

Report of Provision of Aquatics Education in Auckland Primary Schools 2015 – change in the last decade



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Executive Summary

In 2001 a study was completed regarding the provision of aquatics education for primary-age pupils in the greater Auckland region (Moran, 2002).

Survey Gizmo was used to replicate the survey in May and June 2015. The survey was sent to 553 schools, directly to the lead teacher of aquatics, or asked to be passed on to the lead teacher. 89 schools responded, with 64 completed responses.

Responses included schools with a wide range of decile ratings and school types.

Just over half (56%) of schools had a swimming pool on site, with 79% rating the facility as adequate/extremely adequate for teaching aquatics, 21% rated their facility as inadequate/extremely inadequate. Nine schools (14%) had a pool close down in the last ten years.

Almost all schools (87%) reported they had an aquatics education programme. Schools that did deliver aquatics education focused predominantly on 'learn to swim' (59%). Cost was the main factor given for not delivering aquatics education.

Almost two thirds of schools (63%) participate in externally funded lessons such as GAAAP and FYFOD.

Almost one half (41%) of schools reported staff had a specific swimming / water safety teaching qualification and just over half (53%) of schools had received professional learning and development for their staff dedicated to the teaching of swimming, water safety or other aquatics education, including from WaterSafe Auckland, Swimming NZ, NZ Schools WaterWise, SLS Beach Ed and GAAAP providers.

Schools were asked to rank in order what they would like to do to improve the aquatics education of their pupils, the top two were to increase funding and professional training opportunities for teachers.

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Background

In 2001 a region wide study was conducted regarding the provision of aquatics education for primary-age pupils in 433 schools in the greater Auckland region (Moran, 2002). Concerns around lack of or inadequate aquatics education highlighted teacher qualification and professional development, cost factors of teaching aquatics, and schools that don't teach aquatics.

Results of the study showed most schools (85%) provided aquatics education and almost three quarters (72%) of schools had onsite swimming facilities. More than half of schools (52%) had at least one teacher with a specialist swimming/water safety qualification and less than half (46%) use external providers to deliver aquatics. Just over one third (35%) of schools had received recent professional development.

Students were participating in a reasonable level of aquatics with the average duration of programmes being 16.5 to 18.1 hours per year.

The New Zealand Curriculum (2007) states... *'every child has the opportunity to learn basic aquatic skills by the end of year 6 (p 22)'*. It is up to each school to determine the composition of aquatic skills and the level for children to attain.

Traditionally, aquatics education has been focussed on 'learn to swim' with competence measured in distance swum. From a drowning prevention perspective, swimming alone may not be enough to keep safe, especially in open waters. Internationally, recommendations from the International Life Saving Federation (2007) and aquatic experts (Stallman, R., Moran, K., Brenner, R., & Rahman, A. (2014) advise that a basic level of water safety knowledge, coupled with a basic level of swimming skill (often called survival swimming) is needed to prevent most drowning episodes. Furthermore, Moran (2013) discusses the benefits of changing the terminology from aquatic skills or swim and survive (with its inference that swim = safe), to a broader term of 'water competence'. From an educational perspective, water competence is a developing continuum. Moran defines water competence as *'the sum of all personal aquatic movements that help prevent drowning, as well as the associated water safety knowledge, attitudes, and behaviours that facilitate safety in, on, and around water'* p3.

The Ministry of Education has also recognised the need for school aquatics education programmes to consist of more than just learn to swim, and in a Ministry of Education statement (2011) stating

Learning to swim and developing water safety skills are central to aquatics education but school programmes should consist of more than just learning strokes. Water confidence, water safety skills, water sports, swimming techniques and developing decision making in and around the aquatic environment are all part of aquatics education.

Schools will design their aquatics education programme in the learning area of Health and Physical Education based on the needs of their students, therefore no programme will be the same. Individual school programmes will vary as students' developmental needs and school environments differ p1.

Two programmes that have had significant influence on the delivery of aquatics education in recent years are the FYFOD (Find Your Field of Dreams) Community Swim and GAAAP (Greater Auckland Aquatics Action Plan).

FYFOD Community Swim Programme provides seven free learn to swim lessons for Year 3 - 6 (7-10 year olds) students of all deciles in Auckland South. The programme has the capacity for 81 schools per year with an estimated 22,000 children participating annually. The lessons also include free transportation to and from the school. Water safety is delivered in partnership with WaterSafe Auckland. Community Swim delivers one practical water safety lesson and this is supported with professional development and resources for classroom learning by WaterSafe Auckland.

