average score)



While overall this question generated a neutral response, Table 2 and Chart 1 shows that unaccredited registrars (50 per cent) were more likely than accredited registrars to believe that their hospital did not have structured study programs. Senior registrars (53 per cent) were most likely to agree with this statement. A large number of interns (56 per cent) and PGY2+ (41 per cent) trainees were unsure in their response.

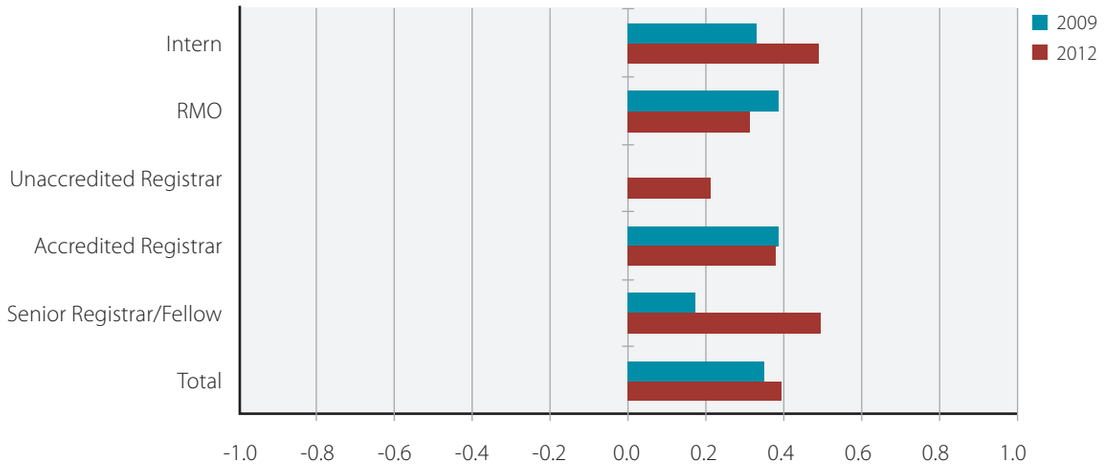
Table 3. The hospital provides an environment for effective clinical practice-based teaching

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2012 WAS	2009 WAS
Intern	10%	55%	13%	18%	4%	0.5	0.3
RMO (PGY2+)	7%	51%	17%	18%	8%	0.3	0.4
Registrar (accredited)	12%	51%	13%	17%	7%	0.4	0.4*
Registrar (unaccredited)	6%	44%	21%	21%	7%	0.2	
Senior registrar/ fellow	12%	53%	11%	18%	5%	0.5	0.2
All classifications	9%	52%	14%	18%	6%	0.4	0.4

Figures are rounded.

*2009 WAS applies to all registrars.

Chart 2: The hospital provides an environment for effective clinical practice-based teaching (weighted average score)



Overall, there was a mildly positive response to this question (WAS 0.4) with interns (65 per cent) and senior registrars (65 per cent) most likely to believe their hospital environment provided for effective clinical practice-based teaching (Table 3 and Chart 2). Again, accredited registrars (63 per cent) felt more positive about this statement than unaccredited registrars (50 per cent).

Compared with 2009, interns and senior registrars took a more positive view of this issue; RMOs were less positive.

Table 4. The hospital provides junior doctors with a fair and equitable distribution of workload while maximising educational and training opportunities

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2012 WAS	2009 WAS
Intern	4%	40%	23%	24%	9%	0.0	-0.1
RMO (PGY2+)	3%	34%	19%	31%	14%	-0.2	-0.3
Registrar (accredited)	6%	30%	15%	34%	16%	-0.2	-0.3*
Registrar (unaccredited)	4%	30%	14%	36%	17%	-0.3	
Senior registrar/ fellow	7%	32%	16%	27%	18%	-0.2	-0.1
All classifications	4%	34%	18%	30%	14%	-0.2	-0.2

Figures are rounded.

*2009 WAS applies to all registrars.

Chart 3: The hospital provides junior doctors with a fair and equitable distribution of workload while maximising educationsl and training opportunities (weighted average score)

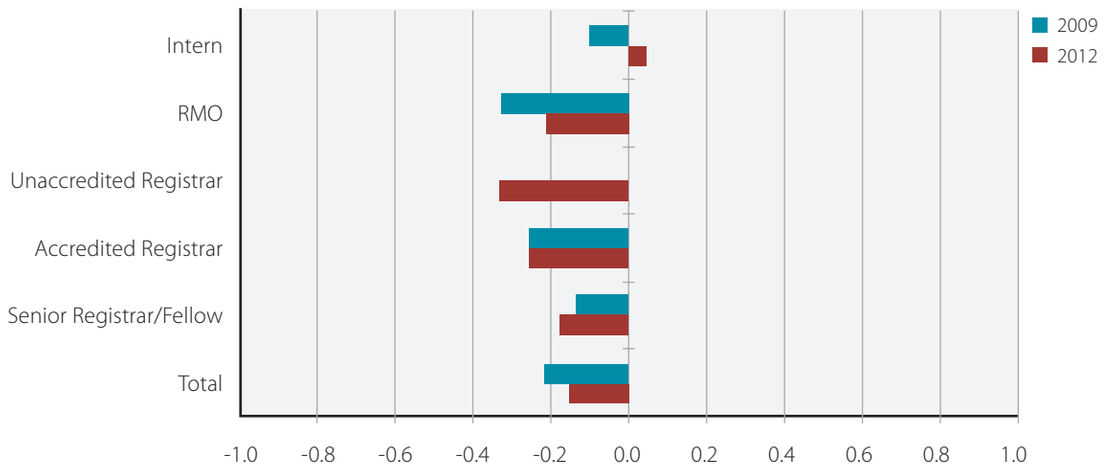


Table 4 and Chart 3 shows that almost half of respondents (38 per cent) believed that their hospital provided them with a fair and equitable distribution of workload. A similar number (44 per cent) believed that it did not. Overall, there was a mildly negative response, with consistency across the training groups; interns being the only ones with a neutral view.

