**Genetic Specialists  
Professional Status Survey**

**Abbreviated information and consent to participate**

This survey has three aims:

1. To provide a census of demographics, practice and work conditions of genetic counsellors and clinical geneticists trained or working in Australasia
2. To examine current and anticipated training and practice in genomics
3. To solicit feedback about your professional body.

This information will help design better programs and activities, as well as help to better represent you in a range of situations.

The target audience for this survey is anyone who gained, or is studying for, a genetic counselling or clinical genetics qualification, advanced training or accreditation in Australasia AND/OR anyone who currently works as a genetic counsellor or clinical geneticist in Australasia. You may fulfill one or more of these criteria or be qualified for multiple, relevant disciplines, such as genetic pathology.

It doesn’t matter if you feel you don't know much about genomics, or don’t incorporate it into your practice at the moment; your opinions, views and experiences are valuable to us.

***Please read about the survey in the information below. You can access the survey at the bottom of this page by clicking “Yes”. By clicking “Yes” you are providing consent to participate in this research study by completing the survey.***

[local wording about HREC/IRB requirements, consent, privacy, confidentiality, benefits, etc.]

By selecting the “**Yes**” checkbox below you agree to consent to completing the survey.

If you decide not to complete the survey now, we thank you for your interest in our study. You can always complete the survey at a later date.

Note: You can stop the survey at any time, saving your answers, by clicking ‘Return later’. Make sure you write down the code that will appear on your screen as each code is unique! Use the same survey link, then click on the "Returning?" button in the top right hand corner and enter your code.

|  |  |
| --- | --- |
| Please tick "**Yes**" if at least one of the following criteria apply to you.   * You gained, or are studying for, a genetic counselling or clinical genetics qualification, advanced training or accreditation in Australia or New Zealand; and/or * You currently work as a genetic counsellor or clinical geneticist in Australia or New Zealand.   *Please note, we expect many people will fulfil both of these criteria and some people may also be qualified for other multiple, relevant disciplines, such as genetic pathology. We welcome all these perspectives.* | * **YES**, and I consent to participate in this research by completing this survey. * **NO**, the inclusion criteria do not apply to me so I am ineligible to participate in this research. |

**Instructions**

**Thank you for taking part in this study.**

This is the first time the Australasian Society for Genetic Counsellors (ASGC) and the Australasian Association of Clinical Geneticists (AACG) have conducted a joint, Professional Status Survey, and as such this survey is quite detailed in parts. In addition, the Workforce Development Program of the Australian Genomics Health Alliance will use these data to examine the impact of genomics on workforce training and planning.

The survey is divided into five sections, with some sections being shorter than others:

1. About you
2. Employment
3. Genomics in your practice
4. Education and professional development
5. About your professional body (the ASGC or AACG)

We appreciate the survey is lengthy. We designed and piloted it to ensure we only ask questions that provide critical information to shape the future genetics and genomics health professional workforce, and the organisations that represent you. There is a blue progress bar at the top of each page and the survey automatically shows/hides questions based on your responses to minimise the time commitment. You can also complete the survey over more than one session.

Navigation tips

* Click on the Next and Previous buttons at the bottom of a page to save your answers and move to the next/previous page. **Don’t use the back button on your browser or keyboard as this will not save your answers.**
* If you are accessing the survey on a mobile device, the survey is best viewed in landscape (sideways) mode.
* You can complete the survey over more than one session. Click on the 'Return later' link to save your answers to date and come back later to answer. Make sure you write down the login code generated by REDCap, as you will need that code to access the survey you have already started. Use the same survey link, then click on the "Returning?" link in the top right hand corner and enter your code. (Note: you will need to type the code, not copy and paste). The survey will then open at the last page you completed. You can return as many times as you want, as long as you do not finalise the survey. Once you finalise, your unique link will not work.

We realise that some questions appear repetitive, but it is important that you complete as many questions as possible. If you are unsure about how to answer a question, please give the best answer you can.

Some terms are defined and these appear with an asterisk (\*) or dotted underline in the survey.

**Your responses will be strictly confidential.**

At the end of the survey you will have the following options:

* provide your contact details to receive a copy of the results directly; and/or
* provide your contact details to be contacted for telephone interview; or
* complete the survey only and not provide any contact details.

If you choose to provide your name and contact, we will store these data separately from your survey responses.

For clarification of any questions please contact [local contact name].

**Section 1 of 5: General information about you**

This section gathers demographic information about genetic counsellors and clinical geneticists in Australasia, as well as formal education and training pathways, job types and membership/roles in local and international professional organisations.

Your responses may cause some questions to appear/disappear. This is a normal function of this survey to keep it as short as possible.

Please note, all responses will be reported in a collective way so that specific individuals cannot be identified in any way.

Note: words with a dotted underline and asterix\* have a definition on roll-over.

1. What is your gender?

|  |  |  |  |
| --- | --- | --- | --- |
| * Male | * Female | * Other | * Prefer not to answer |

1. What is your age bracket?

|  |  |  |
| --- | --- | --- |
| * 24 or under * 25–34 | * 35–44 * 45–54 | * 55–64 * 65 or over |

1. Where are you located? *Select one option*

* Australia
* New Zealand
* Other
  1. **If Australia, which state?**

|  |  |  |  |
| --- | --- | --- | --- |
| * ACT * NSW | * NT * QLD | * SA * TAS | * VIC * WA |

1. What academic qualifications do you have? *Select all that apply and provide details, e.g., Master of Genetic Counselling (University of Sydney), 2006; MBBS (University of Adelaide), 1991, etc.*

* Nursing (incl. midwifery)
* Bachelor degree (incl. Honours)
* MBBS/MD
* Grad. Cert or similar
* Grad. Dip or similar
* Masters
* PhD
* Other