GAAAP (Greater Auckland Aquatics Action Plan) provides 8-10 free swim lessons for Year 3 - 6 students in low socioeconomic status schools (decile 1-6). The goal is to teach students to swim 200m unaided. Students also receive one lesson on water safety aiming to teach children how to be safe around water. Since its inception in 2012 over 60,000 Auckland children (Years 3-6) across 147 Primary Schools in (Deciles 1-6) have received free lessons.

Another factor that may have influenced aquatics education delivery in recent years is the Auckland Council policy that allows free access to Council swimming pools for children aged under 16 years (Auckland Council, 2013). This policy was intended to allow schools to deliver aquatics education in Council facilities free of charge.



Methodology

In exploring the provision of aquatics education in Auckland primary schools, this study intended to determine:

- the number of schools participating in aquatics education
- the capacity of teachers to deliver aquatics education
- the components of aquatics education (learn to swim, water safety, classroom learning, aquatic sports), and the proportion of each component delivered
- barriers to delivery, and
- areas where schools could be assisted.

A cross-sectional study using self-complete Survey Gizmo survey methodology was used to elicit information on aquatics education provision. Invitations to participate in the project were extended to all 553 Auckland primary schools within the greater Auckland region with a pupil population of approximately 160,000 pupils between the ages of 5–13 years. The survey was sent directly to person responsible for aquatics education within each school, or asked to be passed on to the lead teacher. It contained 21 questions and was expected to take 5-10 minutes to complete. A mixture of response types were used to elicit categorical, nominal and ordinal data. Where opinions were sought, 5-point Likert scales were used ranging from strongly agree to strongly disagree. Rating scales from 1-5 were used for prioritising issues or possible improvements, and open-ended questions were to obtain information on provision of school pools, recent aquatics professional development for teachers, barriers for delivery and perceived standard of aquatics programme.

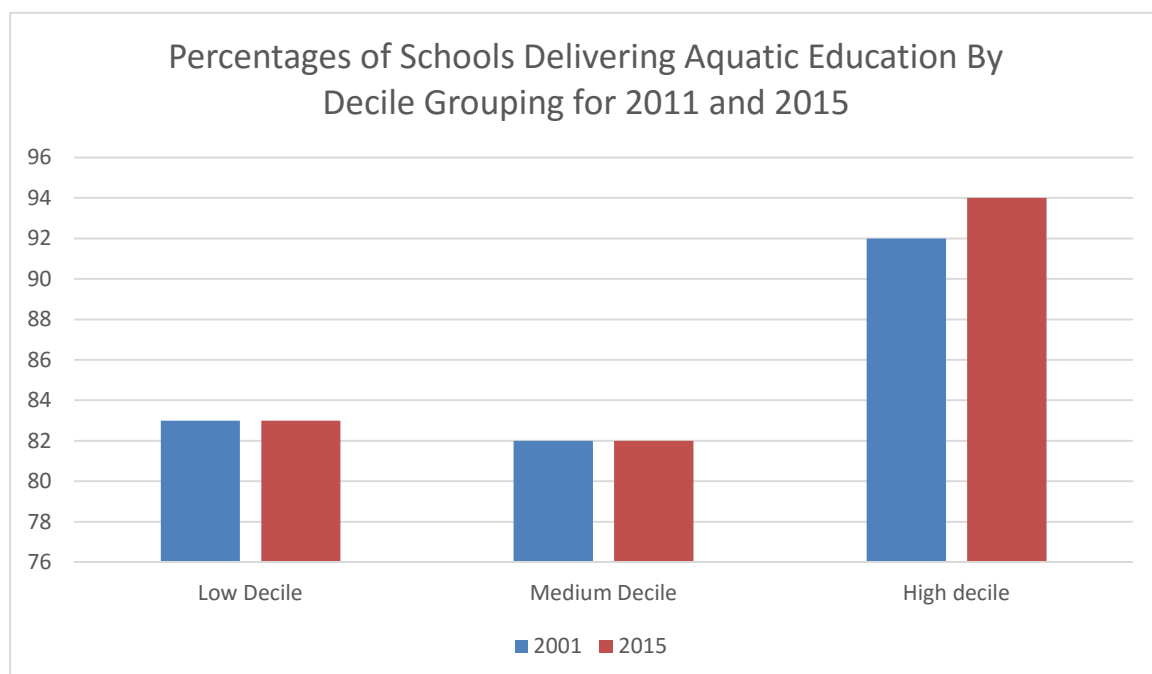
The study was undertaken during the summer term of 2015 when aquatics education was most likely to be taught. The survey was completed online using Survey Gizmo, and data was loaded into IBM SPSS Statistics version 22 for statistical analysis and any chi-square tests of significance.

Results

Responses were received from 89 schools (16% response rate) with a wide range of socioeconomic status.

