
Grow Along With Me Project

Quarter 2 ~ 2009-10
(July. – Sept.)

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Prepared for the Grow Along with Me Steering Committee

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Executive Summary

The Chinook 'Grow Along With Me' (GAWM) project is a collaborative, intersectoral, community- based initiative designed to enhance existing developmental screening services for preschool children (18-36 months of age). The purpose of this project is to bring together project partner knowledge and expertise to create an evidence-based, integrated continuum of regional services that will better serve children and their families in the communities where they live.

The **goals** of the 'Grow Along With Me' project are to:

- 1. Identify children with a developmental delay as early as possible, and;**
- 2. Develop a comprehensive continuum of services that provides the right level of service, at the right time, by the right person as near to the child's residence as possible.**

In the second quarter of 2009-10 (July 2009- Sept. 2009) progress toward achieving these goals was evidenced by:

- 50% fewer ASQs were submitted in Q2, 2009-10 in comparison to the previous quarter. This drop was not unexpected as over one hundred children 18-36 months of age participated in community developmental checkups the previous quarter (Q1, 2009-10). Yet developmental screening rates were 23.5% lower than screening rates in the same quarter of the previous fiscal year (2008-09). Contributing factors to these decreased screening rates may have been fluctuating/unclear project end dates, staff turnover, and reduced summer staffing;
- While the total website visit have decreased (n=432, Q1, 09-10, n=320, Q2, 09-10), the proportion of new visits (66.9%) has remained high;
- In September 2009 the GAWM team was invited to share how evidence-informed decision-making and integrated knowledge mobilization strategies were incorporated into the GAWM project at the Research Transfer Network of Alberta conference: Knowledge Transfer. Some Action Required;
- Public Health nursing staff administered over 80% of the developmental check-ups submitted in Q2, 09-10;
- Further assessment (prompted by the ASQ) was seen for the following domains: Communication 12.5%; Fine motor 5.2%; Problem-solving 4.2%; Personal-social 4.1%; and Gross-motor 3.4%;
- CARE referral rates (prompted by ASQ check-ups) were 8.3% (new referrals) and 6.6% (existing CARE clients). There were no urgent referrals prompted by the ASQ;
- There was a trend toward increased multidisciplinary referrals;
- Despite a significant increase in the number of children participating in ASQ developmental check-ups over the course of the study, the proportion of children referred for further assessment has decreased during this timeframe. This may have been associated with a population based (versus targeted) approach to check-ups;
- The clear majority of parents indicated that the developmental check-up was a positive experience; parents valued knowing that their children were developing within the normal range of expectations. Concerns expressed by parents of children not referred for further assessment were: clarity of ASQ questions, the perceived need for a comprehensive examination of their child (in addition to the ASQ), and chaotic, rushed appointments. Parents of children referred to CARE for further assessment similarly reported that their experience with the ASQ and follow-up services was good. Wait times for services was perceived as a significant barrier to receiving services by 25% of parents. Over 70% reported that they were of "somewhat aware" of the Grow Along with Me project; and
- Grow Along with Me Steering Team members reported that shared philosophy and goals, strong leadership, mutual support and accountability, the diverse skill set of project partners and the participatory approach to evaluation were foundation for effective team functioning. The need to revisit stakeholder involvement and working groups was identified. Priorities selected for the coming year included: Rural GAWM staffing, and to review project goals time forward.

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The 'Grow Along With Me' Project.

Q2, 2009-10 Report

I. Introduction

The Grow Along with Me (GAWM) project is a collaborative, intersectoral, community-based initiative designed to enhance existing developmental screening services for preschool children (18-36 months of age). The purpose of this project is to create an evidence-based, integrated continuum of regional services that will better serve children and their families in the communities where they live.

The goals of the 'Grow Along with Me' project are to:

- Identify children with a developmental delay as early as possible, and;
- Develop a comprehensive continuum of services that provides the right level of service, at the right time, by the right person, as near to the child's residence as possible.

This evaluation report outlines processes and outcomes achieved during the second quarter of 2009-10 (July 1 – Sept. 30, 2009). Grow Along with Me project indicators are presented under their corresponding goal and objectives.

II. G.A.W.M. Indicators

Goal 1 To identify children with a developmental delay as early as possible

Objective 1.1 To increase access to evidence-based developmental screening for children and families.

Target: December 31, 2009 ¹

Table 1 Grow Along with Me Ages and Stages Training

GAWM Access Indicators	07-08	08-09				08-09	09-10	
	Q4	Q1	Q2	Q3	Q4		Q1	Q2
Ages and Stages Questionnaire (ASQ)								
Children/parents who completed the ASQ (C.A.R.E., All ages)*	367	603	396	500	515	2014	669	303
ASQs received with consent for evaluation (GAWM project) (including duplicate ASQs)	-	446	331	377	460	1614	488	293
Response rate		74.0%	83.6%	75.4%	89.3%	80.1%	72.9%	96.7%
Duplicate ASQs		16			12	28	5 ^	3 ^
ASQs received with consent for evaluation (GAWM project), no duplicates					448	1586	484	289
ASQ training								
ASQ trainers (e.g Train the Trainer)	2	0	0	0	0	2	0	0
Regional & partner agency staff trained to administer the ASQ**	65	0	0	0	15	80	16	0

Source:

* Meditech All ages, ASQ Information Summary sheets, GAWM project consent forms

** G.A.W.M. Attendance sheets **

*** Includes duplicate consents (e.g. where more than one ASQ per child per age completed)

^ Duplicate ASQ crossed quarters

Note: A child may have had more than one ASQ completed per timeframe

There were 50% fewer ASQs submitted in Q2, 2009-10 in comparison to the previous quarter. This drop was not unexpected as over one hundred children 18-36 months of age participated in community developmental checkups the previous quarter (Q1, 2009-10). Yet developmental screening rates fell by 23.5% in comparison to the same quarter of the previous fiscal year (2008-09). Contributing factors to these decreased screening rates may have been fluctuating/unclear project end dates, community partner organization staff turnover, and reduced summer staffing (Children's CARE services). Computerized documentation of the Ages and Stages Questionnaire in Meditech (Patient Care Services [PCS] platform) may have resulted in misunderstanding regarding the continued need for Public Health Nursing staff to submit paper copies of the screening questionnaire to Children's CARE services.