1. What profession are you qualified for, accredited in or studying towards? *Select one option*

* Genetic counsellor
  1. What is your current level of genetic counselling certification? *Select one option*
* Certified Genetic Counsellor
* Associate Genetic Counsellor
* Completed a Masters or Graduate Diploma in Genetic Counselling but not started or not planning to complete certification
* Currently undertaking a Masters of Genetic Counselling
* Other
  1. What is your job title/s? *If you have many roles select all that apply. If your role is not on the list, select the most similar role, or choose ‘Other’ and specify. If you are currently on temporary leave such at maternity leave, select your usual job title/s.*
* Genetic Counsellor (including Principal or Senior roles)
* Associate Genetic Counsellor
* Genetic Associate
* Family History Assessor
* Research Genetic Counsellor
* Research Assistant/Coordinator/Officer
* Clinic Coordinator
* Intake Assistant
* Education Officer
* Project Officer
* Other (optional)
* Not employed
* Clinical geneticist

1. What is your current level of certification as a clinical geneticist? *Select all that apply, including options for dual trainees*

* Fellow of the Royal Australasian College of Physicians
* Advanced Trainee of the Royal Australasian College of Physicians
* Fellow of the Royal College of Pathologists of Australasia
* Advanced Trainee of the Royal College of Pathologists of Australasia
* Other

1. What is your job title/s ~~as a clinical geneticist~~? *If you have many roles select all that apply. If your role is not on the list, select the most similar role, or choose ‘Other’ and specify. If you are currently on temporary leave such at maternity leave, select your usual job title/s.*

* Clinical Geneticist
* Clinical Geneticist Advanced Trainee
* Genetic Pathologist
* Genetic Pathologist Advanced Trainee
* Paediatrician
* Research Fellow
* Other (optional)
* Not employed
* Medical specialist working in genetics, *e.g.,* oncologist or metabolic physician

1. As a medical specialist working in genetics, what is your job title?

* Other → *REDCap coding instruction go to SURVEY STOP “Thank you for your interest in our research but this survey is only for health professionals qualified to, or working in, genetics.”*

1. Please indicate your membership or accreditation of any relevant associations. Also indicate if you hold, or have previously held, any formal role, such as state branch committee or Board of Censors. *Select all that apply* [adapt for local context]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Student member | Member | Fellow | Formal role, *e.g.,* Committee or  Board of Censors |
| Human Genetics Society of Australasia |  |  |  | Specify role…… |
| Australasian Society of Genetic Counsellors |  |  |  | Specify role…… |
| Australasian Association Clinical Geneticists |  |  |  | Specify role…… |
| Australasian Society for Diagnostic Genomics |  |  |  | Specify role…… |
| Royal Australasian College of Physicians |  |  |  | Specify role…… |
| Royal College of Pathologists of Australasia |  |  |  | Specify role…… |
| Other (*e.g.,* national or international): |  |  |  | Specify role…… |

1. What attracted you to your field?
2. Did you work in a different field before moving into your current field?

* Yes
  1. If yes, please provide former job title/s and type of employer (*e.g.,* Aged Care support   
     services in a hospital)
* No

**Section 2 of 5: Employment**

This section gathers information about your employment to help define the Australasian genetics workforce. We will ask you to provide information about all roles you may have in genetics or health, including research or education, that you feel are related to your qualification; roles may be clinical or non-clinical.

We will ask about: role type, location, contract and funding source; full-time vs part-time work; salary and benefits; time spent on different tasks; and job satisfaction. If you work in a clinical role, we will also ask some questions about the service you provide. Lastly, we will ask you to reflect on your future career plans.

This detailed information will enable us to compare workforce trends, service delivery and remuneration within professions and across regions.

Remember words with a dotted underline and asterix\* have a definition on roll-over.

**Current employment – overall**

1. How long have you been working in your field\*?   
   *Do not include time in volunteer roles.   
   If you have had time out from your role/work (e.g., maternity leave), indicate the total time that you have been employed, not time elapsed between start and now. Part-time employment should be considered the same as full-time, e.g., 5 years of part-time employment or 5 years of full-time employment would both be considered 5 years.*

|  |  |
| --- | --- |
| * Still studying/training * Less than a year * 1‒2 years * 3‒4 years | * 5‒9 years * 10‒19 years * 20 or more years |

\* REDCap rollover definition: *Field includes any roles in genetics or health, including research or education, that you feel are related to your qualification; roles may be clinical or non-clinical*

1. Are you currently employed in any capacity related to genetics, health or research? *This may be clinical or non-clinical. Select as many as apply, if you have multiple jobs*

* Yes
* Self-employed
* Volunteer work → *REDCap coding instruction go to Future Employment if tick ‘Volunteer’ only*
* No → *REDCap coding instruction go to Future Employment*

1. What is the annual salary for all jobs combined, before tax, including any employer superannuation or pension contribution?\* *For this survey, New Zealand dollars are considered equal to Australian dollars. If your salary is in another currency, convert the salary to Australian dollars using* [*this link*](http://www.xe.com)

|  |  |
| --- | --- |
| * Less than AU $10,000 * AU $10,000‒29,000 * AU $30,000‒49,000 * AU $50,000‒69,000 * AU $70,000‒89,000 * AU $90,000‒109,000 | * AU $110,000‒129,000 * AU $130,000‒149,000 * AU $150,000‒169,000 * AU $170,000‒189,000 * AU $190,000 or more |

\* REDCap rollover definition: *This information is important to compare remuneration within professions and across regions.*

1. How many jobs do you have that are related to genetics, health or research in any capacity?   
   *This* *question aims to help us understand the funding sources for varied jobs and roles that clinical geneticists and genetic counsellors may work in. Therefore, here we define each ‘job’ as each role funded by a single funding source; this is irrespective of who may actually pay your salary. For example, all of the following scenarios would be considered 2 jobs:*

* *A person employed by 2 hospitals even if he/she provides the same service with the same job title at each hospital.*
* *A person working across 2 roles/projects at one location, provided each role/project is funded by a different source.*
* *A person working as both a clinician and a researcher, provided each role/project is funded from a different source.*

*We will ask you to provide details about each job, such as EFT and funding levels, in later questions.*

* 1
* 2
* 3
* 4 or more

*REDCap coding: repeat questions 13 through to 21 for each job.*

1. What is the title of your primary job?.......................................................................................................