- Low SES deciles 1-3 – 39%
- Med SES deciles 4-6 – 21%
- High SES deciles 7-10 – 40%

Most schools (87%) indicated they provide some form of aquatic education, slightly higher than reported in 2001 (2001 85%). Although not statistically significant, schools with a high decile rating - indicating a higher socio-economic status were more likely to provide aquatic education. As in 2001 higher decile schools are more likely to offer aquatic education than either low and medium decile schools.



Schools were asked to indicate the facilities used to teach aquatic education. Just over half (56%) of schools had a swimming pool on site, a drop from the earlier study (2001 72%) with nine schools (16%) having a pool close down in the last ten years. Higher decile schools were more likely to have on site aquatic facilities compared to lower decile schools (66% v 45%).

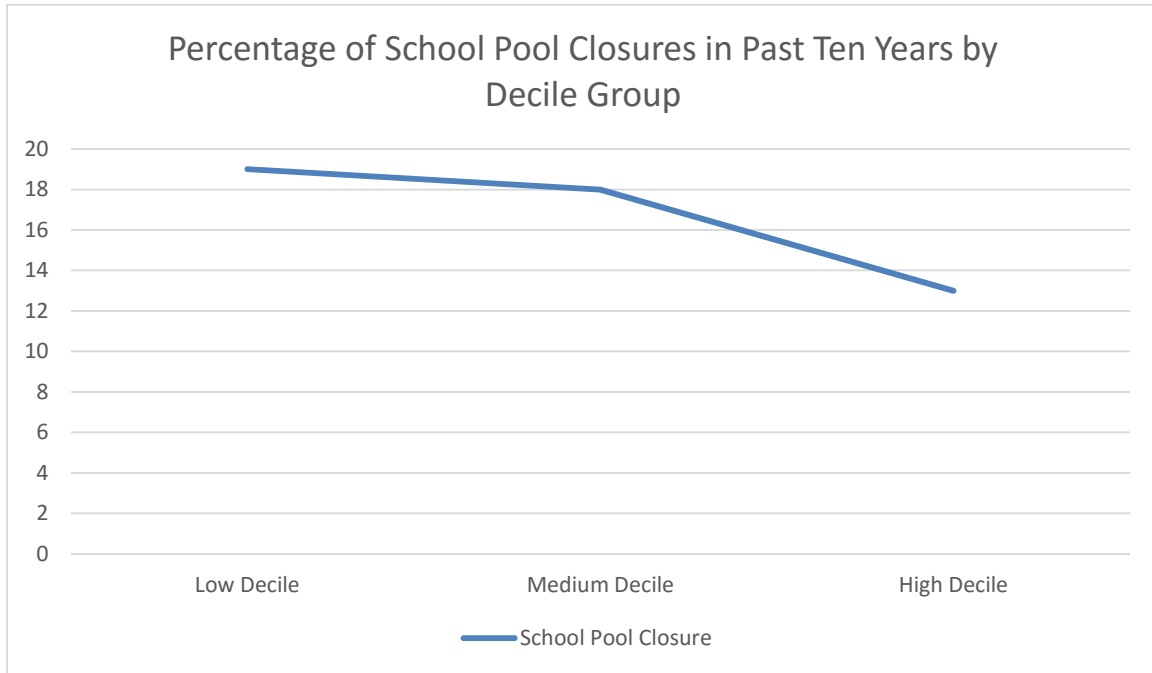
- Low SES deciles 1-3 – 45%
- Med SES deciles 4-6 – 59%
- High SES deciles 7-10 – 66%

Schools with deciles 1 to 6 were more likely to have their pool close in the past 10 years (18/19% v 13%).