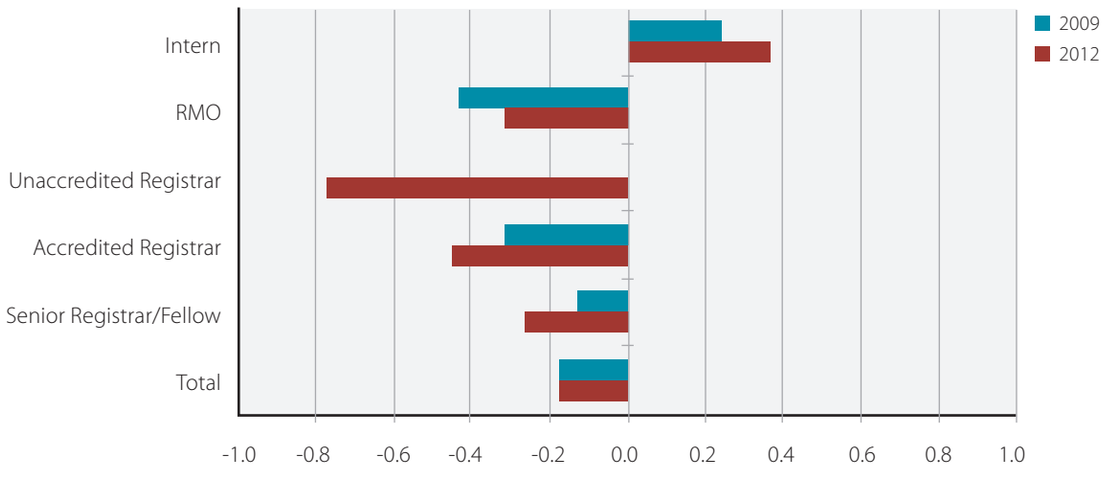
Table 5. The hospital allocates sufficient quarantined time exclusively for education and training on a regular basis

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2012 WAS	2009 WAS
Intern	11%	50%	10%	23%	6%	0.4	0.2
RMO (PGY2+)	5%	27%	13%	41%	13%	-0.3	-0.4
Registrar (accredited)	7%	31%	7%	28%	27%	-0.4	-0.3*
Registrar (unaccredited)	2%	16%	12%	41%	28%	-0.8	
Senior registrar/ fellow	10%	30%	7%	32%	22%	-0.3	-0.1
All classifications	7%	33%	11%	32%	17%	-0.2	-0.2

Figures are rounded.

*2009 WAS applies to all registrars.

Chart 4: The hospital allocated sufficient quarantined time exclusively for education and training on a regular basis (weighted average score)



Nearly half (49 per cent) of respondents believed that their hospital did not quarantine time exclusively for education and training on a regular basis (Table 5 and Chart 4). The results were relatively consistent across all training levels with the exception of interns, who were most likely to have a positive view (61 per cent). Following the similar trend to the previous questions, unaccredited registrars (69 per cent) had the greatest concerns with respect to quarantined education time. This compares to accredited registrar positions, who were more likely to agree with this statement (38 per cent compared to 18 per cent of unaccredited registrar positions).

The results are very similar to the 2009 TES overall and across classifications.

Table 6. The hospital provide useful team/unit-based meetings such as case presentations/ reviews and multidisciplinary meetings on a regular basis

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2012 WAS	2009 WAS
Intern	16%	62%	7%	14%	2%	0.8	0.6
RMO (PGY2+)	12%	61%	10%	16%	2%	0.6	0.6
Registrar (accredited)	17%	60%	7%	12%	4%	0.8	0.8*
Registrar (unaccredited)	14%	59%	5%	19%	4%	0.6	
Senior registrar/ fellow	26%	60%	3%	5%	5%	1.0	0.8
All classifications	15%	61%	7%	14%	3%	0.7	0.7

Figures are rounded.

*2009 WAS applies to all registrars.

Three-quarters (76 per cent) of respondents believed that they received useful team- and unit- based meetings on a regular basis at their hospital (Table 6). Senior registrars (86 per cent) were more positive about this than other training categories. PGY2+ trainees and unaccredited registrars were slightly more negative.

Overall, there is very little difference in the results compared to the 2009 TES survey. Interns have become more positive and registrars less positive than they were three years ago.

Commentary

The findings from this section of the survey suggest that, in general, those groups that feel most positively about their education experiences in public hospitals are those with the most clearly articulated educational goals, namely interns, accredited registrars and senior registrars.

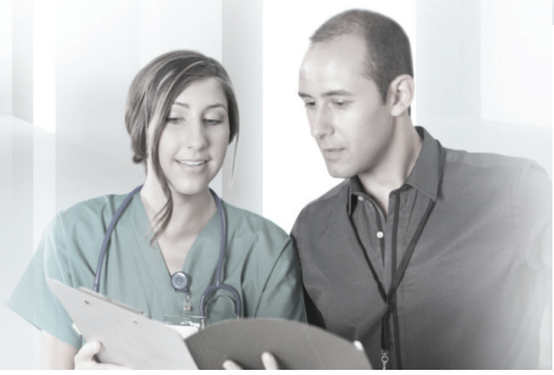
The intern year has the most hospital-focused educational framework, with corresponding outcomes, and tends to be the most supported in achieving these goals by established accreditation standards. It is not surprising that this group tended to have the most positive views on educational practices, particularly with regard to protected teaching time and an appropriate environment for clinically-based teaching. The slightly more positive perception of interns about educational activities since the 2009 survey perhaps reflects the benefits of the ongoing development of the educational framework for the intern year. For vocational trainees, the higher scores from accredited registrars continue to reflect the delivery of structured specialist training programs throughout public hospitals.

Despite this, a large proportion of interns remain in the 'not sure' category in respect of awareness of structured study programs. This may highlight the continuing lack of penetration that the ACF has achieved with the interns surveyed and within their employing hospitals. In the recent review of the ACF, the AMA recommended that further work be done to establish the ACF as a practical educational tool that has everyday relevance for prevocational trainees.

The most striking trend relates to prevocational doctors beyond the intern year (RMOs and unaccredited registrars). The negative response throughout the questions in this section reflects the predominantly service delivery role of these trainees. These doctors are the 'workhorses' of the public hospital system and, as a result, are often not included in the structured educational activities afforded to other groups of trainees. Of concern is the overall negative score for quarantined time for education and training. That this is more marked among unaccredited registrars suggests disquiet about poor access to structured training opportunities and curricula, and raises questions about the educational value of such positions.