*REDCap coding: pipe job title into each question.*

**Current employment – practical aspects**

*This section focuses on practical aspects of your current job/s.*

*We appreciate this section may take some time to complete for people who have multiple jobs as these eight questions need to be repeated for each job. For this survey we define each 'job' as each role you may have, funded by a single funding source.*

*Completing these questions 'per job' rather than as totals across all jobs allows us to determine the scope of the current workforce in terms of the number of full-time equivalent positions versus numbers of people employed. Please start by completing this section for your primary job, \_\_\_\_\_\_.*

1. For your primary job, \_\_\_\_*(REDCap piping)*\_\_\_\_, what is the full time equivalent (FTE or EFT) of this job, excluding overtime?\* *Drag the slider to indicate your FTE, e.g., 0.5, 0.8, 1.0*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 0.0 |  | 0.5 |  | 1.0 |
|  |  | ◆ |  |  |

*\* REDCap rollover definition: This question may seem repetitive but many people hold several jobs, which may or may not total 1.0 FTE. We aim to capture information about each job, as well as overall*

1. For your primary job, \_\_\_\_\_, would you like to work more weekly hours?

* Yes
  + Why? ..................................................................................................................................
* No
  + Why.....................................................................................................................................
* Unsure

1. For your primary job, \_\_\_\_\_, which of the following do you have access to? *Select all that apply*

* Paid overtime
* Work time in lieu
* Authorised/Accrued Days Off (ADOs)
* Rostered Days Off (RDOs)
* None of the above
* Unsure

1. For your primary job, \_\_\_\_\_, on average, how many extra hours do you work per week that are not paid or ineligible for ADOs, RDOs or time in lieu? *Select one option*

* None
* Less than 3 hrs
* 3‒5 hrs
* 5–8 hrs
* 8 hrs or more

1. For your primary job, \_\_\_\_\_, what is the employment status? *Select one option*

* Permanent, ongoing position
* Defined contract for a set period (*e.g.,* 2 years, maternity leave position)
  + If contract, please specify the duration.............................................
* Casual on an ‘as‐needs’ basis, *e.g.,* locum position
* Research project‐based (so role ends when project ends)
* Self-employed
* Other

1. For your primary job, \_\_\_\_\_, who is your mainemployer? *Select one option*

* Public hospital or healthcare provider
* Public pathology provider
* Private hospital or healthcare provider
* Private pathology provider
* University or education provider
* University within a hospital or healthcare setting
* Research institute
* Community health centre
* Government
* General practice
* Self-employed
* Private practice, including pathology
* Patient advocacy or support group
* Other
* Don’t know
* Not applicable

1. For your primary job, \_\_\_\_\_, how is it mainly funded? *Select one option*

* Hospital
* State or regional government department of health
* Federal or national government department of health
* Research institute
* Research grant
* University
* Private practice setting, including ultrasound
* Private genetic testing laboratory
* Other
* Don’t know
* Not applicable

1. For your primary job, \_\_\_\_\_, in the past year, how often did you work in the following locations? *Select one option per row*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Never\* | Daily | Weekly | Monthly | Quart-erly | Once or twice | Don’t know | Not applicable\*\* |
| Metropolitan location/s |  |  |  |  |  |  |  |  |
| Regional or rural location/s |  |  |  |  |  |  |  |  |
| Home visit/s |  |  |  |  |  |  |  |  |
| Other……………………. |  |  |  |  |  |  |  |  |

\* REDCap rollover definition: *Choose ‘Never’ if this could be part of your role but you do not spend any time at this location.*

\*\* REDCap rollover definition: *Choose ‘Not applicable’ if this is not part of your role.*

*REDCap: Hidden full time employment calculator.*

*The following questions relate to different types of work in jobs related to genetics and health. If you have more than one job, please answer as a total across all your jobs. Your responses may cause some questions to appear/disappear. This is a normal function of this survey to keep it as short as possible.*

1. What sort of work does your job/s involve? *If your job/s varies, select all that apply*

* Clinical → *REDCap coding instruction open panel of questions re clinical and lab roles (Q.A–E)*
* Laboratory → *REDCap coding instruction open panel of questions re clinical and lab roles (Q.A–E)*
* Research → *REDCap coding instruction go to question re time spent on different activities*
* Education → *REDCap coding instruction go to question re time spent on different activities*
* Government/policy → *REDCap coding instruction go to question re time spent on different activities*
* Other

**[For respondents working in clinical and laboratory roles]**

*For respondents working in clinical and/or laboratory roles, these questions focus on clinical aspects of your job. Please answer these questions across all jobs, selecting all that apply for some questions.*

*We appreciate these questions may seem overly detailed and it can be difficult to determine patient numbers or time spent on tasks; an estimate or average is sufficient to assist with workforce planning.*

1. In what area is your job based? *Select all that apply*

* Main metropolitan service, *e.g.,* teaching hospital in a large city
* Outreach service based in a metropolitan centre
* Outreach service based in a regional centre
* Other

1. What is your work setting? *Select all that apply and use ‘Other’ to describe roles outside these options*

* As sole genetic counsellor or clinical geneticist as part of clinical genetics unit or service
* As sole genetic counsellor or clinical geneticist but not in a clinical genetics unit or service
* As part of a team in a clinical genetics unit or service
* As part of a team but not in a clinical genetics unit or service
* As part of a laboratory team but I’m the only genetic counsellor
* As part of a laboratory team but I’m the only clinical geneticist
* Other
* I don’t work in a clinical or laboratory role
* Not applicable

1. What areas of genetics do you encounter? *Select all that apply*

* Pre-pregnancy/reproductive genetics\*
* Pregnancy/prenatal genetics\*\*
* Paediatric genetics
* General genetics
* Cancer genetics
* Cardiac genetics
* Neurogenetics
* Metabolic genetics
* Other
* I don’t work in a clinical or laboratory role
* Not applicable

\* REDCap rollover definition: *Reproductive genetics would be with patient/s who are not currently pregnant but are seeking information for pregnancy planning, and may include population carrier screening.*