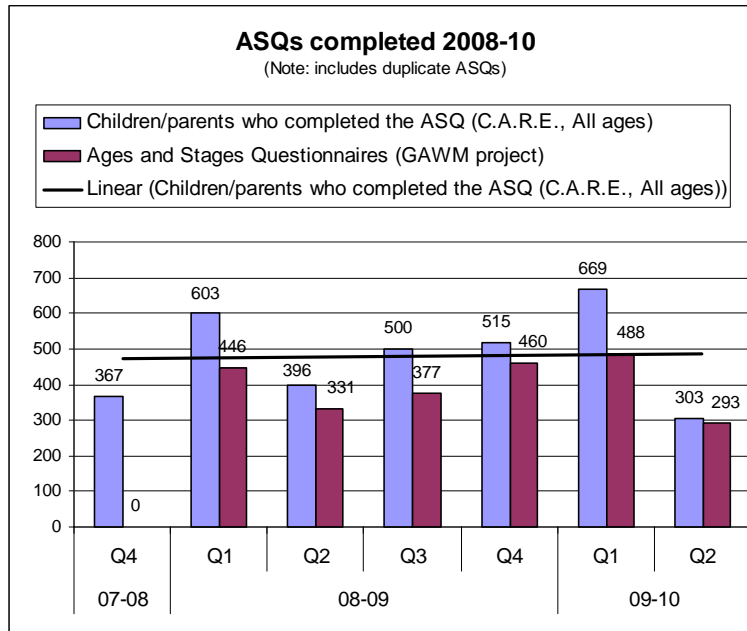


Figure 1 Developmental Checkups submitted each quarter

In Quarter 2 09-10, three children had duplicate age-specific ASQs completed. This is an 81.3%² decrease since Q3, 2008-09 (n=16) and may have reflected enhanced coordination and communication between project partners and families (see Appendix A).

The Grow Along with Me Steering Committee determined that ideally, each child would have two sequential ASQs completed between the age of 18 and 36 months. At Sept. 30, 2009 just over 7% of children (5.9%³, 156/2223) achieved or exceeded this target.³

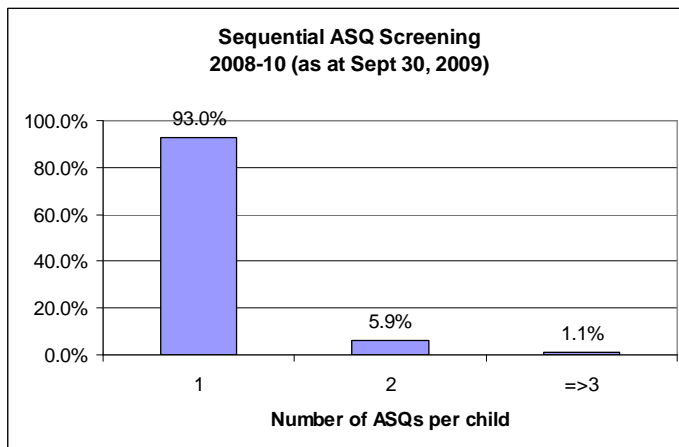


Figure 2 Sequential ASQs completed per child 2008-2010 (as at Sept 30, 2009)

² In some instances (e.g. screenings completed outside the 20-month window for age-specific questionnaires) ASQ authors have recommended that two questionnaires be completed – one for the earlier and one for the more advanced age group. In this instance, duplicate same-age questionnaires would be completed (Squires, Potter & Bricker, 1999)

³ Duplicate ASQs completed for child for a common age group excluded

Objective 1.2

To increase parent knowledge of:

- a) Early childhood development, and;
- b) The importance of periodic developmental screening.

Target: December 31, 2009

Ongoing strategies to enhance parent awareness and knowledge of early childhood development and the importance of periodic developmental screening have included:

- The development of a “Grow Along With Me” website
<http://www.growalongwithme.ca/>;
- Print publications (e.g. parent newsletters);
- Regular TV and radio segments; and,
- Advertising materials (such as poster, displays, and growth charts).

A detailed description of targeted communication/knowledge translation strategies is depicted in the following table:

Table 2 Communication and Knowledge Translation

Communication and Knowledge Translation Indicators	2008-09				2008-09	2009-10	
	Q1 08-09	Q2	Q3	Q4		Q1 09-10	Q2
G.A.W.M. website visits	310	468	485	670	1933	432	320
Unique visitors	203	333	368	540	1444	304	245
% New Visits	65.5%	66.0%	69.3%	75.40%	69.0%	62.7%	66.9%
Hits on the G.A.W.M. home page	268	395	418	485	1,081	405	309
Page views	1,703	2,601	2,359	3,277	9940	2,229	1,253
Average minutes on G.A.W.M. website	2:50	3:58	2:30	2:33	2.67	2.57	1.24
Average # pages/visit	5.5	5.6	4.9	4.9	5.2	5.2	3.9
Bounce Rate **	37.1%	39.7%	41.9%	34.8%	38%	34.3%	39.7%
Visits by Country							
Canada	275	426	442	641	1,784	397	270
USA	21	31	29	22	103	23	17
Other*	13	9	13	7	42	12	32
Subtotal	309	466	484	670	1929	432	319
Print Material							
# printed publications (e.g. newsletters; magazine, etc) (TOTAL)	12	-	500	-	512	500 spring newsletter	-
Free news releases	6	-	-	-	6	-	-
Printed Advertisements	6	-	-	-	6	-	-
TV and Radio							
TV segments (Health Matters – 14 second segments)	2	-	-	-	2	-	-
Public Service Announcement Template	1	-	-	-	1	-	-
Public service announcements	-	-	-	-	0	-	-
TV campaign(s)	2	-	-	-	2	-	-
Radio campaign(s)	1	34	165	165	365	-	165
Paid radio advertising	-	34	165	165	364	~165***	~165***
Other							
Project displays, posters, brochures, growth charts, magnets ordered	15,501	0	1,000	0	16,501	-	-
Project displays	1	-	-	-	1	-	1
Posters	500	-	-	-	500	-	-
Brochures	7,500	-	1000	-	8,500	-	-
<i>Parenting the Strong-Willed Child</i>		-	500	-		-	-
<i>Coping with Toddler Behavior</i>		-	500	-		-	-
Growth charts	5,000	-	-	-	5,000	-	-
Magnets	2,500	-	-	-	2,500	-	-

Source: T. Grindle, Communications, personal communication (Nov. 9, 2009)

**Bounce rate is the percentage of single-page visits or visits in which the person left your site from the entrance (landing) page.