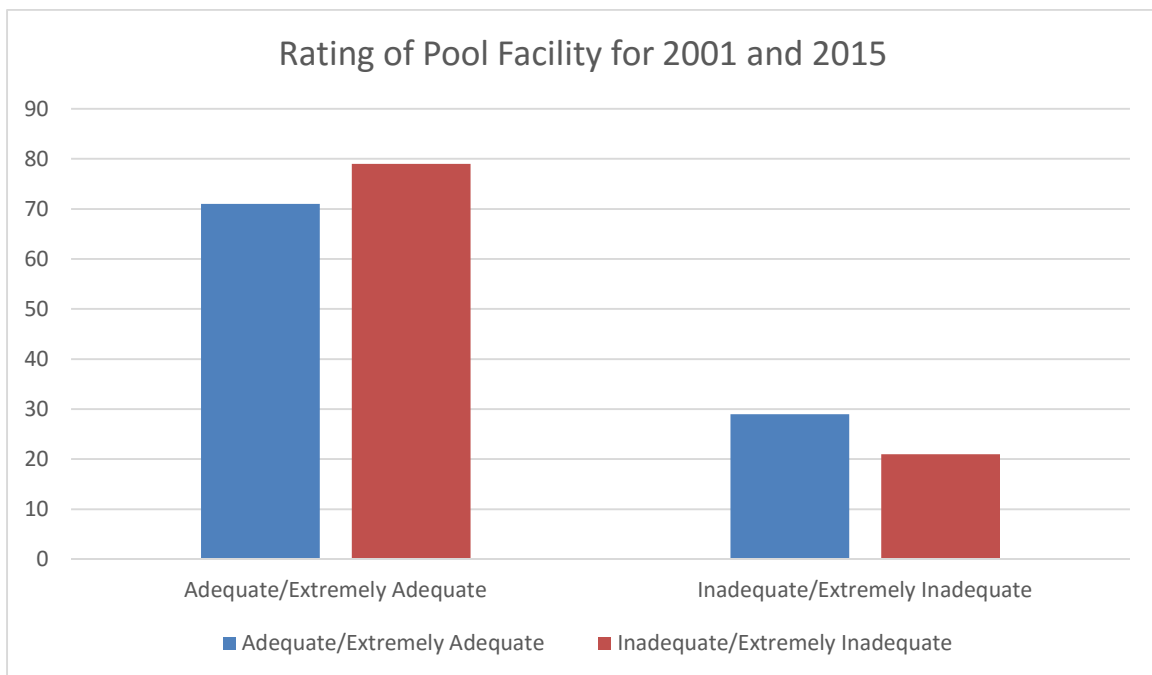
Low SES deciles 1-3 – 19%

Med SES deciles 4-6 – 18%

High SES deciles 7-10 – 13%



Most schools (79%) rated their facility as adequate/extremely adequate for teaching aquatics, an increase from the earlier study (2001, 71%). One fifth of schools (21%) rated their facility as inadequate/extremely inadequate.



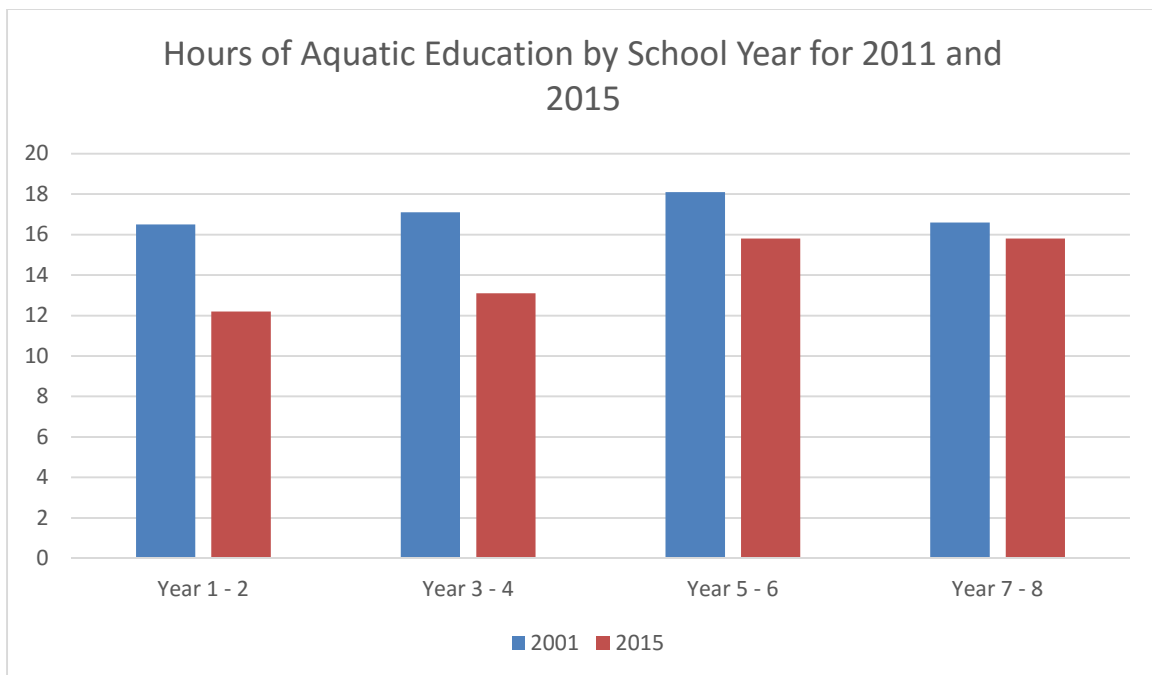
More concerning, the amount of time spent on aquatics education in Auckland schools seems to have reduced for every year level. Schools teaching aquatics were asked to indicate the amount of aquatics education received during each year of their schooling. Shown below are the average hours per school year spent on aquatic education.