\*\* REDCap rollover definition: *Pregnancy genetics would be with patient/s who are currently pregnant and may include population carrier screening.*

1. In a typical month, how many patients of each of the following patient ‘types’ do you see? *Select one option per row*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | None\* | 1–5 | 6–10 | 11–15 | 16–20 | >20 | Don’t know | Not applicable\*\* |
| Pre-pregnant\*\*\* |  |  |  |  |  |  |  |  |
| Pregnant\*\*\*\* |  |  |  |  |  |  |  |  |
| Paediatric |  |  |  |  |  |  |  |  |
| Adult |  |  |  |  |  |  |  |  |
| Other |  |  |  |  |  |  |  |  |

\* REDCap rollover definition: *Choose ‘None’ if this could be part of your role but you do not spend any time on this.*

\*\* REDCap rollover definition: *Choose ‘Not applicable’ if this is not part of your role.*

\*\*\* REDCap rollover definition: *Pre-pregnancy genetics would be with patient/s who are not currently pregnant but are seeking information for pregnancy planning.*

\*\*\*\* REDCap rollover definition: *Pregnancy genetics would be with patient/s who are currently pregnant and may include population carrier screening.*

1. Typically how long do you spend on the following activities per patient? This is EXCLUDING patients undergoing whole exome/genome sequencing (WES/WGS); we will ask about those tests in the next section.   
   *Select one option per row. Choose 'No time' if this could be part of your role but you do not spend any time on this. Choose 'Not applicable' if this is not part of your role or you do not see a type of patient*

|  | No time\* | 0–30 min | 31–60 min | 1–2 hours | >2 hours | Don’t know | Not applicable\*\* |
| --- | --- | --- | --- | --- | --- | --- | --- |
| * 1. Initial intake call (if applicable) |  |  |  |  |  |  |  |
| Pre-pregnant\*\*\* |  |  |  |  |  |  |  |
| Pregnant\*\*\*\* |  |  |  |  |  |  |  |
| Paediatric |  |  |  |  |  |  |  |
| Adult |  |  |  |  |  |  |  |
| Other |  |  |  |  |  |  |  |
| * 1. Initial consultation (phone or face-to-face) |  |  |  |  |  |  |  |
| Pre-pregnant\*\*\* |  |  |  |  |  |  |  |
| Pregnant\*\*\*\* |  |  |  |  |  |  |  |
| Paediatric |  |  |  |  |  |  |  |
| Adult |  |  |  |  |  |  |  |
| Other |  |  |  |  |  |  |  |
| * 1. Coordinating testing, e.g.,  determining test options, completing forms, liaising with lab staff, tracking samples and progress, etc. |  |  |  |  |  |  |  |
| Pre-pregnant\*\*\* |  |  |  |  |  |  |  |
| Pregnant\*\*\*\* |  |  |  |  |  |  |  |
| Paediatric |  |  |  |  |  |  |  |
| Adult |  |  |  |  |  |  |  |
| Other |  |  |  |  |  |  |  |
| * 1. Researching and interpreting results *If you spend different amounts of time researching and interpreting results for different patient types, please provide an average* |  |  |  |  |  |  |  |
| Pre-pregnant\*\*\* |  |  |  |  |  |  |  |
| Pregnant\*\*\*\* |  |  |  |  |  |  |  |
| Paediatric |  |  |  |  |  |  |  |
| Adult |  |  |  |  |  |  |  |
| Other |  |  |  |  |  |  |  |
| Literature and database searches related to counselling |  |  |  |  |  |  |  |
| Clinical meetings and consultations regarding patient care |  |  |  |  |  |  |  |
| Analysing test results, including literature and database searches\*\*\*\*\* |  |  |  |  |  |  |  |
| Other |  |  |  |  |  |  |  |
| * 1. Further consultations (phone or face-to-face) |  |  |  |  |  |  |  |
| Pre-pregnant\*\*\* |  |  |  |  |  |  |  |
| Pregnant\*\*\*\* |  |  |  |  |  |  |  |
| Paediatric |  |  |  |  |  |  |  |
| Adult |  |  |  |  |  |  |  |
| Other |  |  |  |  |  |  |  |
| * 1. Follow up activities, *e.g., referrals to other departments/ agencies, general psychosocial follow-up, further testing, attending to family communication issues, chasing up investigations, summary letters, etc.* |  |  |  |  |  |  |  |
| Pre-pregnant\*\*\* |  |  |  |  |  |  |  |
| Pregnant\*\*\*\* |  |  |  |  |  |  |  |
| Paediatric |  |  |  |  |  |  |  |
| Adult |  |  |  |  |  |  |  |
| Other |  |  |  |  |  |  |  |
| * 1. Administration |  |  |  |  |  |  |  |
| Attending to administrative issues related to patient care, *e.g., data entry, coordinating appointments, etc.* |  |  |  |  |  |  |  |
| Other |  |  |  |  |  |  |  |

\* REDCap rollover definition: *Choose ‘No time’ if this could be part of your role but you do not spend any time on this.*

\*\* REDCap rollover definition: *Choose ‘Not applicable’ if this is not part of your role or does not apply to your patients.*

\*\*\* REDCap rollover definition: *Pre-pregnancy genetics would be with patient/s who are not currently pregnant but are seeking information for pregnancy planning, including carrier screening.*

\*\*\*\* REDCap rollover definition: *Pregnancy genetics would be with patient/s who are currently pregnant and may include population carrier screening.*\*\*\*\*\* REDCap additional instructions for this variable: *Please do not include time estimates to interpret WES/WGS.*

**[For all respondents]**

1. In the past year, how often did you participate in the following activities? *Select one option per row; an estimate is sufficient.   
     