* Includes Australia, Libya, Ghana, Germany, Netherlands, South Africa, Turkey, Nigeria, United Kingdom, Thailand, Vietnam, Saudi Arabia, China, New Zealand Italy, Malaysia, Bulgaria, Puerto Rico, Ireland, Australia, India, Norway Argentina, Phillipines, Brazil, Japan, India, Pakistan, Sri Lanka

***\$680 (40 ads on CJRP) + \$1500 (12 weeks at \$125/week on the River 101.7 for radio and web advertising)

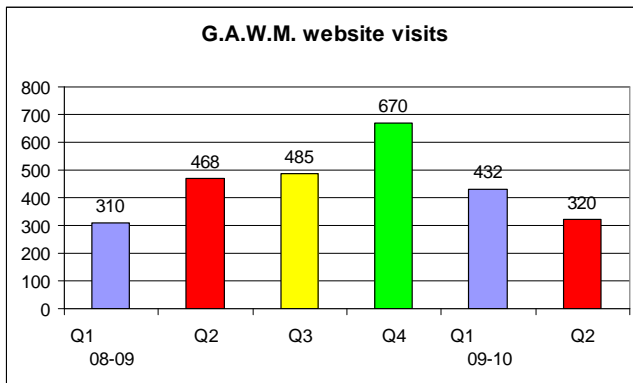


Figure 3 GAWM Website visits

Top web pages viewed in Q2, 2009-10 were the:

- Home Page (24.7%);
- Information for parents and upcoming parent programs (15.8%), and;
- Information for professionals (9.1%).

While the total website visits have decreased, the proportion of new visits has remained high at 66.9%. Furthermore, in summer 2009, over 70% of families with children referred for further assessment indicated that they were aware of the Grow Along with Me project –a substantial increase since Oct 2008 (see Parent Satisfaction: Telephone Surveys, Time 2, pg. 26). A detailed description of web site activity can be found in Appendix B

In September 2009, the Grow Along with Me team was invited to share how evidence-informed decision-making and the integrated knowledge mobilization strategies were incorporated into the Grow Along with Me (GAWM) project. Oral and poster presentations were shared with participants at the Research Transfer Network of Alberta Conference: “Knowledge Transfer. Some Assembly Required” held in Banff Sept 30 – Oct 2/09. The poster presentation is currently on display at the University of Lethbridge Health Sciences department.

Objective 1.3

To adopt a consistent regional referral pathway across partnering service providers in relation to a positive screen for a developmental delay.

Target: December 31, 2009

Client Pathway Audit

Introduction

Coordination of services for Southern Alberta’s diverse and geographically dispersed partners is essential for seamless service delivery and optimal quality of care for children and families. Exploring developmental check-ups and service “client pathways” is a significant first step in improving the services we provide.

A preliminary pathway audit was undertaken in March 2009. The audit clarified the current flow or movement of children through the system and provided the ability to identify successes, misperceptions, inconsistencies and gaps (see the Q4, 2008-09 report, p. 11). Based on audit recommendations and in conjunction with the Primary Care Project, Children’s CARE teams initiated multiple tests of change aimed at enhancing access and efficiency, and reducing wait times. The impact of these quality improvement initiatives will be examined in the final pathway audit.

Pathway audit indicators highlighted in this report are grouped into a) assessment, and b) the referral process. Treatment and wait time summaries will be reported in the final Grow Along with Me Project Report.

A. Assessment

- Three hundred and three ASQs were completed in the second quarter of 2009-10 by parents of children 18-36 months of age (see blue bars, Figure 1).
- The vast majority (96.7%, n=294/303) of parents who completed an ASQ on behalf of their child agreed to participate in the Grow Along with Me evaluation study (see red bars, Figure 1). The record of one child was a duplicate from the previous quarter and eliminated from the study, resulting in a total 293 screens submitted).

Parents completed the developmental screening questionnaire (ASQ) at various community-based service locations as seen in the following table:

Table 3 ASQ Developmental Checkups by Administering Agency

ASQ Developmental Checkups by Administering Agency	2008-09				2008-09	2009-10	
	Q1	Q2	Q3	Q4		Q1	Q2
# of ASQs (GAWM project)	446	331	378	460	1615	488	293
ASQ administering agency	n=446	n=330	n=378	n=460		n=488	n=293
Alberta Health Service (AHS), Chinook, Wellness Services	53.1% (n=237)	75.8% (n=250)	73.5% (n=278)	74.1% (n=341)	68.5% (n=1,106)	65.4% (n=319)	82.6% (n=242)
Community developmental checkup	28.5% (n=127)	NA (n=0)	NA (n=0)	7.0% (n=32)	9.8% (n=159)	21.5% (n=105)	NA (n=0)
Alberta Health Service, Chinook, Children's C.A.R.E.	9.2% (n=41)	13.9% (n=46)	10.3% (n=39)	5.2% (n=24)	9.3% (n=150)	4.5% (n=22)	4.4% (n=13)
Parents as Teachers (PAT)	5.4% (n=24)	6.7% (n=22)	4.8% (n=18)	5.9% (n=27)	5.6% (n=91)	4.3% (n=21)	3.1% (n=9)
Parent Link Centres	2.5% (n=11)	1.5% (n=5)	4.8% (n=18)	4.8% (n=22)	3.5% (n=56)	1.4% (n=7)	2.0% (n=6)
AHS, Chinook, Home Visitation Program	1.3% (n=6)	2.1% (n=7)	6.6% (n=25)	3.0% (n=14)	3.2% (n=52)	2.9% (n=14)	7.8% (n=23)
Duplicate records	-	-	-	-	27	5*	3*
ASQs received in quarter (Duplicates removed)			376	449		484	289

Source: Ages and Stages Questionnaire Demographics

Note: A child may have received more than one ASQ per quarter

*One ASQ received was a duplicated across quarters

Public Health Nursing staff administered over 80% of developmental screens in conjunction with Well-Child Clinic visits in Q2, 2009-10. Visits to regional Well-Child clinics and partner agencies offer naturally occurring opportunities to enhance access to check-up services and early identification and treatment of delays. While the number of ASQs submitted by the Home Visitation Program nearly doubled since in the previous quarter of 09-10, sharp decreases were seen in the number of ASQs completed by Children's CARE staff and Parents as Teachers over the summer months.