Finally, in considering the comparison of results between 2009 and 2012, it is worth recalling the significant increase in the junior doctor cohort over this survey interval. Both prevocational (including interns) and vocational trainee numbers have increased by 15 to 20 per cent in the interval between surveys. Considering these figures, the quality of education provided within our public hospitals has remained remarkably stable in the context of substantial increases in junior doctors.

Balancing service and training



Medicine is evolving rapidly and it is essential that all doctors working on the front line can keep their knowledge and skills current by having access to the latest advances in medical science and technology. Education and training while actively on duty is only half of the equation for junior doctors. Ongoing knowledge and skill development requires access to regular conferences and forums, as well as time outside of work to consolidate training and complete the myriad of assessment tasks required of junior doctors. In addition, most vocational training programs require trainees to attend compulsory courses and meetings.

This necessitates access to leave to attend conferences, meetings and courses. The accessibility of this leave for junior doctors is an important marker of the support these doctors receive while undertaking these activities from the hospitals. It is incumbent on hospitals to support their employees to participate in these activities – and it is in the best interests of the hospitals as well, ensuring that their doctors deliver care at the expected standards.

A significant amount of research has established that junior doctors are in favour of flexible work arrangements.[10] Access to flexible work arrangements allows junior doctors to meet social and family obligations, and is also important for junior doctors undertaking exam preparation, research and other study. The 2007 AMA work-life flexibility survey of public hospital doctors showed that junior doctors had the greatest demand for flexible rostering and working hours, and that flexible working practices were important issues for junior doctors when choosing which medical specialty to pursue.[11]

Results

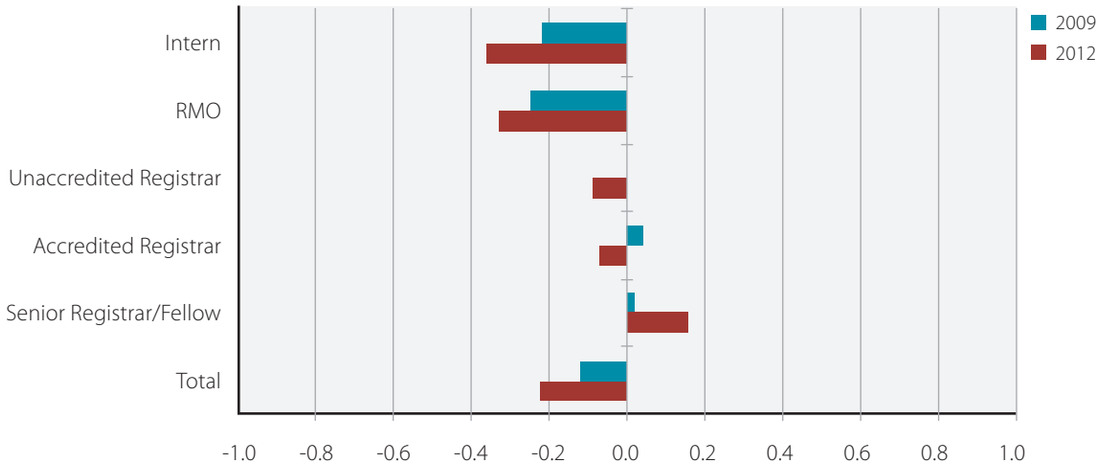
Table 7. The hospital provides timely and easy access to professional development leave

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2012 WAS	2009 WAS
Intern	2%	12%	48%	24%	15%	-0.4	-0.2
RMO (PGY2+)	4%	24%	25%	29%	18%	-0.3	-0.3
Registrar (accredited)	6%	40%	15%	22%	18%	-0.1	0.0*
Registrar (unaccredited)	9%	32%	16%	28%	15%	-0.1	
Senior registrar/ fellow	10%	47%	10%	18%	16%	0.2	0.0
All classifications	5%	27%	27%	25%	17%	-0.2	-0.1

Figures are rounded.

*2009 WAS applies to all registrars.

Chart 5: The hospital provides timely and easy access to professional development leave (weighted average score)



More than one-third (42 per cent) of respondents did not believe that their hospital provided timely and easy access to professional development leave (Table 7 and Chart 5). While senior registrars reported fewer issues, a large proportion of interns (48 per cent) were unaware of their entitlements. Overall, this result is slightly more negative than the response to this question in the 2009 TES.

Table 8. The hospital supports part-time/flexible working hours to assist with training and study

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2012 WAS	2009 WAS
Intern	1%	12%	59%	18%	10%	-0.3	-0.1
RMO (PGY2+)	2%	14%	39%	27%	18%	-0.5	-0.3
Registrar (accredited)	4%	24%	31%	21%	20%	-0.3	-0.4*
Registrar (unaccredited)	4%	14%	26%	28%	28%	-0.6	
Senior registrar/ fellow	4%	29%	25%	26%	16%	-0.2	-0.3
All classifications	2%	17%	40%	23%	17%	-0.4	-0.3

Figures are rounded.

*2009 WAS applies to all registrars.

More than one-third (40 per cent) of respondents believed that their hospital did not support part-time or flexible working hours to assist with training and study (Table 8). A large proportion of junior trainees (59 per cent of interns and 39 per cent of PGY2+ trainees) were unaware of options available to them. Senior registrars (33 per cent) and accredited registrars (28 per cent) were least negative. This compares to unaccredited registrars, who were most negative (56 per cent). The result is slightly more negative, both overall and for the various training groups, than in 2009.

Commentary

With changes in working hours and increased demand for flexible work practices, achieving a balance between work, study and life is critical for maintaining a skilled and motivated workforce. These questions revealed that the majority of junior doctors were either unaware of leave entitlements and the availability of flexible training arrangements, or perceived them as inaccessible. Disappointingly, this result has remained unchanged since 2009.

Most junior doctors – interns – seem to be unaware of their professional development leave entitlements and flexible training opportunities. At the other end of the spectrum, registrars enrolled in formal training programs are the least negative in their responses, reinforcing the benefits of structured training programs with accompanying accreditation standards. Again, those doctors in prevocational years beyond internship, absent from any formal educational requirements, responded negatively to both questions.