Year 1-2 12.3 hours

Year 3-4 13.1 hours

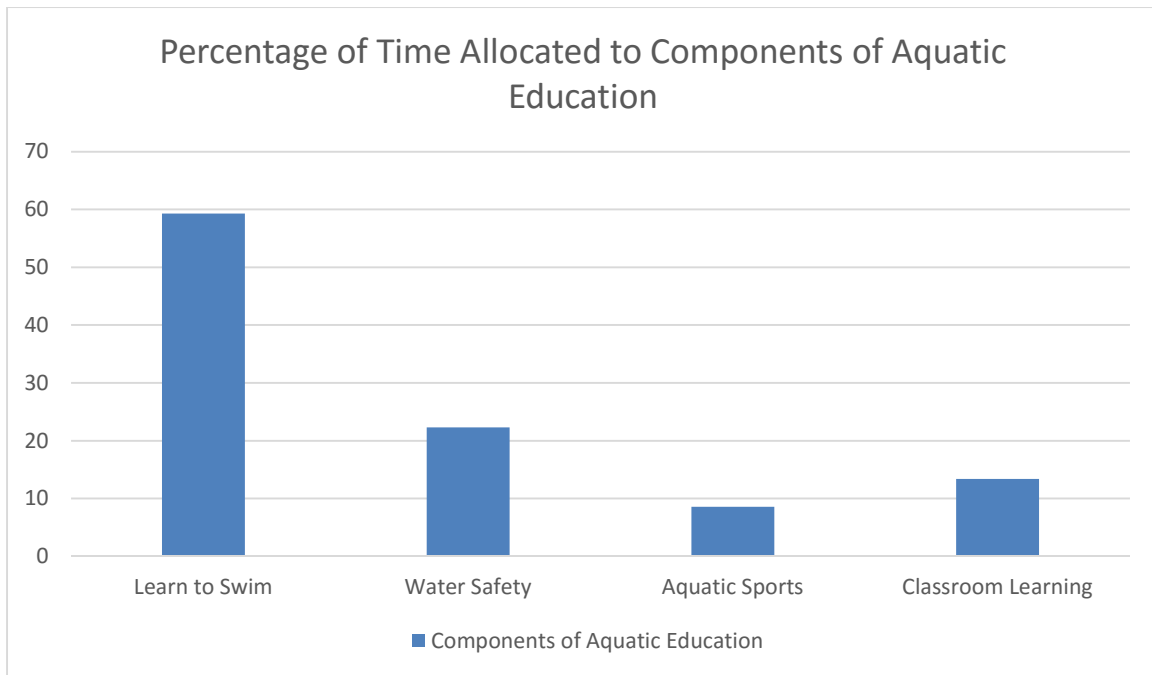
Year 5-6 15.8 hours

Year 7-8 15.8 hours



The average duration of aquatic programmes has reduced 3 to 4 hours per year since the earlier study. In 2011 the average duration of programmes was 16.5 – 18.1 hours per year.

Schools were also asked to indicate how much of their aquatic programme was spent on various components. Delivery of aquatics education is reported to be focused predominantly on 'learn to swim' (59%). The other components were listed as water safety (22.3%), aquatic sports (8.6%) and classroom learning (13.4%).



Schools that did not provide aquatics education were asked what the main barriers for this were. Cost was the main factor given for not delivering aquatics education. Either cost of providing instruction too high 39% (2001 35%), cost of providing transport too high 44% (2001 82%), or cost of hiring a pool 33% (68%). Another barrier was qualified instruction was not available 11% (2001 20%). The following chart shows the barriers ranked in order of importance for both 2001 and 2015.

2001	Overall Rank	2015	Overall Rank
Cost of hiring a pool too great (68%)	1	Cost of providing instruction too high (39%)	1
Cost of providing transport too high (82%)	2	Cost of providing transport too high (44%)	2
Cost of providing instruction too high (35%)	3	Cost of hiring a pool too great (33%)	3
Qualified instruction not available (20%)	4	Qualified instruction not available (11%)	4
Distance from nearest pool too great (37%)	5	Insufficient time available (17%)	5

