

## Autism Spectrum Disorder Newsletter

December 2009

This newsletter brings together information about the progress being made to improve autism services for people in New Zealand from some of the key groups who have been involved. It updates the information that was provided in the October 2009 newsletter.

This newsletter focuses on activities that are coordinated nationally. We have no doubt that there are many local or regional activities that are helping to implement the guideline and we would love to hear about them. If you have been involved in a project or activity that helps to implement the NZ ASD Guideline and you would like to share that experience, then please let us know. You can contact the New Zealand Guidelines Group (NZGG) through [asd@nzgg.org.nz](mailto:asd@nzgg.org.nz).

You can use the same email address to ask questions in relation to any of the projects outlined below.

The staff from the Ministries of Health and Education, and from the New Zealand Guidelines Group, wish you all a happy Christmas. We hope that the sun **does** shine during your holiday. We look forward to working with and for you again next year.

### Frequently Asked Questions

By the end of January 2010 the Ministry will update its frequently asked questions section on its ASD website. If you want to look at what is currently there, it is at the following page: <http://www.moh.govt.nz/moh.nsf/indexmh/disability-keyprojects-asd-guideline-faq>.

### Implementation Priorities

The Ministries of Health and Education agreed a set of priorities for the next three years of NZ ASD Guideline implementation. They made this decision after discussions with the ASD Implementation Advisory Group, the ASD Inter-sectoral Advisory Group, and a group of senior officials from a range of government departments.

The priority areas are (not in any particular order):

1. Assessment and diagnosis
2. Support to strengthen families
3. Interventions
4. Respite
5. Coordination.

The next parts of this newsletter provide updates on the projects that are underway in each of these areas.



**Photo: Members of the Implementation Advisory Group**

### **Assessment and Diagnosis**

There are five projects currently underway in this topic area. They are:

**1. Development of a series of resources (including a handbook) for recognition and referral of suspected ASD, to be used by education and health and disability practitioners.**

- *Leading organisation:* NZGG, supported by an expert reference group.
- *Goals:*
  - a. To provide education, health and disability practitioners with a cut-down version of the NZ ASD Guideline, targeted at them, and focused on recognition and referral of suspected ASD. This should assist with improved diagnosis and improved timeliness of diagnosis
  - b. To provide options for the dissemination of the resources
  - c. To review the validity and availability of diagnostic tools that can improve the quality and comprehensiveness of diagnosis.
- *Links to NZ ASD Guideline Recommendations:* All recommendations from Part One of the NZ ASD Guideline. Also 2.3.02 – 2.3.15, and the sections of Part 6 that relate to specialists, and relevant recommendations from Parts 7 and 8 relating to the involvement of Māori and Pacific carers in the assessment process.

- *Status:* Content and design concepts for the resources are being finalised, as feedback on the draft document has been received from Te Whanau Kotahi. The paper describing options for its promulgation has been completed. The paper that reviewed the validity and availability of diagnostic tools has been drafted.
- *When can you expect to see something from the work?* The Ministries of Health and Education are interested in making the resources readily available online, potentially with summaries provided in hardcopy. They are also interested in an ongoing and wide communication exercise. NZGG is in discussions with a programme in the Bay of Plenty to provide a hands-on test of the resources as well. All of these activities will occur over the next year. The launch of the resources on the website will occur in early 2010.

## **2. Development of training materials for specialists in the assessment, treatment and management of ASD.**

- *Leading organisation:* Werry Centre, supported by an external reference group.
- *Goal:* to develop a training resource for specialists (paediatricians, psychiatrists, clinical psychologists & educational psychologists) in the assessment, treatment and clinical management of ASD for young people aged between 0 and 19.
- *Links to NZ ASD Guideline Recommendations:* All recommendations from Parts One and Four of the NZ ASD Guideline, the sections of Part 6 that relate to specialists, and relevant recommendations from Parts 7 and 8 relating to the involvement of Māori and Pacific carers in the assessment process.
- *Status:* The Specialist training package has been completed and submitted to the Ministries of Health and Education. NZGG and the Ministry of Health have contracted the Bay of Plenty Child Development Service, Te Whanau Kotahi, to review the package within a multidisciplinary environment and provide feedback prior to implementation.
- *When can you expect to see something from the work?* The final draft of the Specialist training package is complete. The Werry Centre is delivering an implementation plan to the Ministry of Health in January 2010.