Under State and Territory industrial agreements, junior doctors are entitled to professional development leave. These matters are not purely an afterthought added to industrial agreements but represent important educational opportunities for junior doctors. Professional associations such as the AMA have a role to play in educating junior doctors as to their entitlements and assisting them to access them. Ultimately, limiting access to educational activities, through poor access to professional development leave, will come at a cost to patient care.

This survey shows that flexible training remains an important issue for junior doctors. With increasing numbers of doctors demanding flexible training arrangements,[11] flexible working hours must be accommodated by public hospitals. Anecdotal reports suggest that a lack of willingness and capacity of hospital administrations to arrange appropriate cover arrangements is a major barrier to accessing leave. It may also reflect an environment created by hospitals under pressure to provide patient care within tight budgetary constraints.

This result represents an opportunity for hospitals to develop innovative and appropriate rostering practices to facilitate improved patient care and services in expanded hours. As an example, ACT Health will pilot a more responsive rostering system in 2013.[12] The pilot will trial junior medical officer teams or pods that will provide contiguous inpatient care across a twenty-four hour period to increase training capacity and improve patient safety.

Resources for clinical practice and medical education

Background

The role of the junior doctor as both a trainee and a service provider in the current evidence-based environment necessitates access to up-to-date clinical resources and a well-equipped office environment in which to undertake their duties. These resources should include access to web-based programs, soft and hard-copy texts and contemporary medical journals encompassed within office spaces fit for the dual purpose of learning/study and administrative tasks.

Results

Table 9. The hospital provides you with easy access to a range of educational and information resources appropriate to your educational and clinical practice needs

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2012 WAS	2009 WAS
Intern	33%	57%	3%	6%	1%	1.1	1.0
RMO (PGY2+)	28%	58%	6%	8%	1%	1.0	1.0
Registrar (accredited)	28%	55%	6%	8%	3%	1.0	0.9*
Registrar (unaccredited)	16%	64%	6%	11%	2%	0.8	
Senior registrar/ fellow	32%	52%	3%	12%	1%	1.0	0.7
All classifications	29%	57%	5%	8%	2%	1.0	0.9

Figures are rounded.

*2009 WAS applies to all registrars.

The majority of respondents (86 per cent) agreed that their hospital provided them with easy access to a range of educational and information resources (Table 9). This was consistent across training groups.

Compared with 2009, the overall view is a little more positive and more uniform, with RMOs the only group to leave their view unchanged.

Table 10. The hospital provides you with easy access to office space resources appropriate to your educational and clinical practice needs

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2012 WAS	2009 WAS
Intern	3%	30%	16%	39%	12%	-0.3	-0.6
RMO (PGY2+)	2%	23%	14%	44%	17%	-0.5	-0.6
Registrar (accredited)	7%	28%	7%	36%	21%	-0.4	-0.3*
Registrar (unaccredited)	6%	35%	2%	38%	19%	-0.3	
Senior registrar/ fellow	10%	40%	10%	25%	16%	0.0	-0.3
All classifications	4%	28%	12%	39%	17%	-0.4	-0.5

Figures are rounded.

*2009 WAS applies to all registrars.

Respondents were most likely to disagree or strongly disagree (56 per cent) with this statement (Table 10), although the overall view is slightly less negative than it was in 2009. Senior registrars were the only group that took a neutral view.

Commentary

As in 2009, junior doctors were overwhelmingly positive in regards to their access to educational material, demonstrating that hospitals are continuing to invest in this area. In the future, further investment in integrated, evidence-based simulated learning will facilitate learning opportunities for junior doctors and enhance future training capacity.[13,14] The extension of training places into expanded settings and rural and remote areas must also be adequately resourced to ensure junior doctors have access to information technology infrastructure and the educational resources and activities they require.[15]

Poor access to office space is often a common complaint among junior doctors. Work spaces (if available) are frequently shared with other professionals and students and are often small, under-resourced and badly positioned. Anecdotal advice from junior doctors suggests that hospital planning still fails to address this key area with recently built tertiary hospitals omitting this core learning infrastructure for junior doctors.

The survey response suggests that the provision of adequate office space is still not a priority area for hospitals. Junior doctors need proper physical infrastructure to deliver professional services. Office space is an important factor in ensuring a valuable training experience and delivering quality health care. Addressing this situation will improve the capacity and productivity of hospitals and assist junior doctors to meet their learning objectives. Hospital planning guidelines must include this as a core element, not an optional add-on, and hospital management must support the inclusion of these learning areas throughout the process.

Teaching the teachers

Background

The burgeoning number of medical trainees entering the public hospital system will require more doctors to become educators. Increasing numbers of medical graduates, the demands of service delivery, and changing funding models in public hospitals are straining the capacity of clinicians to undertake teaching and training. In 2006, only 20 per cent of medical practitioners with a primary clinical occupation reported providing some medical education.[2] Maintaining quality clinical education and developing clinicians' teaching skills represents a significant challenge for the medical profession.

Most junior doctors have a teaching role in addition to their clinical roles. In often an informal session, these doctors teach and supervise the more junior members of the team, as well as medical students. Indeed, in many institutions, all junior medical staff are obliged to provide education and supervision to their less-experienced colleagues.

Results

Table 11. The hospital has processes to develop the teaching skills of clinicians who provide training to junior doctors

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2012 WAS	2009 WAS
Intern	4%	25%	53%	14%	4%	0.1	0.2
RMO (PGY2+)	5%	25%	50%	16%	4%	0.1	0.1
Registrar (accredited)	4%	23%	41%	25%	7%	-0.1	-0.2*
Registrar (unaccredited)	1%	22%	38%	30%	9%	-0.2	
Senior registrar/ fellow	1%	40%	32%	19%	8%	0.1	-0.3
All classifications	4%	25%	46%	19%	6%	0.0	0.0

Figures are rounded.

*2009 WAS applies to all registrars.

A significant number of respondents (46 per cent) were unsure about whether their hospital had processes in place to develop the teaching skills of the clinicians providing training to junior doctors (Table 11). Overall, the response to this question was almost completely neutral, with a very flat picture across all training groups.

This result is similar to the 2009 TES survey result.