   We appreciate your patience if these questions seem tedious; the data will help workforce planning and budgets across all aspects of patient care, including outside the clinic, such as research, education, training and policy.*

|  | Never\* | Daily | Weekly | Monthly | Bimonthly/ Quart-erly | Once or twice | Don’t know | Not applicable\*\* |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| * 1. Research |  |  |  |  |  |  |  |  |
| Clinical |  |  |  |  |  |  |  |  |
| Public health, including education or ELSI\*\*\* |  |  |  |  |  |  |  |  |
| Laboratory |  |  |  |  |  |  |  |  |
| Bioinformatics |  |  |  |  |  |  |  |  |
| Other research activity………………… |  |  |  |  |  |  |  |  |
| * 1. Clinical supervision |  |  |  |  |  |  |  |  |
| Formal supervision for yourself |  |  |  |  |  |  |  |  |
| Formal supervision of others, including placement students and trainees, or qualified health professionals |  |  |  |  |  |  |  |  |
| Informal supervision/mentoring for yourself |  |  |  |  |  |  |  |  |
| Informal supervision/mentoring of others |  |  |  |  |  |  |  |  |
| * 1. Educating other health professionals\*\*\*\* |  |  |  |  |  |  |  |  |
| Develop or teach an accredited university/college subject or course (*e.g.,* for an undergraduate or postgraduate degree, or fellowship training) |  |  |  |  |  |  |  |  |
| Supervise or advise a student research project, e.g., Master of Genetic Counselling |  |  |  |  |  |  |  |  |
| Present an internal seminar to genetic or genomichealth professionals |  |  |  |  |  |  |  |  |
| Present an internal seminar to non-genetic or genomic health professionals |  |  |  |  |  |  |  |  |
| Provide informal or formal advice to colleagues and other professionals |  |  |  |  |  |  |  |  |
| Present an external seminar to genetic or genomichealth professionals |  |  |  |  |  |  |  |  |
| Present an external seminar to non-genetic or genomic health professionals |  |  |  |  |  |  |  |  |
| Develop or organise a conference, workshop or symposium for other genetic or genomic health professionals |  |  |  |  |  |  |  |  |
| Develop or organise a conference, workshop, or symposium for non-genetic or genomic health professionals |  |  |  |  |  |  |  |  |
| Develop or examine professional competencies (*e.g.,* Board of Censors, Chief Examiner) |  |  |  |  |  |  |  |  |
| * 1. Educating others\*\*\*\* |  |  |  |  |  |  |  |  |
| Organise or participate in community outreach/education |  |  |  |  |  |  |  |  |
| Develop patient education materials |  |  |  |  |  |  |  |  |
| Develop or organise a patient conference, workshop or symposium |  |  |  |  |  |  |  |  |
| Serve as a journal reviewer |  |  |  |  |  |  |  |  |
| Serve on a journal editorial board |  |  |  |  |  |  |  |  |
| Other educational activity…………………… |  |  |  |  |  |  |  |  |
| * 1. Administration and professional activities |  |  |  |  |  |  |  |  |
| Management or administration of clinical services |  |  |  |  |  |  |  |  |
| Develop, coordinate, serve as a resource, or serve on an advisory board for support groups or voluntary organisations |  |  |  |  |  |  |  |  |
| Serve on a workplace, hospital, local or national committee addressing the delivery of health or genetic services |  |  |  |  |  |  |  |  |
| Serve as a resource for local/ national legislators on genetic services/issues |  |  |  |  |  |  |  |  |
| Conduct media interview/s |  |  |  |  |  |  |  |  |
| Other………………… |  |  |  |  |  |  |  |  |

\* REDCap rollover definition: *Choose ‘No time’ if this could be part of your role but you do not spend any time on this.*

\*\* REDCap rollover definition: *Choose ‘Not applicable’ if this is not part of your role.*

\*\*\* Research around ethical, legal and social implications.

\*\*\*\* Please note, we ask about your own continuing professional development in the next section.

**Current employment – how you feel about your job**

*These questions focus on how you feel about your job/s. If you have more than one job, please answer these questions as totals across all jobs.*

1. Do you feel your current workload is appropriate?

* Yes
* No
* Unsure
  1. [For all responses] Why?

1. This series of questions ask about burnout, related to you personally, your work and, if you have a clinical role, your clients/patients. *For each statement, select one option per row*

|  | Always or to a very high degree | Often or to a high degree | Some-times or some-what | Seldom or to a low degree | Never, almost never, or to a very low degree | Don’t know | Not applicable\* |
| --- | --- | --- | --- | --- | --- | --- | --- |
| * 1. Personal burnout |  |  |  |  |  |  |  |
| How often do you feel tired? |  |  |  |  |  |  |  |
| How often are you physically exhausted? |  |  |  |  |  |  |  |
| How often are you emotionally exhausted? |  |  |  |  |  |  |  |
| How often do you think: “I can’t take it anymore”? |  |  |  |  |  |  |  |
| How often do you feel worn out? |  |  |  |  |  |  |  |
| How often do you feel weak and susceptible to illness? |  |  |  |  |  |  |  |
| * 1. Work-related burnout |  |  |  |  |  |  |  |
| Is your work emotionally exhausting? |  |  |  |  |  |  |  |
| Do you feel burnt out because of your work? |  |  |  |  |  |  |  |
| Does your work frustrate you? |  |  |  |  |  |  |  |
| Do you feel worn out at the end of the working day? |  |  |  |  |  |  |  |
| Are you exhausted in the morning at the thought of another day at work? |  |  |  |  |  |  |  |
| Do you feel that every working hour is tiring for you? |  |  |  |  |  |  |  |
| Do you have enough energy for family and friends during leisure time? |  |  |  |  |  |  |  |
| * 1. Client (patient)-related burnout |  |  |  |  |  |  |  |
| Do you find it hard to work with patients? |  |  |  |  |  |  |  |
| Do you find it frustrating to work with patients? |  |  |  |  |  |  |  |
| Does it drain your energy to work with patients? |  |  |  |  |  |  |  |
| Do you feel that you give more than you get back when you work with patients? |  |  |  |  |  |  |  |
| Are you tired of working with patients? |  |  |  |  |  |  |  |
| Do you sometimes wonder how long you will be able to continue working with patients? |  |  |  |  |  |  |  |

\* REDCap rollover definition: *Choose ‘Not applicable’ if this statement does not apply to you at all, e.g., if you don’t work with patients.*

1. What do you enjoy most about your job?
2. What do you enjoy least about your job?
3. Overall, how satisfied are you with… *Select one option per row. If you have more than one job or employer, and your satisfaction varies, please specify below*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Very  satisfied | Satisfied | Neutral | Unsatisfied | Very  unsatisfied |
| * 1. your job |  |  |  |  |  |
| * 1. your employer |  |  |  |  |  |

1. If your satisfaction varies across different jobs or employers, please provide further details, e.g., any positive or negative factors that impact satisfaction.