## **3. Review/ Revision of core Needs Assessment and Service Coordination (NASC) Standards, Protocols, Guidelines and Practice Resources**

- *Leading organisation:* Needs Assessment Service Coordination Association Incorporated (NASCA).
- *Goal:* To enhance NASC practice through reviewing and updating its existing standards and guidelines and good practice resources.
- *Links to NZ ASD Guideline Recommendations:* Broadly takes into consideration all parts of the NZ ASD Guideline
- *Status:* NASCA has completed the review of the key documents and has developed an Implementation Report.
- *When can you expect to see something from the work:* The implementation report is currently being considered by the Ministry of Health and a decision will be made next year.

#### 4. ASD Specific Guideline for NASCs

- *Leading organisation:* NASCA.
- *Goal:* To develop a new ASD-specific Guideline for NASCs.
- *Links to NZ ASD Guideline Recommendations:* Part 1 (overview recommendations 1 &2), Part 2 (overview recommendations 1,2,3,4,5,9,11,12), Part 3 (overview recommendations 1,2,6 &11), Part 4 (overview recommendations 1,3,&5), Part 5 (overview recommendations 1,2,3,4,5,7,9,10,11) and generally Parts 7 and 8.
- *Status:* An Interim NASC ASD Guideline has been developed and is in the final stages of editing. The Interim NASC ASD Guideline will be updated to reflect the outcomes of work currently underway on health and disability support sector responsibilities. Once the interim version is updated it will be published.
- *When can you expect to see something from the work:* The interim version of the NASC ASD Guideline will be circulated to NASC staff before Christmas. The final version will be published and available on request to the Ministry of Health.

#### 5. Development of NASC Resources

- *Leading organisation:* NASCA.
- *Goal:* To develop new resources and tools to support the revised NASC Standards/ Guidelines and ASD-specific Guideline for NASCs.
- *Links to NZ ASD Guideline Recommendations:* Part 1 (overview recommendations 1 & 2), Part 2 (overview recommendations 1,2,3,4,5,9,11,12), Part 3 (overview recommendations 1,2,6 &11), Part 4 (overview recommendations 1,3,&5), Part 5 (overview recommendations 1,2,3,4,5, 7,9,10,11) and generally Parts 7 and 8.
- *Status:* During November NASC staff attended workshops where they were introduced to the key concepts and practice implications outlined in the Interim NASC ASD Guideline. During the workshops further resources were identified that will be developed to support NASC staff implement the Interim NASC ASD Guideline.

### Support to Strengthen Families

There are five projects currently underway in this topic area. They are:

#### 1. Improving information and advisory services

- *Leading organisation:* Altogether Autism.
- *Goal:* To ensure that that NZ ASD Guideline and its messages and recommendations are widely distributed amongst the ASD community.
- *Links to NZ ASD Guideline Recommendations:* 2.2.1, 2.2.3, and the recommendations from Parts 7 and 8 relating to the language-appropriate information provision.
- *Status:* Altogether Autism has been funded to support communication of the NZ ASD Guideline. Activities undertaken include:
  - a. Website development, which includes a link to the ASD Guideline from the home page: [www.altogetherautism.org.nz](http://www.altogetherautism.org.nz)
  - b. Targeted media follow-up: identified magazines, DVDS, CDROMS and other forms of media channels

- c. Promotional ASD Guideline packs for stakeholders – A system was set up for distributing the promotional packs. Promotional packs contain:

The FULL New Zealand ASD Guideline Book (1 copy)  
The SUMMARY New Zealand ASD Guideline (1 copy)  
The MAORI TRANSLATION of the SUMMARY New Zealand ASD Guideline (1 copy)  
Brochures on New Zealand ASD Guideline (10 copies)  
Brochures on Altogether Autism (10 copies)

The packs are sent out as requests come in. Instructions for ordering are available at <http://altogetherautism.org.nz/page/66-NZ-ASD-Guidelines+Download-or-Order-the-Guideline#Full>

The packs are also available from Altogether Autism by email [info@altogetherautism.org.nz](mailto:info@altogetherautism.org.nz) or Phone 0800 ASD INFO (0800 273 463) and a pack will be sent out to you.