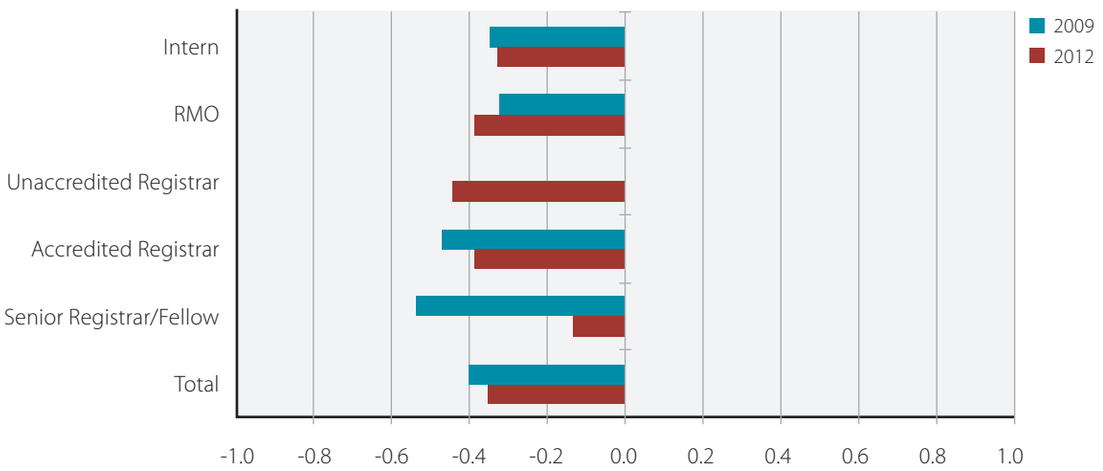
Table 12. The hospital has processes to develop the teaching skills for junior doctors who provide training e.g. to medical students

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2012 WAS	2009 WAS
Intern	4%	20%	26%	40%	10%	-0.3	-0.3
RMO (PGY2+)	4%	18%	25%	40%	13%	-0.4	-0.3
Registrar (accredited)	3%	23%	23%	37%	14%	-0.4	-0.5*
Registrar (unaccredited)	0%	25%	20%	42%	14%	-0.4	
Senior registrar/ fellow	3%	37%	15%	34%	11%	-0.1	-0.5
All classifications	3%	22%	23%	39%	12%	-0.4	-0.4

Figures are rounded.

*2009 WAS applies to all registrars.

Chart 6: The hospital has processes to develop the teaching skills for junior doctors who provide training e.g. to medical students (weighted average score)



More than half (51 per cent) of respondents believed that their hospital did not have processes in place to develop the teaching skills of junior doctors who provide training, for example, to medical students (Table 12 and Chart 6). A slightly negative response to this question was common across all training levels and consistent with the 2009 TES survey response.

Commentary

Hospitals have a responsibility to ensure that educators are trained in the process of supervision and teaching, assist them to develop supervisory and teaching skills, and improve the quality of education and supervision provided to trainees. The survey results reflect that better communication processes are needed to inform junior doctors about the processes that are in place to ensure teaching and education is of a high standard.

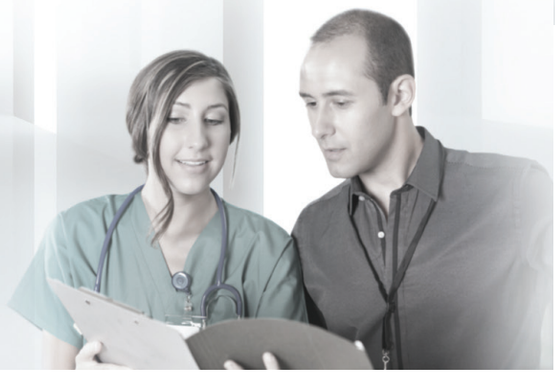
Employing hospitals must demonstrate a commitment to clinical supervision and training by giving greater recognition and support to the supervision and training roles undertaken by clinicians. The AMA supports a range of measures, rewards and incentives that give appropriate recognition to the contribution made by clinical supervisors. These are outlined in the AMA Position Statement on *Supervision and Assessment of Hospital Based Trainees – 2012*, and include recognition of supervision and teaching responsibilities in registrar and consultant work plans, liaison with supervisors regarding the implications for clinical service delivery, and quarantined and remunerated time from service delivery for training and teaching in addition to, and separate from, personal and professional development time.[16]

For interns and residents within the public hospital sector, most direct clinical teaching and supervision is provided by registrars, with consultants providing oversight and support.[17] These results suggest that junior doctors feel no more supported to provide training to their more junior peers than they did three years ago. There is a strong case for better equipping junior doctors and vocational trainees with the skills and knowledge to deliver high-quality clinical teaching in formal and informal training environments.[18]

As the number of medical graduates increases, the expectation that junior doctors will participate in the teaching of medical students and their junior colleagues will continue and grow. Interns, residents and registrars need to be supported in their roles as mentors, teachers and facilitators. Greater systemic investment by hospitals and State governments to provide training to junior doctors in the process of teaching and supervision is required. Collaborative relationships between clinical centres, medical schools, vocational, prevocational and undergraduate educators will help to facilitate that.

Hospital rosters should also reflect teaching commitments, and include allocated time and resources for junior doctors to attend professional development courses to assist them develop supervisory and teaching skills. Courses such as 'Teaching on the Run', the 'Professional Development Program for Registrars' and 'Essential Skills in Medical Education' are valuable in giving junior doctors the necessary knowledge and skills to ensure that the education they deliver is safe, effective and efficient.[14] Consideration should also be given to including teaching competencies in the professional development plans of all trainees.[16]

Supervision, assessment and feedback



Background

Achieving high quality supervision and assessment of medical trainees must be a high priority for the health system. Effective supervision assists in the development of medical professionalism and contributes to improved patient safety, better health outcomes, and faster acquisition of skills by trainees.[19]

Public teaching hospitals have long used established hierarchical structures to deliver clinical services and undertake supervision of trainees. There is often a delicate balance between supervision of junior staff and the need to deliver services in public hospitals. Hospitals at times rely heavily on junior doctors to staff emergency departments, manage and perform surgical processes and procedures, and care for in-patients. It is essential that junior staff are supervised while undertaking their work to ensure safety and quality, and to provide a quality clinical learning experience.