The completion of ASQs by rural residents was only slightly less than for urban residents as seen in Figure 4 below;

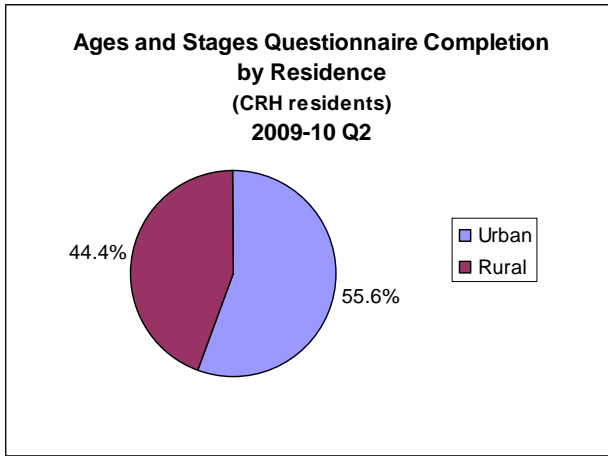


Figure 4 Ages and Stages developmental checkups by rural/urban residence, Q2, 09-10 (n=288/293)

- ASQ completion by rural and urban residence corresponds to the overall geographical makeup of the Chinook Health population, where “nearly half of the residents live in Lethbridge, its largest community, with the remaining scattered throughout more than 40 other towns, villages and surrounding rural areas” (Chinook Health, 2008). (See Appendix C for ASQ Completion by residence)

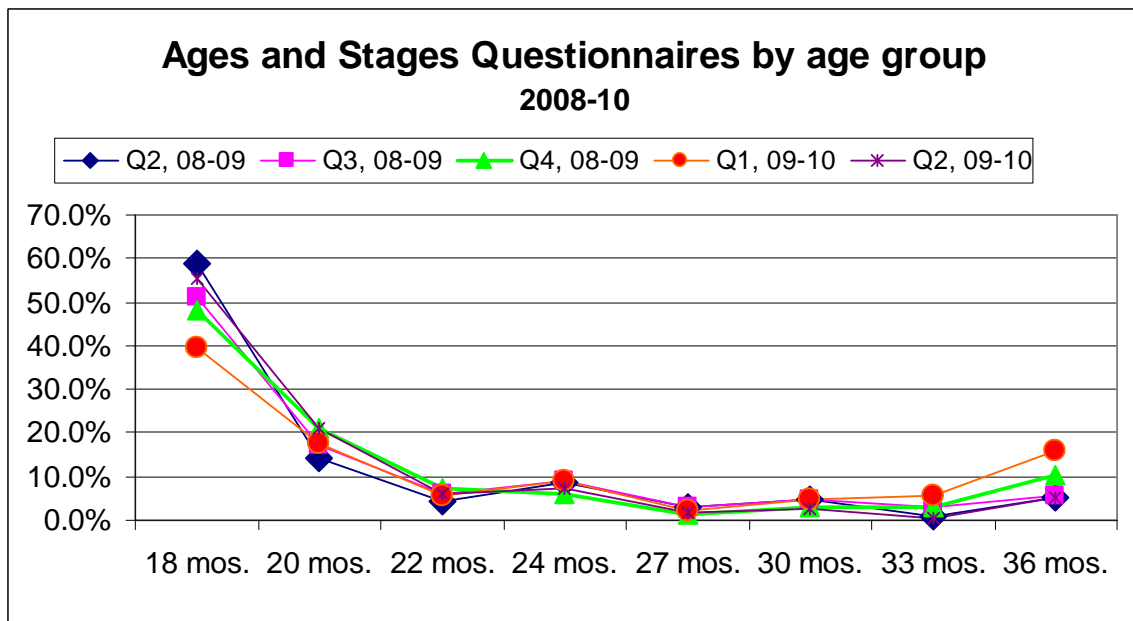


Figure 5 Ages and Stages Questionnaire by age group

- Consistent with previous quarters, Ages and Stages Questionnaires (among children 18-36 months) are most commonly completed by parents of children 18 to 20-months of age⁴.

Consent Process & File Review

Effective April 2009, the following changes were made to the CARE assessment process:

- Consents were completed at the first parent visit (rather than waiting for a completed consent prior to accepting the child for CARE services);
- The START Assessment Team was eliminated, replaced by direct referrals for further assessment/treatment (as required) initiated upon referral; and
- GAWM educator and CARE staff roles were more clearly defined (e.g. GAWM Educator, CORE Group leads, intake service coordinator, CARE receptionist).

As a result of these changes, it is speculated that wait lists and wait times for treatment will decrease.

⁴ Includes prematurity-adjusted age

ASQ Summary

“Each Ages and Stages questionnaire [2nd Edition] contains 30 items that cover five developmental areas [communication, gross motor, fine motor, problem-solving and personal-social] and an additional set of general questions about the child’s overall health and development. Each developmental area contains six items [of enquiry]” (Squires, Potter & Bricker, 1999, p. 66).

Specific criteria guide the scoring and calculation of each questionnaire. Pre-determined cutoff points flag areas where a more “in-depth evaluation is required” (Squires, Potter & Bricker, p. 73). Cutoff points (pre-determined by the authors) have been calculated by subtracting two standard deviations from the mean for each age-specific developmental domain (with the exception of the communications domain where 10 points were added). Mild-moderate and severe criteria (unique to the Alberta Health Services, Chinook GAWM project), have been determined as follows:

- No delay [<2 Standard Deviations from the mean(SD)],
- Mild-moderate delay [2-3 SD], and
- Severe delay [$>3SD$])” (Mark Moland, Personal communication, 09/10/2008), (See Appendix E-1).

For consistency throughout the research study, severity rates have not been adjusted to accommodate revised mean, SD and cutoff points for selected ASQ intervals (18, 22, 27, and 33 months) (Bricker & Squires, n.d., Retrieved July 3, 2009 from the Brookes Publishing Web site: <http://www.brookespublishing.com/asqupdates/cutoff.htm>, see Appendix E-2).