- d. Identifying events for communicating the NZ ASD Guideline – Altogether Autism communicates the NZ ASD Guideline via its Regional Network Meetings and service provider visits.
- e. Distributing conference materials - Professionals were informed about the existence of the NZ ASD Guideline conference materials either by direct contact or by a link between Altogether Autism and Ministry of Health websites (Ministry of Education links to MOH website). A system for distributing and coordination of NZ ASD Guideline conference materials was also established.
- f. Reference Library – this is fully operational, and accessible to the public by telephoning Altogether Autism on 0800 ASD INFO (0800 273 463).
- g. One-off training for professionals - 38 participants recently completed the Autism Diagnostic Interview-Revised (ADI-R) Training Course. ADI-R is a standardised, semi-structured diagnostic interview (Tool) for use with the parents or caregivers of people with Autism or Aspergers’s Disorder. Training Workshops were held in Hamilton and Christchurch during the month of September. The Trainers were Dr Kylie Gray and Deborah Sweeney, from the Centre for Developmental Psychiatry and Psychology, Monash Medical Centre, Monash University Melbourne, Australia.
- h. Evaluating the reach and effectiveness of the NZ ASD Guideline distribution – over 13,000 full guidelines and summaries distributed. In May of this year, Altogether Autism conducted a survey on the effectiveness of this distribution. The feedback from the survey will be used to assist in future communications and planning. In addition, it will inform the Ministries of Health and Education about areas to target further distribution of the NZ ASD Guideline.
- i. Altogether Autism is developing Pod casts for their website. These casts will also include people’s experiences of living with autism. In addition, audio and video files for download of lectures and talks undertaken for Altogether Autism are being compiled. Once this work is completed these resources can be accessed from the Altogether Autism website: [www.altogetherautism.org.nz](http://www.altogetherautism.org.nz)

## 2. Parent Education

- *Leading organisations:* Ministry of Health, Ministry of Education.
- *Goal:* To provide quality-driven parent education programmes that will improve parents' knowledge of the impact of ASD. Focused on parents of young children (i.e. before the child starts school), the programmes are expected to enhance parents' ability and confidence to support their children to communicate, manage themselves and interact socially.
- *Links to NZ ASD Guideline Recommendations:* 2.2.1, 2.2.2 and 2.2.3, plus detailed information on pages 71 and 72.
- *Status:* The Ministries have contracted two organisations to provide ASD-specific parent education. Autism NZ is providing EarlyBird to families in the North Island, with the exception of Northland. IDEA Specialist Services are providing ASD Plus to families in Northland and throughout the South Island.
- *When can you expect to see something from the work?* Information about both programmes is available from the providers. <http://www.autismnz.org.nz/Autism-New-Zealand/Training-Programmes.php> and <http://www.ihc.org.nz/Services/ASDPlusEducationforfamilies/tabid/1718/Default.aspx>.

## 3. 'tips for autism'

- *Leading organisation:* Ministry of Education and Ministry of Health.
- *Goal:* To extend the reach of the 'tips for autism' programme through funding additional programmes and additional facilitators.
- *Links to NZ ASD Guideline Recommendations:* Overview 2.1, 6.6, 6.8; Part 4, 4.3.3; Part 6: 6.17.
- *Status:* 'tips for autism' provides teams of parents, carers and school teachers with practical knowledge and skills to support children with ASD who are between the ages of 5 and 12. Each team completes a comprehensive long term plan and short term goals which they can action the day after the course ends. 'tips for autism' was written for the New Zealand context and is regularly updated to reflect new evidence and changing policies. Currently families and schools are registering their interest in having a course in 2010 – at least 23 courses will take place at locations throughout New Zealand.
- *When can you expect to see something from the work?* There are 23 'tips for autism' courses planned between February and September 2010. For further information, please go to [www.tipsforautism.org.nz](http://www.tipsforautism.org.nz)

## 4. SPELL evaluation

- *Leading organisation/s:* Ministry of Health.
- *Goal:* To evaluate the success of the SPELL programme. This will inform the Ministry of Health as it determines whether or not to continue funding the programme.
- *Links to NZ ASD Guideline Recommendations:* 2.2.1.
- *Status:* The evaluation has been completed and the Senior Officials Group has met to consider the recommendations. Autism NZ continues to provide this education programme while relevant consultation occurs.