Likewise, it is essential that assessment, feedback and evaluation processes are relevant to the level of clinical practice. Assessment and feedback processes should aim to optimise the capabilities of all trainees by providing motivation and direction for future learning with the goal of producing doctors who are safe, competent, independent practitioners.[20]

The provision of junior doctor feedback is a standard of most specialist college programs, and is explicitly required by the postgraduate medical education councils, which, at a minimum, accredit intern training posts. Educational programs can only be improved if appropriate feedback and evaluation mechanisms are in place.

Results

Table 13. The hospital provides you with adequate and appropriate clinical supervision

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2012 WAS	2009 WAS
Intern	12%	69%	8%	7%	4%	0.8	0.6
RMO (PGY2+)	15%	66%	8%	8%	2%	0.8	0.8
Registrar (accredited)	16%	64%	5%	13%	2%	0.8	0.8*
Registrar (unaccredited)	14%	60%	14%	7%	5%	0.7	
Senior registrar/ fellow	22%	62%	7%	4%	5%	0.9	0.6
All classifications	15%	66%	8%	9%	3%	0.8	0.7

Figures are rounded.

*2009 WAS applies to all registrars.

Chart 7: The hospital provides you with adequate and appropriate clinical supervision (weighted average score)

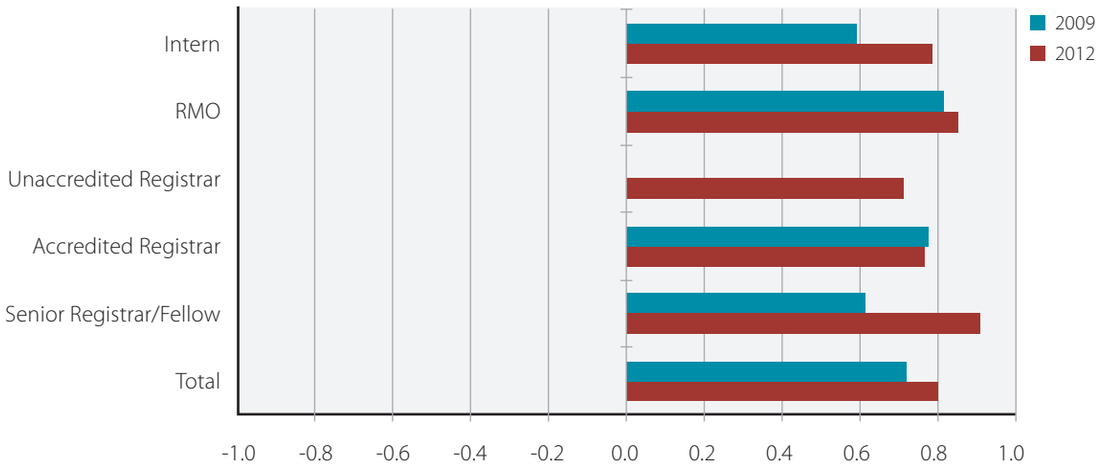


Table 13 and Chart 7 shows the respondents' perceptions on the level of supervision that they were receiving in their hospital. The majority of respondents (81 per cent) believe that their hospital provides adequate supervision and support (responding: 'Strongly agree' or 'Agree'). Consistency was observed across the various trainee groups.

Table 14. The hospital has a mechanism for consultation with, and feedback from, junior doctors regarding their work and training

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2012 WAS	2009 WAS
Intern	14%	64%	7%	10%	5%	0.7	0.6
RMO (PGY2+)	11%	54%	14%	16%	5%	0.5	0.4
Registrar (accredited)	6%	46%	20%	18%	10%	0.2	0.2*
Registrar (unaccredited)	2%	38%	26%	22%	11%	0.0	
Senior registrar/ fellow	5%	44%	19%	22%	10%	0.1	0.2
All classifications	9%	53%	15%	16%	7%	0.4	0.3

Figures are rounded.

*2009 WAS applies to all registrars.

More than half (62 per cent) of the respondents reported that their hospital had a mechanism for consultation with, and feedback from, junior doctors regarding their work and training (Table 14). Almost one-quarter (23 per cent) did not believe such mechanisms were in place. Interns and PGY2+ trainees were more likely to believe that appropriate feedback mechanisms were in place than registrars (accredited, unaccredited and senior).

Table 15. The hospital has a sound and effective process for supervisor assessments and reports, including rights of review

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2012 WAS	2009 WAS
Intern	10%	55%	18%	12%	5%	0.5	0.6
RMO (PGY2+)	7%	53%	25%	12%	4%	0.5	0.4
Registrar (accredited)	5%	47%	29%	13%	6%	0.3	0.2*
Registrar (unaccredited)	4%	40%	33%	16%	7%	0.2	
Senior registrar/ fellow	8%	45%	30%	12%	4%	0.4	0.0
All classifications	7%	51%	25%	13%	5%	0.4	0.4

Figures are rounded.

*2009 WAS applies to all registrars.

More than half of the respondents (58 per cent) agreed that their hospital has a sound and effective process for supervisor assessments and reports, including rights of review (Table 15). This view was consistent across all trainee groups and similar to the 2009 responses. However, increasing consistency across groups was observed.

Commentary

In the face of increasing medical graduate numbers, the demands of service delivery, and changing funding models in public hospitals, it is heartening that the majority of trainees believe that they have access to adequate and appropriate clinical supervision. Effective clinical supervision is a vital component of postgraduate medical education, with evidence suggesting that, when provided effectively, supervision not only improves trainees' performance, but also improves patient outcomes.[19]

Appropriate funding must be dedicated to clinical supervision if the high standard of medical education and training in Australia is to be maintained. Federal and State governments must ensure that sufficient infrastructure and clinical resources are provided to match the planned capacity expansion in prevocational and vocational training.[21] This should include improved subsidy arrangements to attract greater numbers of supervisors to become involved in medical training.

The survey results suggest that current mechanisms to provide feedback to junior doctors about their performance are working well. However, it appears that this perception decreases as trainees' progress through their training. This may reflect the more limited formal feedback processes for registrars, in comparison to those dictated in the ACF[7] for the most junior doctors (interns, PGY2).