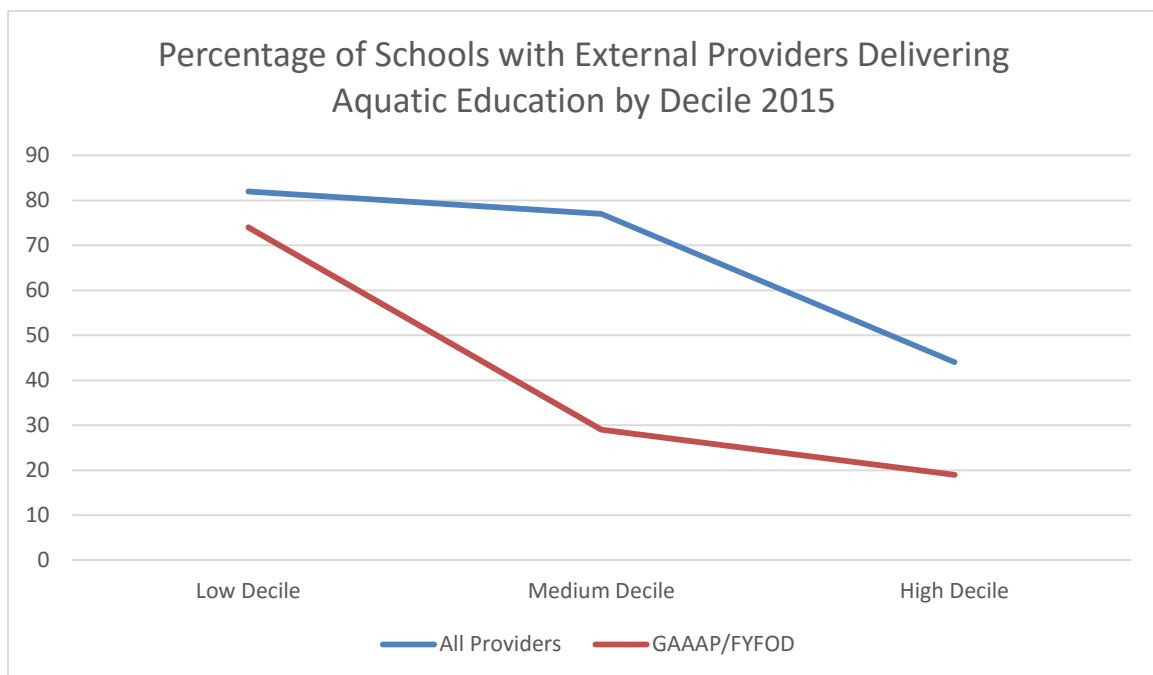
Insufficient time available (334%)	6	Distance from nearest pool too great (6%)	6
Too few children interested (2%)	7	Too few children interested (0%)	7

Schools that provide aquatics were asked to indicate the level of involvement of external organisations delivering their aquatics programmes. Almost two thirds of schools (63%) participate in externally funded lessons such as GAAAP and FYFOD, an increase from the earlier study (2001 46%) when there was no GAAAP or FYFOD. Significant differences were shown when reported by socioeconomic status. Significantly less high decile schools had externally funded lessons, reinforcing the efforts to support lower decile schools with the provision of lessons..

Low SES decile 1-3 82%

Med SES decile 4-6 77%

High SES decile 7-10 44%



Most of the externally funded lessons (81%) were reported as being either FYFOD or GAAAP. Again, significant differences were shown when reported against decile rating with low decile schools significantly more likely to receive GAAAP or FYFOD lessons.

Low SES decile 1-3 74%

Med SES decile 4-6 29%

High SES decile 7-10 19%

Schools that teach aquatics education were asked to indicate the number of teachers involved in teaching the programme that had a specific swimming/water safety teaching qualification. In comparison to the 2001 study, schools reported fewer qualifications now, but have received more professional development. Almost one half (41%) of schools reported that at least one member of staff had a specific swimming / water safety teaching qualification, compared to over half in 2001 (52%). High decile schools reported they were more likely to have a member of staff with a specific aquatic qualification.