- *When can you expect to see something from the work?* The Senior Officials are committed to providing effective parent education for families and are considering the recommendations in the context of all the parent education now funded by the Ministries of Health and Education. A decision on whether SPELL will be part of this framework will be made by April 2010 at the latest.

## 5. Bright Sparks: Programme Enhancements

- *Leading organisation/s:* Autism New Zealand (Auckland Branch), Ministry of Health.
- *Goal:* To build on the positive evaluation of Bright Sparks, an Auckland community-based recreational based programme for children with ASD, by further developing and documenting the programme.
- *Links to NZ ASD Guideline Recommendations:* Part 5 of the Guideline, 5.2.1-5.2.8.
- *Status:* The Bright Sparks programme is currently being delivered in Auckland by Autism House ([www.autismhouse.org.nz](http://www.autismhouse.org.nz)). Following the evaluation of Bright Sparks, the Ministry has contributed one-off funding to respond to recommendations contained within the report. Autism NZ is documenting the model, so as to make it possible that it can be replicated in other parts of the country.
- *When can you expect to see something from the work?* Autism NZ has submitted a draft model description and is now finalising it following feedback.

## Interventions

There are two projects currently underway in this topic area. They are:

### 1. ASD-specific communication and behaviour support services

- *Leading organisation:* Ministry of Health.
- *Goal:* To provide ASD-specific communication and behaviour support services to the ASD community in Auckland.
- *Links to NZ ASD Guideline Recommendations:* 4.3.2, 4.3.4, 4.3.5.
- *Status:* The Ministry of Health has contracted IDEA Services for this contract.
- *When can you expect to see something from the work?* This service is now receiving referrals and delivering services in the Auckland region to children and young people up to 21 years of age.

### 2. Assessment of the feasibility of having ASD-specific behaviour support services

- *Leading organisations:* Bennett & Bijoux Ltd, Ministry of Health.
- *Goal:* To assess the feasibility, in the New Zealand context, of having behaviour support services that are developed specifically for people with lived experience of ASD.
- *Links to NZ ASD Guideline Recommendations:* 4.3.7.

- *Status:* Bennett and Bijoux have completed a reported that presented four service model options. They included:
  - a. Continue to deliver some BSS for some people with ASD through specific service providers
  - b. Ease funding BSS for people with ASD who do not have ID
  - c. Add an ASD-specific component to generic BSS services
  - d. Develop an ASD-specific BSS service model (preferred option)

These options were presented more fully to the Implementation Advisory Group (IAG) in October 2009 and the Ministries of Health and Education listened to feedback. There was general support from the IAG for Option (d), however the IAG wondered about the feasibility of this model due to issues such as workforce capacity in New Zealand at present.

Feedback from the IAG was presented to the ASD Senior Officials Group, the members of which would like to take this opportunity to thank those people who participated in interviews held to inform the feasibility study.

- *When can you expect to see something from the work?* The Senior Officials are considering all options and planning continues at present to implement this funding. Implementation of this funding will be commenced, however it will also align to the overall Behaviour Support Review that the MoH is planning for the work programme in 2010.

## Respite

There are two projects currently underway in this topic area. They are:

### 1. Extending disability respite services

- *Leading organisation:* Ministry of Health.
- *Goal:* To increase access to respite services.
- *Links to NZ ASD Guideline Recommendations:* 5.2.6.
- *Status:* In progress.
- *When can you expect to see something from the work?* The Ministry has now signed contracts for the five following services:
  - a. Waikato service for people 17 years of age and over with an intellectual disability and/or ASD - Spectrum Care Trust
  - b. Bay of Plenty/Lakes (to be located in Tauranga) service for people 17 years of age and over with an intellectual disability and/or ASD - Spectrum Care Trust
  - c. Bay of Plenty/Lakes (to be located in Tauranga) service for people under 17 years of age with an intellectual disability and/or ASD - The Open Home Foundation
  - d. Hawke's Bay service for people under 17 years of age with an intellectual disability and/or ASD - The Open Home Foundation
  - e. Wellington service for people under 17 years of age with an intellectual disability and/or ASD - The Open Home Foundation.

These services are currently in set-up phase. Purchasing of respite services is not complete and contracts for the provision of other services should be signed in other areas in the future. Respite, and the development of models that meet the needs of families, continues to be an important area of priority.