Parent-completed ASQs are tabulated by agency staff and forwarded to Children’s CARE for data entry. Where indicated⁵, referral for further assessment by Children’s CARE staff is initiated.

Data validity and reliability

A pilot audit of data validity and reliability was conducted in fall 2009 (n=110 charts, 2008-09). The most common source of error (9.1%) was lack of age adjustment for prematurity. Similarly, more than 8% of children had the incorrect age-specific ASQ completed. The audit will be expanded to 300 charts to enhance the generalizability of the findings.

ASQ domains and delay classification are presented in the following table:

⁵ (scores falling outside of determined cut-offs),

Table 4 Developmental domains requiring further evaluation ⁶

Developmental Domain % Delay (Below ASQ Cutoff)	2008-09								2009-10			
	Q1, 08-09		Q2		Q3		Q4		Q1, 09-10		Q2	
	N=446		N=331		N=376		N=448		N=484		N=289	
	#	%	#	%	#	%	#	%	#	%	#	%
Communication delay*	63/444	14.2	38/331	11.4	43/376	11.4	49/448	10.9	55/484	11.4	36/289	12.5
No delay (<2 SD)	381/444	85.8	293/331	88.5	333/376	88.6	399/448	89.1	429/484	88.6	253/289	87.5
Mild-moderate (2-3 SD)	36/444	8.1	19/331	5.7	32/276	8.5	22/448	4.9	34/484	7.0	19/289	6.6
Severe (>3 SD)	27/444	6.1	19/331	5.7	11/376	2.9	27/449	6.0	21/484	4.3	17/289	5.9
Gross motor delay*	26/446	5.8	11/331	3.3	13/376	3.5	16/448	3.5	18/484	3.7	10/289	3.4
No delay (<2 SD)	420/446	98.6	320/331	96.7	363/376	96.5	432/448	96.4	466/484	96.3	279/289	96.5
Mild-moderate (2-3 SD)	15/446	3.4	7/331	2.1	7/376	1.9	10/448	2.2	15/484	3.1	7/289	2.4
Severe (>3 SD)	11/446	2.5	4/331	1.2	6/376	1.6	6/448	1.3	3/484	0.6	3/289	1.0
Problem-solving delay*	20/442	4.5	21/328	6.4	14/375	3.7	19/448	4.3	28/481	5.8	12/289	4.2
No delay (<2 SD)	422/442	95.5	307/328	93.6	361/375	96.3	428/447	95.8	453/481	94.2	277/289	95.8
Mild-moderate (2-3 SD)	12/442	2.7	9/328	2.7	9/375	2.4	12/447	2.7	12/481	2.5	8/289	2.8
Severe (>3 SD)	8/442	1.8	12/328	3.7	5/375	1.3	7/448	1.6	16/481	3.3	4/289	1.4
Fine motor delay*	19/445	4.3	19/331	5.7	14/373	3.8	15/449	3.3	18/483	3.8	15/287	5.2
No delay (<2 SD)	426/445	95.7	312/331	94.3	359/373	96.2	433/448	96.7	465/483	96.3	272/287	94.8
Mild-moderate (2-3 SD)	12/445	2.7	9/331	2.7	5/373	1.3	10/448	2.2	10/483	2.1	7/287	2.4
Severe (>3 SD)	7/445	1.6	10/331	3.0	9/373	2.4	5/449	1.1	8/483	1.7	8/287	2.8
Personal social delay*	18/445	4.0	22/330	6.6	14/376	3.7	16/448	3.5	20/481	4.1	12/289	4.1
No delay (<2 SD)	427/445	96.0	308/330	93.3	362/376	96.3	432/448	96.4	461/481	95.8	277/289	95.8
Mild-moderate (2-3 SD)	12/445	2.7	14/330	4.2	6/376	1.6	10/448	2.2	15/481	3.1	9/289	3.1
Severe (>3 SD)	6/445	1.3	8/330	2.4	8/376	2.1	6/448	1.3	5/481	1.0	3/289	1.0

⁶ (Based on Ages and Stages Questionnaire cutoff scores, ASQ version 2, 1999).

Table 4 Developmental domains requiring further evaluation (Continued)⁷

Developmental Domain % Delay (Below ASQ Cutoff)	2008-09								2009-10			
	Q1, 08-09		Q2		Q3		Q4		Q1, 09-10		Q2	
	N=446		N=331		N=376		N=448		N=484		N=289	
	#	%	#	%	#	%	#	%	#	%	#	%
Other (Reverse Scoring)												
Do you think your child has hearing concerns? (% yes)	5/431	1.4	0/327	0	4/373	1.1	6/445	1.3	10/473	2.1	4/288	1.4
You have have concerns that your child may not walk, run or climb like others his/her age? (% yes)	14/434	3.2	16/330	4.8	10/374	2.7	11/445	2.5	21/474	4.4	5/287	1.5
Do you have difficulty understanding most of what your child says? (% yes)	53/431	12.3	52/327	15.9	45/370	12.2	46/434	10.6	62/468	13.2	38/281	13.5
Do you think that you child experiences difficulty in talking at a level similar to others his/her age? (% yes)	109/438	20.8	67/328	20.4	68/370	18.4	65/434	15	81/467	17.3	54/285	18.9
Other												
Has your child had any medical problems in the last several months? (% yes)	75/434	17.3	51/327	15.6	51/371	13.7	69/440	15.7	76/473	16.1	40/287	13.9
Other concerns (% yes)	74/425	17.4	49/323	15.2	60/371	16.2	53/438	12.1	73/468	15.6	41/285	14.4
Does either parent have a family hx of childhood deafness or hearing impairment? (% yes)	29/432	6.7	37/328	11.3	28/372	7.5	34/445	7.6	41/469	8.7	15/284	5.3
Do you have any concerns about your child's vision? (% yes)	19/433	4.4	7/326	2.1	10/372	2.7	10/444	2.3	11/473	2.3	6/286	2.1

Source: A&S Questionnaire Summary

Note: Cutoffs change with ASQ age group

* Includes mild/moderate and severe delays

Note: The first 4 questions under the "Other section" are reverse-scored in Meditech and the research dataset in comparison to the original ASQ questions. Wording in the original tool is: 1. Do you think your child hears well? 2. Do you think your child walks, runs, and climbs like (others his/her age)? 3. Can you understand most of what your child says? 4. Do you think your child talks like (others his/her age)? Consistent with current Meditech reporting, the reporting of these indicators has been adapted to reflect proportion of children with identified delays.