**Future employment**

*Lastly, we'd like you to think about your plans for the future, to help us better understand workforce fluctuations.*

1. What are your career plans? *Select one option*

* I am currently training and plan to work in a fully-qualified role when I gain accreditation
* I am likely to stay in this role or similar until I retire
* I am likely to work in this role or similar for some time and then move into another area, e.g., move from clinical or research to policy or education
  1. Which area, and why?
* I plan to leave this profession completely within a couple of years

1. Why?

* Other

1. Which of the following factors might influence you to move to another city, state or overseas for a job? *Select all that apply*

* More senior position
* Higher salary
* Experience in a different specialty or sub-specialty
* Experience in another setting, city or state
* Experience overseas
* Working with a specific person or group
* Incorporating other duties, such as research or education
* No relevant jobs available in my current location
* Other
* None of the above; I would not move
  1. If not, why not?

1. At what age do you plan to retire? *Select one option*

|  |  |
| --- | --- |
| * Less than 50 yrs * 50‒54 yrs * 55‒59 yrs * 60‒64 yrs | * 65‒69 yrs * 70 yrs or more * Don’t know or unsure at this stage |

**Section 3 of 5: Genomics in your practice**

These questions will help map the current genomic practices of genetic counsellors and clinical geneticists in Australasia. Again, we appreciate it can be difficult to determine time spent on certain tasks, so an estimate or average is sufficient.

It doesn't matter if you do or don't know much about these areas, or don't incorporate them into your practice at the moment; your opinions, views and experiences are valuable to us.

We will also ask you to reflect on who you think should be involved in integrating genomics into routine healthcare.

These data will assist in budgeting for all activities relating to patient care and with workforce planning specifically in relation to genomics.

Remember words with a dotted underline and asterix\* have a definition on roll-over.

**[For respondents working in clinical and laboratory roles]**

1. Typically how long do you spend on the following activities related to whole exome sequence or whole genome sequence counselling and analysis per patient? *Select one option per row. If time spent on a specific task varies, please provide an average*

|  | No time\* | 0–5 min | 0–30 min | 0.5–1 hours | 1–2 hours | >2  hours | Don’t know | Not applicable\*\* |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Pre-test |  |  |  |  |  |  |  |  |
| 1. Identifying a patient or family who would benefit from whole exome or genome sequencing |  |  |  |  |  |  |  |  |
| 1. Ordering a whole exome or genome sequence test for a patient or family |  |  |  |  |  |  |  |  |
| 1. Pre-test counselling a patient or family about having whole exome or genome sequencing |  |  |  |  |  |  |  |  |
| 1. Administrative issues related to ordering a whole exome or genome sequence |  |  |  |  |  |  |  |  |
| 1. Coordinating a clinic appointment |  |  |  |  |  |  |  |  |
| 1. Attending an intake meeting to determine if a genomic sequencing test is the most appropriate test for a specific patient |  |  |  |  |  |  |  |  |
| 1. Creating a gene list for the lab to prioritise variant analysis |  |  |  |  |  |  |  |  |
| 1. Providing phenotypic information to the lab to prioritise variant analysis |  |  |  |  |  |  |  |  |
| Testing |  |  |  |  |  |  |  |  |
| 1. Laboratory and bioinformatics processes\*\*\* |  |  |  |  |  |  |  |  |
| 1. Searching the literature and databases for evidence of variant pathogenicity |  |  |  |  |  |  |  |  |
| 1. Searching the literature and databases to check you concur with the laboratory’s variant interpretations and classifications |  |  |  |  |  |  |  |  |
| 1. Attending a multidisciplinary team or molecular tumour board meeting\*\*\*\* to discuss variant prioritisation, interpretation and classification |  |  |  |  |  |  |  |  |
| Post-test |  |  |  |  |  |  |  |  |
| 1. Providing genetic counselling for WES/WGS results of a pregnancy |  |  |  |  |  |  |  |  |
| 1. Providing genetic counselling for WES/WGS results for a child patient |  |  |  |  |  |  |  |  |
| 1. Providing genetic counselling for WES/WGS results for an adult patient |  |  |  |  |  |  |  |  |
| 1. Organising cascade testing of family members if results include variant/s of unknown significance |  |  |  |  |  |  |  |  |
| 1. Ongoing management of the patient/further pregnancies |  |  |  |  |  |  |  |  |
| 1. Other |  |  |  |  |  |  |  |  |

\* REDCap rollover definition: *Choose ‘No time’ if this could be part of your role but you do not spend any time on this.*

\*\* REDCap rollover definition: *Choose ‘Not applicable’ if this is not part of your role.*

\*\*\* REDCap rollover definition = *This step is usually performed by laboratory and/or bioinformatics staff but is included here for completeness.*

\*\*\*\* REDCap rollover definition = *Some clinical genetics services run multidisciplinary team meetings for exome and genome clinic patients. Similarly, cancer genetic services run molecular tumour board meetings. Attendees include clinical geneticists, genetic counsellors, medical scientists, bioinformaticians and other relevant health professionals, such as oncologists and/or referring specialists.*

1. Typically how long do you spend on the following activities related to non-invasive prenatal testing (NIPT) counselling and analysis per patient? *Select one option per row. If time spent on a specific task varies, please provide an average*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | No time\* | 0–5 min | 0–30 min | 0.5–1 hours | 1–2 hours | >2  hours | Don’t know | Not applicable\*\* |
| Counselling a patient or family about having NIPT |  |  |  |  |  |  |  |  |
| Attending to administrative issues related to ordering NIPT |  |  |  |  |  |  |  |  |
| Providing genetic counselling following a high risk NIPT result |  |  |  |  |  |  |  |  |
| Other |  |  |  |  |  |  |  |  |