Low SES decile 1-3 35%

Med SES decile 4-6 31%

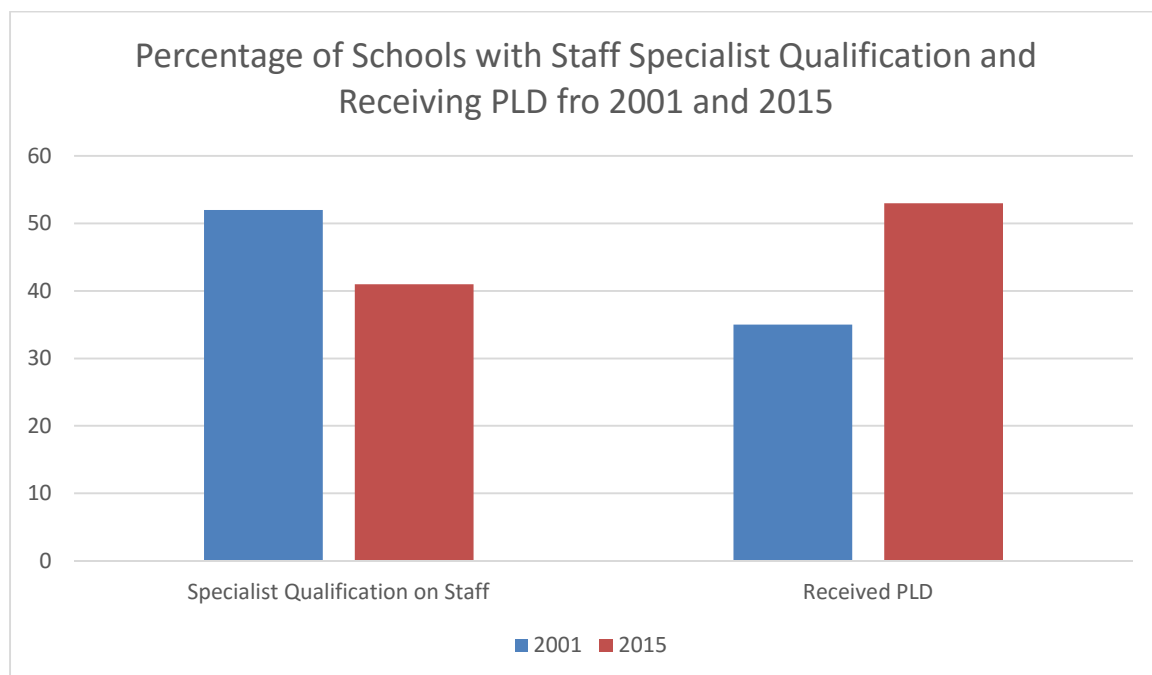
High SES decile 7-10 44%

Schools that taught aquatics education were also asked to indicate the number of teachers who had attended professional development and learning courses on the teaching of swimming and water safety in the previous two years. The number of schools that reported receiving professional learning and development dedicated to the teaching of swimming, water safety or other aquatics education for their staff since 2001 has increased. Just over half (53%) of schools had received professional learning and development for their staff, up from 35% in 2001, including from WaterSafe Auckland, Swimming NZ, NZ Schools WaterWise, Surf Life Saving Beach Ed and GAAAP providers. Similarly, high decile schools reported they were more likely to have received professional learning and development for their staff.

Low SES decile 1-3 46%

Med SES decile 4-6 46%

High SES decile 7-10 56%



Schools currently teaching aquatics were asked to rank in order what they would like to do to improve the aquatics education of their pupils, the highest ranked selections were to increase funding (2015 70%; 2001 52%), increase professional training opportunities for teachers (2015 58%; 2001 60%), and provide more assistance from external swimming/water safety organisations (2015 36%; 2001 39%). The following table lists the improvements ranked in order of importance reported by schools for both 2001 and 2015.

2001	Overall Rank	2015	Overall Rank
Increase professional training opportunities for teachers (60%)	1	Increase funding for aquatics education (70%)	1
Increase funding for aquatics education (52%)	2	Increase professional training opportunities for teachers (58%)	2
Improve the swimming pool facilities (43%)	3	More assistance from external swimming/water safety organisations (36%)	3
More assistance from external swimming/water safety organisations (39%)	4	Raise profile of swimming/water safety in school community (29%)	4
Improve teaching equipment (20%)	5	Acquire commercial sponsorship of aquatics programme (36%)	5
Acquire commercial sponsorship of aquatics programme (15%)	6	Improve teaching equipment (24%)	6
Increase the number of timetabled classes (15%)	7	Improve the swimming pool facilities (29%)	7
Raise profile of swimming/water safety in school community (14%)	8	More guidance from Ministry of Education (11%)	8
More guidance from Ministry of Education (10%)	9	Increase the number of timetabled classes (19%)	9

Discussion

In comparison to 2001 which was a postal self-complete survey, this study was completed on-line. There was a relatively low response rate (16%), and therefore the results need to be taken in perspective. The results show a snapshot of aquatics education in Auckland primary schools and may not be reflective of all Auckland schools.

The percentage of schools providing aquatics education in Auckland has not changed substantially in the past decade despite the new programmes and policies implemented in the sector. Schools reported a slight increase from 85% to 87% for providing some form of aquatics education. FYFOD and GAAAP, both teaching around 20 000 children each year (at a cost estimated to be around \$1million), together with the Council free entry policy have provided additional opportunities for schools in their delivery of aquatics education, but no increase in the percentage of schools delivering aquatics education.