## 2. Describing ASD-specific respite services

- *Leading organisations:* NZGG, Acqumen Ltd supported by the Implementation Advisory Group.
- *Goal:* To describe ASD-specific respite services.
- *Links to NZ ASD Guideline Recommendations:* 5.2.1 – 5.2.8.
- *Status:* The paper has been completed and submitted to the Ministry of Health, along with a draft service specification that could be used in ongoing service developments for respite. The Ministry is now considering how to progress this, within the context of the overall increase in disability respite services.
- *When can you expect to see something from the work?* Respite for ASD will be included in the Ministry of Health plans to initiate a system wide review of respite beginning in the middle of 2010. This remains subject to approval by the Senior Management Team.

## Coordination

There are three projects currently underway in this topic area. They are:

### 1. Business case for DHB Developmental Coordination

- *Leading organisations:* New Zealand Guidelines Group, Ministry of Health.
- *Goal:* To develop a business case for allocating funding to DHBs that enable them to provide improved coordination across ASD-related services.
- *Links to NZ ASD Guideline Recommendations:* 1.2.9, 2.4.1- 2.4.4, 7.3.
- *Status:* The case for DHB ASD developmental coordination has been submitted to the Ministry, who have accepted that the service should be delivered on a regional basis.
- *When can you expect to see something from the work?* DHBs will be invited in early 2010 to express interest in providing this as a regional service with the support of their communities and relevant NGOs.

### 2. NASC ASD Coordination

- *Leading organisation/s:* NASCA.
- *Goals:*
  - a. To develop and establish a NASC ASD coordination function to support existing staff identify, plan and review packages of service/ supports required to meet the prioritised needs and goals
  - b. To improve knowledge skills, attitudes of NASC staff
  - c. To support NASC managers and team leaders
  - d. To improve linkages with and across existing disability support services.

- *Links to Guideline Recommendations:* Part 1 (1.1.01), Part 2 (2.3.14,) Part 3 (3.2.5.01, 3.1.08, 3.1.06, 3.4.05), Part 4 (4.1.01, 4.1.05), Part 5 (5.1.08, 5.1.14, 5.2.01, 5.2.06,) and generally Parts 7 and 8.
- *Status:* A NASC Coordination Function Report has been developed and a plan to implement the report's recommendations is being finalised. Further work is planned to ensure the Coordination Function integrates with the overall framework for ASD Implementation
- *When can you expect to see something from the work?* Implementation of the NASC ASD Coordination Function will commence in 2010.

### 3. Review of interagency protocols (Equipment and Therapy) between Ministry of Education and Ministry of Health for school aged children

- *Leading organisation/s:* Ministries of Health and Education, Acqumen Ltd.
- *Goals:* To review the current Equipment and Therapy (physiotherapy and occupational therapy) protocols and make recommendations for revising the protocols within existing policy and resourcing. This includes:
  - a. achieving the best outcome for children and young people and their families/whanau
  - b. clarifying funding roles and service provision responsibilities
  - c. maximising cooperation between agencies
  - d. development of complementary roles and responsibilities
  - e. assisting families/whanau and fundholders in making appropriate referrals.
- *Links to NZ ASD Guideline Recommendations:* 2.4.1- 2.4.4, 3.2.4.5, 4.1.1-4.1.5.
- *Status:* Following consultation with key stakeholders and families of students in four locations nationally and feedback from a questionnaire distributed to individuals and key organisations, the protocols are being updated into:
  - a. A Memorandum of Understanding
  - b. Therapy and Assistive technology/equipment Operational Guideline: Roles and Responsibilities.
- *When can you expect to see something from the work?* Once the revision is complete further work is required to scope how the above documents will be implemented.

#### Associated activity led by the Ministry of Education

In addition to the work that is led by the Ministry in the fields of parent education and teacher support (noted above), the Ministry is also leading the following projects in support of the NZ ASD Guideline:

##### 1. Living Guideline

- *Leading organisation:* NZGG, Ministry of Education, supported by a Living Guideline Group.
- *Goal:* To ensure that the NZ ASD Guideline remains up-to-date and relevant as evidence changes. This process will not add new topics to the NZ ASD Guideline, but keep the current topics up to date. It will focus on areas where new evidence has emerged which warrants changing a NZ ASD Guideline recommendation. "New evidence" is research published since April 2004.