\* REDCap rollover definition: *Choose ‘No time’ if this could be part of your role but you do not spend any time on this.*

\*\* REDCap rollover definition: *Choose ‘Not applicable’ if this is not part of your role.*

1. Typically how long do you spend on the following activities related to chromosomal microarray (CMA) counselling and analysis per patient? *Select one option per row. If time spent on a specific task varies, please provide an average*

|  | No time\* | 0–5 min | 0–30 min | 0.5–1 hours | 1–2 hours | >2  hours | Don’t know | Not applicable\*\* |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Counselling a patient or family about having a CMA |  |  |  |  |  |  |  |  |
| Attending to administrative issues related to ordering a CMA |  |  |  |  |  |  |  |  |
| Searching the literature and databases regarding CMA results |  |  |  |  |  |  |  |  |
| Providing genetic counselling for the CMA result of an affected pregnancy |  |  |  |  |  |  |  |  |
| Providing genetic counselling for the CMA result of an affected child |  |  |  |  |  |  |  |  |
| Providing genetic counselling for the CMA result ~~from cascade testing~~ of an adult |  |  |  |  |  |  |  |  |
| Other |  |  |  |  |  |  |  |  |

\* REDCap rollover definition: *Choose ‘No time’ if this could be part of your role but you do not spend any time on this.*

\*\* REDCap rollover definition: *Choose ‘Not applicable’ if this is not part of your role.*

**[For all respondents]**

1. In your opinion, who do you think should be involved in the different steps involved in ordering, generating, analysing and reporting a whole exome or whole genome sequence? *Please select as many options per row as you think appropriate*

|  | Non-genetic health professional | Genetic counsellor | Clinical geneticist | Genetic path-ologist | Medical scientist | Bio-informa-tition | Other | Don’t know/ unsure |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Pre-test |  |  |  |  |  |  |  |  |
| 1. Identifying a patient or family who would benefit from whole exome or genome sequencing |  |  |  |  |  |  | Specify…… |  |
| 1. Ordering a whole exome or genome sequence test for a patient or family |  |  |  |  |  |  | Specify…… |  |
| 1. Pre-test counselling a patient or family about having whole exome or genome sequencing |  |  |  |  |  |  | Specify…… |  |
| 1. Administrative issues related to ordering a whole exome or genome sequence |  |  |  |  |  |  | Specify…… |  |
| 1. Coordinating a clinic appointment |  |  |  |  |  |  | Specify…… |  |
| 1. Attending an intake meeting to determine if a genomic sequencing test is the most appropriate test for a specific patient |  |  |  |  |  |  | Specify…… |  |
| 1. Creating a gene list for the lab to prioritise variant analysis |  |  |  |  |  |  | Specify…… |  |
| 1. Providing phenotypic information to the lab to prioritise variant analysis |  |  |  |  |  |  | Specify…… |  |
| Testing |  |  |  |  |  |  |  |  |
| 1. Laboratory and bioinformatics processes\*\* |  |  |  |  |  |  | Specify…… |  |
| 1. Searching the literature and databases for evidence of variant pathogenicity |  |  |  |  |  |  | Specify…… |  |
| 1. Searching the literature and databases to check you concur with the laboratory’s variant interpretations and classifications |  |  |  |  |  |  | Specify…… |  |
| 1. Attending a multidisciplinary team meeting\*\*\* to discuss variant prioritisation, interpretation and classification |  |  |  |  |  |  | Specify…… |  |
| Post-test |  |  |  |  |  |  |  |  |
| 1. Providing genetic counselling for WES/WGS results of a pregnancy |  |  |  |  |  |  | Specify…… |  |
| 1. Providing genetic counselling for WES/WGS results for a child patient |  |  |  |  |  |  | Specify…… |  |
| 1. Providing genetic counselling for WES/WGS results for an adult patient |  |  |  |  |  |  | Specify…… |  |
| 1. Organising cascade testing of family members if results include variant/s of unknown significance |  |  |  |  |  |  | Specify…… |  |
| 1. Ongoing management of the patient/ further pregnancies |  |  |  |  |  |  | Specify…… |  |
| 1. Other |  |  |  |  |  |  | Specify…… |  |

1. Have any patients ever asked about direct to consumer/personal genomic tests, such as SmartDNA or 23&Me, or asked you to help interpret direct to consumer genomic test results? *This may have been in your current or previous role/s*

* Yes
  1. If yes, please provide details, such as patient numbers or frequency, test types,, and how confident or comfortable you felt when answering patients’ questions
* No
* Unsure

**Section 4 of 5: Professional development**

*Hang in there – only two sections left!*

The following questions relate to previous and future professional development. Some questions and responses may seem less relevant to you, however these data will assist with planning workforce education and training, more generally and specifically in genomics.

Remember words with a dotted underline and asterix\* have a definition on roll-over.

1. Over the past year, how often did you attend/participate in the following activities for your own professional development? *Select one option per row.*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Never\* | Daily | Weekly | Monthly | Bi-monthly/ Quarterly | Once or twice | Don’t know | Not applicable\*\* |
| Certification activities |  |  |  |  |  |  |  |  |
| Continuing professional development or maintenance of professional standards (MOPS) |  |  |  |  |  |  |  |  |
| Internal seminar, conference or similar |  |  |  |  |  |  |  |  |
| External seminar, conference or similar |  |  |  |  |  |  |  |  |
| Online webinar, course, MOOC or similar |  |  |  |  |  |  |  |  |
| Reading texts related to my profession (books, journals, articles, *etc.*) |  |  |  |  |  |  |  |  |
| Study days at place of employment |  |  |  |  |  |  |  |  |
| Other development activity………………… |  |  |  |  |  |  |  |  |

\* REDCap rollover definition: *Choose ‘Never’ if you could have attended or participated but did not.*

\*\* REDCap rollover definition: *Choose ‘Not applicable’ if it was not possible to attend or participate.*

1. Have you attended any professional development education or training around genomics in the past 2 years, such as lectures, seminars or workshops, either in person or online?