It would have been expected that the number of school pool closures would have reduced the number of schools that provided aquatics. However, analysis of results by pool closure and pool on site showed no correlation between schools that provided aquatics education, and those that had a pool on site, or those that had had a pool close in the last ten years.

A theme running through the study was that high decile schools were better equipped to provide aquatics education. They were more likely to provide aquatics, more likely to have a pool on site, less likely to have had a pool close, more likely to have a staff member with a specific aquatics qualification and more likely to have received professional development and learning.

The emphasis on programmes for the lower socioeconomic schools is shown by the increase in the number of schools receiving externally funded lessons, shown predominantly in the low and medium decile rating schools. Of those schools signed up to GAAAP or FYFOD, most of the focus is on low decile schools, addressing the concerns from 2001 study. GAAAP only delivers to decile 1 – 6 schools, whereas FYFOD delivers lessons to all schools in Auckland South, an area with a high proportion of low decile schools. The predominance of use of external organisations teaching aquatics in low decile schools is a shift from 2001 where low decile schools tended to use their own teaching staff, likely to be a result of the introduction of GAAAP and FYFOD.

Another positive aspect shown in the study is the increase in the number of schools that reported receiving professional learning and development. WaterSafe Auckland, with its emphasis on professional development and learning for teachers over the last decade, may have assisted this.

Barriers to participation remained similar over the decade with the exception of the cost of providing transport. Although transport costs remained one of the top barriers, it had dropped from the top cited barrier in 2001 at 82% down to 44%. This may be a result of the FYFOD programme which provides transport to and from pools as part of the delivery, although another reason could be the current increase in swim school providers and subsequent reduction in travel distances. A number of

schools (11%) indicated a barrier as being qualified instruction not being available. This could be a reflection to a lack of information regarding the professional learning and development opportunities.

Of great concern is the reduction in time spent on aquatics education in Auckland schools for every year level. Aquatics education, that includes water safety, learning to swim, and water safety knowledge and critical thinking are important life skills in the prevention of drowning. Crowded curricular and an emphasis on key curriculum subjects are often cited as a reason for reducing other important learning. It is imperative schools acknowledge the reduction in aquatics education over the past decade and advocate for its place in the school curriculum. It is interesting to see the hours of aquatics education for Year 7-8 students equal to that of Year 5-6 students. Anecdotally it is often reported that students in Intermediate Schools (Year 7-8 schools) receive minimal aquatics education. In this study only 6% were Intermediate Schools with the bulk of schools either Full Primary (30%) or Contributing (Years 1-6, 58%). This low rate of Intermediate Schools may be the reason for no change in the hours of aquatics education delivered.

Schools indicated that they spend around one eighth (13.3%) of their aquatics education in classroom learning and less than one quarter (22%) on water safety. Current recommendations are to include water safety knowledge, risk analysis and critical thinking in aquatics education to help prevent drowning. It is recommended that schools utilise both Health and Physical Education curriculum resources and co-curricular resources to develop this important aspect of aquatics in the provision aquatics education for their children. The over-emphasis of many aquatics programmes on 'learn to swim' (59%) may result in the lack of developing water competence, in its holistic meaning for preventing drowning.



Conclusion

Aquatics education continues to play a significant part in the curriculum of most Auckland primary schools. This survey showed most schools (87%) taught some form of aquatics education in schools with pupils aged 5 – 13 years.

As in 2001, anomalies still exist in the provision of teaching aquatics within decile groups. The slight increase in percentage from 2001 (85%) for all schools has shown no improvement in the disparities between decile ratings of schools providing aquatics education with the only increase being in the high decile area (from 92% to 94%). High decile schools (7-10 decile) are still more likely to deliver aquatics education (94%) than mid decile (82%) or low decile (83%) schools.

The targeted financial assistance to the mid and low decile schools has not changed the overall percentage of schools that provide aquatics education. The sector wide emphasis to deliver programmes, free of charge, for schools has not had much impact on improving the numbers of schools delivering aquatics education. We need to ensure that schools continue to be both supported, both in professional learning and development for teachers, and targeted delivery of lessons, and that schools that currently don't deliver aquatics education are encouraged to participate. It is recommended to continue to target schools that don't have an aquatics programme.

From 2001 to 2015 it would appear that fewer Auckland primary schools have schools with pool facilities, more externally funded lessons, less specialist teacher qualifications, but more professional development, and less time spent on aquatics education. Little change was evident over the past decade in terms of what the barriers are to provide aquatics education or what improvements could be made to help in the provision of aquatics.

It is also recommended that there is continued development of water safety education, especially classroom learning developing knowledge, risk analysis and critical thinking, in order to ensure aquatics education is relevant from a drowning prevention perspective.



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