⁷ (Based on Ages and Stages Questionnaire cutoff scores, ASQ version 2, 1999).

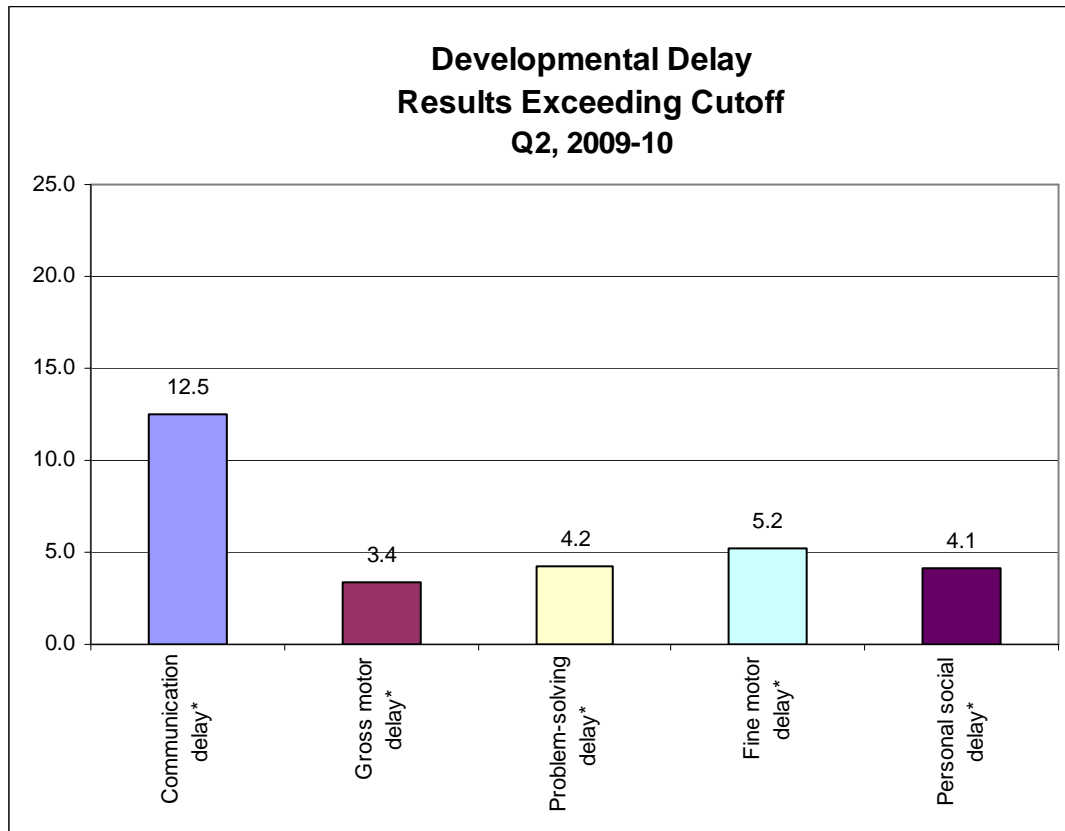


Figure 6 Ages and Stages domain cut-offs: Further Investigation required

- Rates of gross motor, problem solving and personal social delay were lower than seen in the previous quarter (Q1, 2008-09). It is speculated that the community developmental check-up setting and/or staffing may have contributed to higher rates seen in Q1. In contrast, communication and fine motor delays were increased in Q2 in relation to the previous quarter.
- A similar pattern was seen when comparing data across the timeframe of the study. Rates of delay have decreased over the timeframe of the study for all domains with the exception of communication and fine motor. Increased staff and parent awareness related to communication and fine motor development through CORE source offerings may have contributed to enhanced awareness in these domains. Decreased delay rates may have been influenced by the broad population-based approach (versus more targeted approach) taken prior to the GAWM project.
- 13.9% of children had seen a physician within the last several months.
- It is interesting to note that nearly 15% (14.4%) of parents had “other” concerns at the time of screening.
- Statistical control charts have been used to depict “normal” variation found within processes. The charts also allow for the identification of “special case” variations - those that might require further follow-up. With the exception of Q1, 2008-09, the proportion of severity-related delays has fluctuated over time with no discernable pattern and reflects normal dispersion; the process of identification of delays is “in-control”.