- *Links to NZ ASD Guideline Recommendations:* Not directly linked to any as this project is about ensuring that the recommendations remain derived from current evidence.
- *Status:* A Living Guideline Group (LGG), chaired by Professor Ian Evans (with Matt Frost as the deputy-Chair), held its second meeting in November. At the 2-day meeting, the LGG considered evidence on Applied Behaviour Analysis (ABA) from two literature reviews on ABA commissioned by the Ministry of Education, an update of recently published ABA reviews, and a report by an independent technical expert on all the evidence. The technical expert, Professor Margot Prior (University of Melbourne) and representatives of the two review teams also presented at the meeting. The LGG considered what impact the evidence has on current Recommendations in the NZ ASD Guideline related to ABA. Revisions of Recommendations, revision of supporting text and new Recommendations were considered.
- *When can you expect to see something from the work?* The LGG is preparing a Supplementary Paper on ABA based on decisions made at the meeting. A draft is planned by the end of the year. The work plan beyond ABA will be determined in the new year based on further identification and prioritisation of update topics by the LGG, and literature searches conducted by NZGG.
- *Important points to note about what is happening:*
  - a. The living guideline process is a technical one. It is about considering whether evidence has changed enough to warrant a change in the guideline's recommendations. Because it is a technical process, the Living Guideline Group is made up of people who have a good grasp of the evidence. The group is guided in its work by staff from the New Zealand Guidelines Group. These staff are experts in ensuring that technical experts are able to consider the evidence in a fair and transparent manner
  - b. If there is insufficient new evidence to warrant changing a current recommendation in the guideline, then it won't be changed
  - c. The Living Guideline Group can suggest new recommendations if the evidence supports it
  - d. Any new recommendations will not automatically attract funding to implement them. This is the case for all of the recommendations in the guideline, and is why a prioritisation process has already occurred to fund the current implementation projects
  - e. New Zealand Guidelines Group published an article on the living guideline process in its electronic bulletin. You can access it [http://www.nzgg.org.nz/index.cfm?fuseaction=fuseaction\\_17&windowmode\\_2009\\_change=open#](http://www.nzgg.org.nz/index.cfm?fuseaction=fuseaction_17&windowmode_2009_change=open#) (click on archived issues, 2009).

## 2. Education ASD Action Plan

- *Leading organisation:* Ministry of Education.
- *Goal:* To develop a coordinated national plan for professional learning and development, including establishing a network of 'Go To' people who will take a leading role in providing evidence-based support and current information.
- *Links to NZ ASD Guideline Recommendations:* 6.6, 6.7, 6.9-6.14, 6.16-6.25, 6.27.
- *Status:* The plan is in use and will be updated every six months.
- *When can you expect to see something from the work?* Work on developing resources is underway, along with the regional role descriptions. Many elements of the plan are being

implemented and progress is reported elsewhere in this newsletter, e.g. 'tips for autism' and ASD-specific parent education.

### 3. Early Intervention ASD Project

- *Leading organisation:* Ministry of Education.
- *Goals:* Exploring the use of the Social Communication, Emotional Regulation and Transactional Support (SCERTS) framework in early intervention in NZ. Specifically, during Phase Two (2009-2010), the goals are:
  - a. Improved outcomes for more children, families and whānau
  - b. SCERTS effectively adapted and operating in the NZ context
  - c. More staff with a wider range of skills in providing effective interventions for children with ASD, their families, whānau and education teams
  - d. Further refining an effective model for providing professional learning and development and sustaining effective practices
- *Links to NZ ASD Guideline Recommendations:* 3.1.1 – 3.1.12, 3.2.1.10, 3.2.2.1 – 3.2.2.7, 3.2.3.1 – 3.2.3.3, 3.2.4.1 – 3.2.4.5, 3.2.5.1 – 3.2.5.3, 6.6 – 6.7, 6.9 – 6.12, 6.16 – 6.23, and 6.27.
- *Status:* Now halfway through Phase Two (2009 – 2010). Thirteen teams across the country are working with early intervention practitioners, children with ASD, their families and whānau.
- *When can you expect to see something from the work?* The teams are currently working with children, families and early childhood education services. For further information, please access the project website – [www.inclusive.org.nz/asdev](http://www.inclusive.org.nz/asdev) (part of the website is just for the use of participants in the project).