Providing feedback to junior doctors, such that they can improve future performance, plays an essential role in learning and professional development in medicine.[22] The continuing positive response to junior doctors' perceptions of supervisor assessment and reporting highlights the success of a number of ongoing national training programs that have begun to establish clear processes for assessment and feedback.

The ACF[7] provides clear direction as to the key skills that junior doctors should acquire in the early postgraduate years and provides a platform for engendering a more consistent approach to the formal assessment of junior doctors. This is an essential element in supporting junior doctors to meet their learning goals. Supervisors can use the ACF to set appropriate trainee goals for the term they are supervising. Self-assessment by trainees against this framework is also encouraged and provides a basis for discussing progress and the future direction of training.

For vocational trainees, the provision of feedback is critical for learning, especially when acquiring more advanced clinical skills. The Australian Medical Council has defined standards to guide the specialist colleges, and in turn hospitals, in the attainment of supervisor assessments and reports, as well as rights of review. Hospital feedback processes must be in accordance with professional standards and the applicable industrial agreements.

Research

Background

Australia's exceptional standards in health care reflect its commitment to health and medical research. While not all clinicians are researchers, those with an academic interest should be supported to participate in scientific endeavours. This is crucial for the development of a sustainable clinical academic workforce.

Undertaking research equips trainees with essential skills in literature appraisal and study design. It also assists with the translation of research outcomes into evidence-based practice, which ultimately results in improved patient care.[23]

Unfortunately, there are numerous barriers to trainees engaging with academic practice. The 2012 AMA TES survey asked three questions of junior doctors in relation to hospital support of research and related activities.

Results

Table 16. The hospital allocates sufficient quarantined time for research activities on a regular basis

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2010 WAS
Intern	0%	3%	53%	31%	14%	-0.6
RMO (PGY2)	0%	2%	42%	40%	17%	-0.7
RMO (PYG3 & later)	1%	2%	39%	26%	32%	-0.9
Registrar (accredited)	0%	6%	25%	37%	33%	-1.0
Registrar (unaccredited)	0%	1%	28%	43%	27%	-1.0
Senior registrar/fellow	1%	14%	15%	38%	32%	-0.8
All classifications	0%	4%	37%	35%	24%	-0.8

Figures are rounded.

The majority of respondents (59 per cent) believed that their hospital did not allocate enough protected time for research activities (Table 16). This view was reasonably consistent across the various classifications, with registrars the most critical. The proportion of respondents who were "not sure" decreased in a step-wise fashion from interns through to senior registrars.

Table 17. The hospital has processes to develop the research skills of interested junior doctors

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2010 WAS
Intern	1%	16%	41%	30%	11%	-0.4
RMO (PGY2)	0%	13%	38%	35%	14%	-0.5
RMO (PYG3 & later)	1%	13%	39%	27%	19%	-0.5
Registrar (accredited)	3%	21%	31%	30%	16%	-0.3
Registrar (unaccredited)	0%	11%	30%	33%	26%	-0.7
Senior registrar/fellow	4%	23%	19%	27%	26%	-0.5
All classifications	2%	16%	35%	31%	16%	-0.4

Figures are rounded.

Almost half the respondents (47 per cent) disagreed that their hospital had processes in place to develop research skills (Table 17). Overall, 35 per cent were "not sure", including more than 40 per cent of interns.

Table 18. The hospital supports junior doctors to present their research at relevant local, regional and national conferences/events

Classification	Strongly agree	Agree	Not sure	Disagree	Strongly disagree	2010 WAS
Intern	2%	22%	57%	13%	6%	0.0
RMO (PGY2)	1%	26%	54%	11%	8%	0.0
RMO (PYG3 & later)	1%	18%	46%	20%	15%	-0.3
Registrar (accredited)	4%	33%	41%	15%	7%	0.1
Registrar (unaccredited)	4%	28%	37%	19%	12%	-0.1
Senior registrar/fellow	5%	32%	29%	23%	11%	0.0
All classifications	3%	26%	47%	15%	9%	0.0

Figures are rounded.

This question attracted the highest number of "not sure" responses. Support for the statement was highest among accredited and senior registrars (37 per cent). Only 24 per cent of interns were agreed or strongly agreed (Table 18).

Commentary

Academic communities around the world believe that there is a need to strengthen clinical academic pathways for medical trainees. This is essential for the sustainability of academic medicine, the encouragement of innovation, and the translation of scientific evidence into clinical practice.[24]

Unfortunately, there are significant disincentives for trainees to pursue clinical academia. These include poorly defined career structures, limited employment opportunities, funding shortages, and comparatively lower incomes. In addition, there is often insufficient workplace flexibility to allow doctors to effectively combine research, clinical practice and training.[25,26,27]

These observations are supported by the results described above. A majority of trainees thought they had inadequate access to quarantined time for research and nearly half felt their hospital was not assisting junior doctors to acquire research skills. Likewise, only 29 per cent of respondents felt they were supported to attend relevant conferences and seminars to present their findings.

Perhaps even more disturbing is the high percentage of respondents that were "not sure" of the research opportunities available to them. This was particularly evident among the more junior respondents. Sub-optimal communication may explain this result.

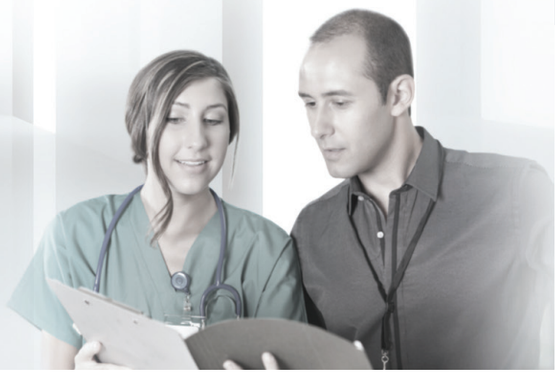
The establishment of an articulated clinical academic pathway for medical students, trainees and senior doctors could help turn these statistics around. This would necessarily require the expansion of academic opportunities in health services.

The literature suggests that attainment of a higher degree, the opportunity to publish, protected academic time, and flexible entry and exit points can positively influence a trainee's decision to combine academic study with specialist training.[28,29] This list provides a template for health services that are looking to improve their support of academic clinicians.