Communication Delays

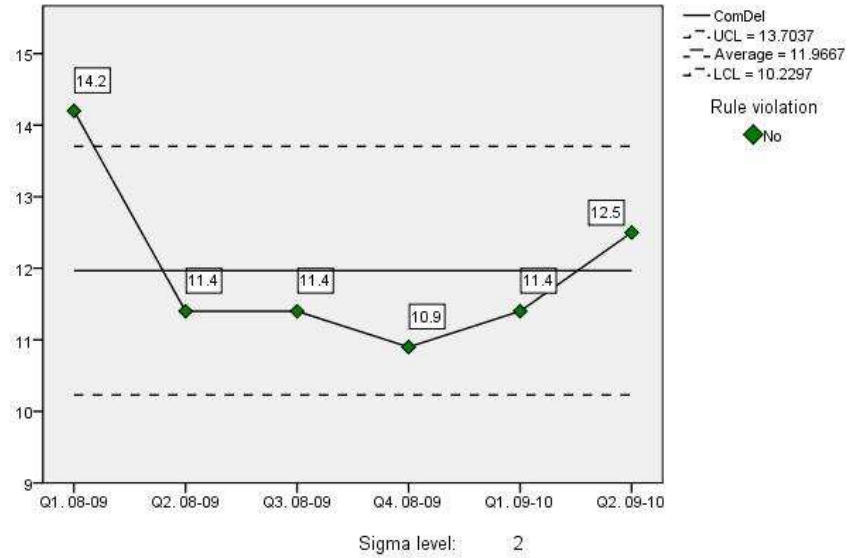


Figure 7 Control Chart: Communication Delays

Gross Motor Delays

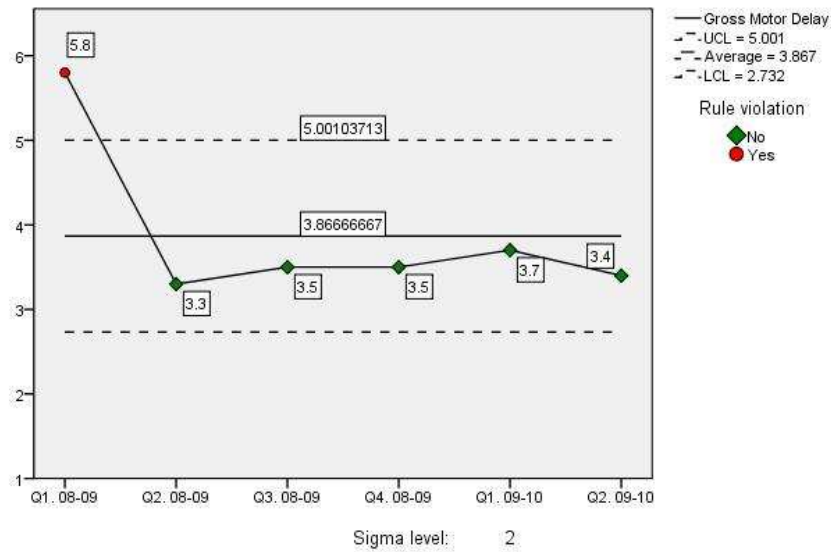


Figure 8 Control Chart: Gross Motor Delays

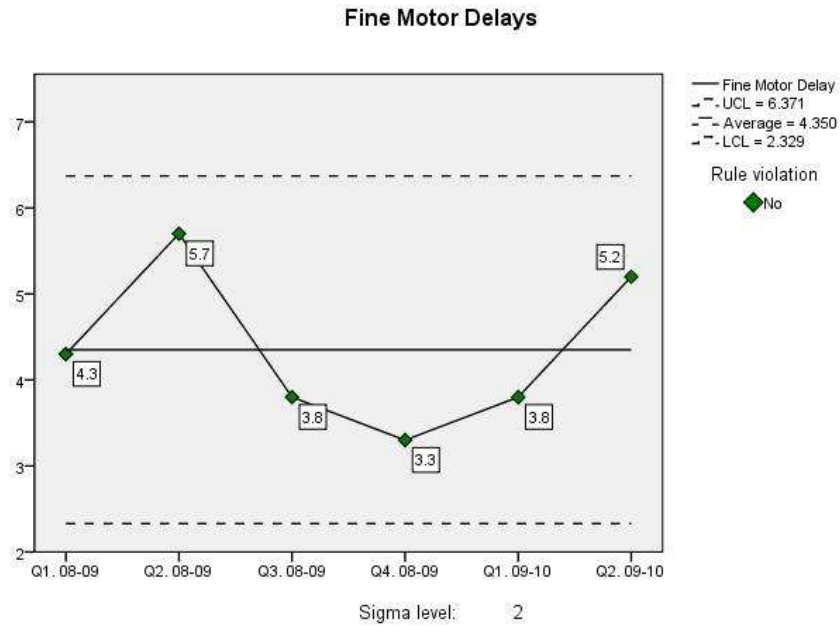


Figure 9 Control Chart: Fine Motor Delays

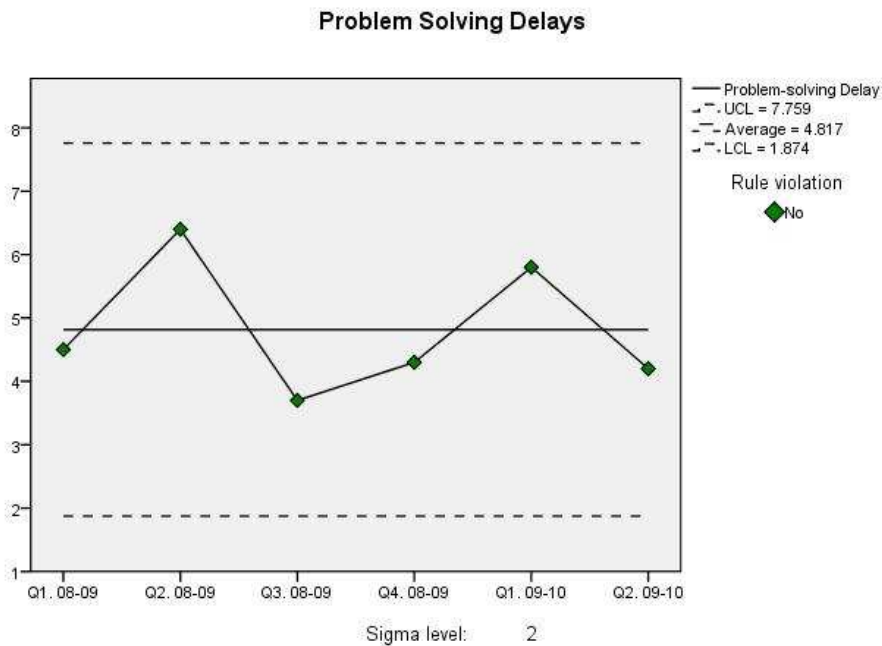


Figure 10 Control Chart: Problem-solving delays

Personal/Social Delays

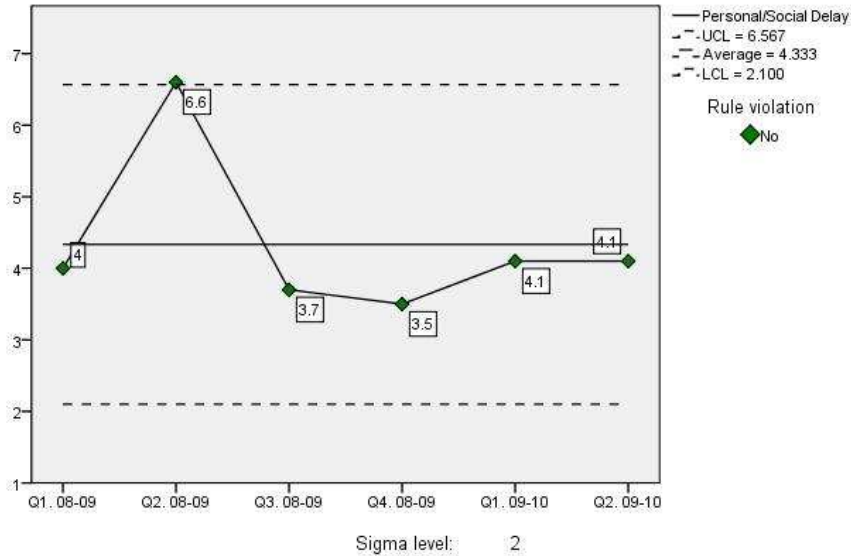


Figure 11 Ages and Stages Domain Cutoffs & Delay Severity: Personal/Social

- The majority of children had no developmental delays identified through the Ages and Stages Questionnaire developmental check-up.