* No
* Yes
  1. If yes, was this:
* In-house (internal) program/s
  + How many internal session/s have you attended?
    - 1
    - 2-5
    - >5
  + What was the average duration of the internal session/s?
    - <1 hr
    - 1-2 hrs
    - Half a day
    - 1 day
    - More than 1 day
    - Unsure
  + Please provide any additional details you can recall about these INTERNAL sessions, e.g., weekly multidisciplinary team meetings or seminars, who ran the program, around what topics, your opinion of the content. Don't worry if you can't recall specifics, even general information is helpful.……………………………………………………………
* External program/s
  + How many external session/s have you attended?
    - 1
    - 2-5
    - >5
  + What was the average duration of the external session/s?
    - <1 hr
    - 1-2 hrs
    - Half a day
    - 1 day
    - More than 1 day
    - Unsure
  + Please provide any additional details you can recall about these EXTERNAL sessions, e.g., conference or workshop, who ran the training, around what topics, your opinion of the content. Don't worry if you can't recall specifics, even general information is helpful.   
    ……………………………………………………………
* Online training (webinar, MOOC,\* etc.)
  + How many webinars have you watched?
    - 1
    - 2-5
    - >5
  + How many MOOCs have you completed?
    - 1
    - 2-5
    - >5
  + Please provide any additional details you can recall about any online learning you have completed, e.g., who ran the program, around what topics, duration, your opinion of the content. Don't worry if you can't recall specifics, even general information is helpful.  
    ……………………………………………………………
* Other……………………………………………………………

\* REDCap rollover definition: *Massive, open, online course, such as Coursera or Future Learn.*

1. Which professional development method/s do you find are most effective for you? *Select all that apply*

* Conference
* Workshop
* Preparing and giving a presentation/poster/paper, *etc.*
* Group discussion/reflection
* One‐on‐one discussion/reflection
* Self‐directed
* Lecture-style
* Hands-on learning
* Online
* Other

1. Have any of the following statements been reasons why you may not have attended education programs in the past (not necessarily specific to genomics)? *Select all that apply*

* Did not consider subject relevant to my work
* I was expected to attend the course in my own time
* Time constraints during work hours
* Too many other things to do at work
* Course was not held at a convenient time (please explain…………..)
* Topic is too hard to understand
* Too expensive to attend
* No funding available
* The location was not convenient (specify………)
* I have to attend too many other study days/activities
* Not a requirement for registration/certification
* Not a requirement for my work
* Did not have managerial support to attend
* Personally chose not to attend
* Other……………

1. How is your professional development funded? *Please provide the percentage that each contributes to your overall professional development funds and check that the total of selected items adds to roughly 100%.*

|  |  |
| --- | --- |
| By employer |  |
| From a grant |  |
| Self-funded |  |
| Other…………………. |  |
| I don’t have access to professional development |  |

**Section 5 of 5: About your professional body** [adapt for local context]

*This is the last section - you're nearly finished!*

Lastly, we'd like to give you the opportunity to provide feedback about your professional body.

Answer these questions in relation to the special interest group (SIG) relevant to your profession - either the Australasian Society for Genetic Counsellors (ASGC) or Australasian Association of Clinical Geneticists (AACG) - rather than the Human Genetics Society of Australasia (HGSA) as an umbrella organisation.

If you're a member of more than one SIG, please answer in relation to the SIG that reflects your primary job.

*Again, please note, all responses will be reported in a collective way so that specific individuals cannot be identified.*

1. Which of the following is provided by your SIG? *Select all that apply* [adapt for local context]

* Draft standards and policy documents related to your profession
* Manage certification and training standards
* Provide professional accreditation
* Organise events for members
* Promote external events relevant to members
* Offer grants/prizes
* Circulate a newsletter
* Represent members with relevant organisations and committees
* Provide information for prospective and current practitioners
* Provide information for patients
* Advertise job vacancies
* Don't know/Unsure
* Other

1. What other activities should your SIG consider performing, that it currently does NOT do?
2. How relevant is your SIG…

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Not at all relevant | Somewhat relevant | Relevant | Very relevant | Unsure |
| * 1. to you personally? |  |  |  |  |  |
| * 1. to your profession? |  |  |  |  |  |

1. With respect to financial aspects of your SIG…

|  |  |  |  |
| --- | --- | --- | --- |
|  | Yes | No | Unsure |
| * 1. are you happy with the current SIG membership fee? |  |  |  |
| * 1. would you be prepared to pay a higher fee if the SIG offered additional activities such as online education, coordinating disease-specific listservs and/or greater advocacy activities? |  |  |  |
| * 1. should your SIG maintain a financial reserve? |  |  |  |

1. Overall, how do you rate the performance of your SIG as a professional association?

* Excellent
* Very good
* Good
* Fair
* Poor

**Thank you!**

***You’re finished the Professional Status Survey, thank you! Just a few more optional questions then don’t forget to click ‘Submit’ to complete the survey and have your say about your profession.***

1. Do you have any other comments about your profession, training or SIG?
2. If you wish to receive a copy of the study results, please provide your name and email address below. *Please note, if you provide your name and contact details, we will not use this information for research purposes. It will only be used to send you a copy of the results.*
3. Finally, we are interested in speaking with some respondents further to speak about the above topics in more depth. If you are interested in being contacted for a phone interview at a mutually convenient time, please provide the best contact details for yourself (email or telephone) and one of our researchers will follow up.

***Thank you for taking the time to complete this survey.   
Your data are invaluable in shaping the future of the profession.***

***Please distribute the survey link to other genetic counsellors or clinical geneticists in your network:*** [**LINK**](https://redcap.mcri.edu.au/surveys/?s=9LNH8M7MFD)

***Don’t forget to click ‘Submit’ or your responses will not be included in our research.***

[SUBMIT](http://www.genioz.net.au/page/start-survey/)

*Should you require any further information, or have any concerns, please do not hesitate to contact*[local contact]*.*