Models deployed in other settings, such as the Academic Foundation Programme in the United Kingdom (UK),[30] should inform the development of a clinical academic pathway in Australia. The UK Programme allows junior doctors to undertake research, education or leadership activities as part of their prevocational training. It has been successful in stimulating an interest in research among foundation and specialist trainees, with 89 per cent of trainees describing their experience as worthwhile.[31]

The results of this section of the survey suggest that Australian health services have a long way to go in improving their support of trainees interested in clinical and non-clinical research.

Conclusions and recommendations



Quality clinical training, education and supervision in public hospitals underpin medical education in Australia and should be seen as an investment in the future health care for Australian communities.

The 2012 AMA TES survey of junior doctors delivers mixed results for public teaching hospitals in Australia. While there are indications that the medical education system is coping despite large increases in training capacity, there is significant room for improvement in a number of areas.

The 2012 AMA TES survey suggests that junior doctors believe hospitals perform at or above expectations in:

- providing access to educational and information resources;
- providing adequate and appropriate clinical supervision;
- regular clinical meetings;
- easy access to computer facilities;
- consultation and feedback mechanisms; and
- supervisor assessments and reports, and rights of review.

Areas where junior doctors thought there was room for improvement included:

- quarantined time for research;
- processes to develop research skills;
- support for part-time/flexible hours;
- access to office space; and
- providing teaching skills for junior doctors.

The 2012 AMA TES survey results highlight that the medical training system performs best for junior doctors in situations where educational goals are clearly defined, namely during internship and vocational training. Conversely, junior doctors not in structured training programs, PGY2+ and unaccredited registrars, generated some of the most negative responses in the survey.

The 2012 survey results were very similar to the results of the 2009 TES survey, with both the negative and positive results corresponding closely. Given the growth in demand for medical education and training, the similarity of the results is remarkable and reflects a health system that is coping, so far, with the large expansion of the medical training pipeline. This begs the question: how many more trainees will it take before the quality of training, education and supervision begins to fall?

More importantly, how will we know? There is currently no measure, assessment or marker for the quality of medical training within public hospitals. Surveys such as this and the AMA's specialist trainee survey provide small snapshots. Accreditation of medical schools, intern positions and specialist training provide some safeguards for the delivery of quality training but does not cover the entire training continuum nor assess the quality of the training that is delivered.

Ensuring the quality of medical education and training for the burgeoning medical training pipeline must be a priority area for immediate and significant investment. The AMA is calling for:

- increased educational oversight for prevocational doctors beyond PGY2+, with increasing integration of unaccredited registrar posts into vocational training;
- recognition and development of the role of junior doctors as teachers and trainers with the provision of education and resources to develop the teaching skills of junior doctors;
- improved provision of flexible working hours by both employers and vocational training providers;
- the urgent development of an articulated clinical academic pathway for medical students, trainees, senior doctors and existing clinical academics;
- the exploration of robust and transparent funding models for teaching and training, ensuring that investment in these activities is adequate with indexed, protected funding; and
- a framework for measuring the quality of medical training. This should include consideration of a national training survey, development of key performance indicators, and inclusion in the National Health Performance Authority's performance and accountability framework.

Implementation of the AMA's plan will ensure that Australia maintains a world-class medical education system and a highly-skilled medical workforce. This is in the best interests of all Australians.

The AMA will continue its work in advocating for all trainees to be provided with a quality clinical training experience from medical school through to the completion of vocational training, and to encourage innovation and the translation of educational research into evidence-based practice. Not only will this produce well trained doctors, it will result in improved patient safety and quality of care, and better health outcomes.

Training, education and supervision should not be considered an afterthought. Effective training, education and supervision are critical to the safety of patients and the welfare of junior doctors and should be at the heart of improving patient care and outcomes. Linking quality training to safe, quality health care must be the next paradigm.

Glossary

Intern	A graduate of an Australian Medical Council (AMC) accredited medical school who is undertaking the year of supervised clinical training. The intern year, also known as the postgraduate year 1 (PGY1), is undertaken primarily in a public hospital.
Junior doctor	Also known as a doctor-in-training or junior medical officer (JMO), a doctor undertaking postgraduate (prevocational or vocational) medical training.
Medical education continuum	The continuous process of medical education from undergraduate, prevocational and vocational training progressing through to continuing professional development throughout a doctor's career.
Prevocational training	The time spent by a junior doctor between graduation and commencing vocational training. Usually consists of two years: internship and PGY2, but can also include years of training beyond this, including unaccredited or service registrar positions. *Postgraduate year 1 (PGY 1):* the year of supervised clinical training completed by graduates of an Australian Medical Council (AMC) accredited medical school. Also known as the intern year. *Postgraduate year 2 (PGY 2):* the year of structured rotations through supervised clinical training placements commenced once medical practitioners have completed their internship and gained general medical registration. Also known as the first-year Resident Medical Officer year or Hospital Medical Officer year.
Registrar	Also known as a trainee, a junior doctor undertaking medical specialist training. Registrars are usually enrolled in specialist training programs and are therefore vocational trainees, although registrars in service positions or unaccredited registrars have yet to enter a specialist training program. *Basic training:* a period of defined training required by some specialist medical colleges to be undertaken in order to meet eligibility criteria for entering an advanced training program. *Advanced training:* a period of defined and structured education and training that, when successfully completed, will result in eligibility to apply for fellowship of a specialist medical college and to practise as a specialist. In some cases this must be preceded by completion of basic training requirements.
RMO	Resident Medical Officer: a junior doctor undertaking structured rotations through supervised clinical training placements, mostly in public hospitals, following completion of the intern year. Also known as Hospital Medical Officer.
Specialist	A medical practitioner who has successfully completed vocational medical training and the other requirements of a specialist medical college and been awarded Fellowship of the college.
Unaccredited registrar	Positions are usually occupied by non-specialist doctors who are neither resident medical officers in prevocational training nor vocational trainees affiliated with a specialty college or career medical officers (CMOs). Synonymous titles include 'principal house officer''unaccredited trainee' and 'service registrar'.
Vocational training	The necessary training for a chosen medical specialty. Implies enrolment in a specialist training program.

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