B. the Referral/Treatment Process

Table 5 CARE services referral rates for further assessment following ASQ completion: new, existing and urgent referrals

ASQ Developmental Check-ups.	Q1, 08-09	Q2	Q3	Q4	Q1, 09-10	Q2
Identification of need for further evaluation						
ASQs completed*	n=439	n=331	n=376*	n=449*	n=484*	n=289*
Referral rate	24.2% (106/438)	20.9% (71/339)	15.7% (59/376)	14.3% (64/449)	21.3% (103/484)	14.9% (43/289)
New referrals	17.6% (77/438)	15.7% (52/331)	9.6% (36/376)	9.8% (44/449)	14.7% (71/484)	8.3% (24/289)
Existing C.A.R.E. clients	6.6% (29/438)	5.7% (19/331)	6.1% (23/376)	4.2% (19/449)	6.6% (32/484)	6.6% (19/289)
Urgent referrals	NA	0% (0/331)	0.0% (0/376)	0.2% (1/449)	0.0% (0/484)	0.0% (0/289)
Subtotal	n=106	n=71	n=59	n=64	n=103	n=43
Not referred	75.8% (332/438)	78.5% (260/331)	84.3% (317/376)	85.7% (385/449)	78.7% (383/484)	91.7% (265/289)
Missing	n=1	-	-	-	-	-

Source: Meditech

* Duplicate ASQs removed

- 8.3% (n=24/ 289) of children who participated in an ASQ developmental check-up and whose ASQ was received by Children's CARE services between July and Sept 2009 were subsequently referred to Children's CARE for further assessment. In addition, 6.6% of children referred (n=19) were already on the CARE caseload at the time of request for further assessment. While the proportion of existing CARE clients has been relatively consistent across quarters, the proportion of new referrals decreased sharply from the previous quarter (14.7%, Q1). High re-referral rates (44%, 19/43) may require further examination.
- Overall there has been a 58.2% decrease in referrals in comparison to Q1, 2008-09. Enhanced parent and staff capacity (through GAWM-sponsored education provided in conjunction with the developmental check-up process) may have contributed to lower referral rates.

Discipline-specific referrals

- A child with multiple or complex needs may have triggered a referral to several health disciplines. The trend toward increased multidisciplinary referrals as seen in the table below:

Table 6 Multidisciplinary referrals

ASQ Developmental Check-ups	Q1, 08-09	Q2	Q3	Q4	Q1, 09-10	Q2
Multidisciplinary referrals	n=77	n=52	n=36	n=45	n=71	n=24
One discipline	74.0% (67/77)	71.2% (37/62)	63.9% (23/36)	68.9% (31/45)	62.0% (44/71)	58.3% (14/24)
Two or more disciplines	18.2% (24/77)	25.0% (13/52)	36.2% (13/52)	28.9% (13/45)	38.0% (27/71)	41.6% (10/24)
Undecided	7.8% (6/77)	3.8% (2/52)	-	13.3% (6/46)	-	-
Range	na	na	na	na	1-6	1-3

Source: GAWM Master Spreadsheet. Includes new referrals, urgent referrals and children already on CARE caseload at time of referral. Excludes children who have been discharged and referred for CARE services.



Discipline-specific assignment can be seen in the following table.

Table 7 Discipline-specific referrals for further assessment/treatment (new/urgent referrals)

ASQ Developmental Check-ups. Discipline-specific referrals (new referrals)	Q1, 08-09	Q2	Q3	Q4	Q1, 09-10	Q2
Discipline-specific referrals. ASQ request*	n=98	n=66	n=48	n=45**	n=71**	n=24**
Ages and Stages Questionnaires (GAWM project)	446	331	378	460	484	289
Speech Language Pathology	62.2% (61/98)	68.2% (45/66)	52.1% (25/48)	86.7% (39/45)	87.3% (62/71)	95.8% (23/24)
Infant Preschool Development	10.2% (10/98)	13.6% (9/66)	12.5% (6/48)	6.7% (3/45)	29.6% (21/71)	20.8% (5/24)
Audiology	9.2% (9/98)	3.0% (2/66)	8.3% (4/36)	20.0% (9/45)	14.1% (10/71)	16.6% (4/24)
Physiotherapy	8.1% (8/98)	4.5% (3/66)	12.5% (6/48)	8.9% (4/45)	7.0% (5/71)	8.3% (2/24)
Occupational Therapy	3.1% (3/98)	3.0% (2/66)	4.7% (2/48)	2.2% (1/45)	11.3% (8/71)	8.3% (2/24)
Behavior Management Services	1.0% (1/98)	1.5% (1/66)	6.3% (3/48)	4.4% (2/45)	2.8% (2/71)	0% (0/24)
To be determined	6.1% (6/98)	6.1% (4/66)	4.7% (2/48)	13.3% (6/45)	0% (0/71)	0% (0/24)
Rereferred CARE clients						

Source: Ages and Stages Questionnaire Scoring Sheet, Included new or urgent referrals, excluded: existing CARE clients

* Note a child may have been referred to more than one discipline, multiple referrals could have been made at different questionnaire intervals.

** Age-specific ASQ duplicates removed

- Consistent with the high relative rate of communication delays identified through the ASQ, the vast majority of requests in Q2, 09-10 were for speech language services. Increased rates of motor delays were reflected in increased request for occupational therapy services. The spike in requests for infant preschool development referrals may reflect the referrals that would have been addressed (in previous quarters) by the START team. Higher demand for audiology and occupational therapy services may be accounted for by exaggerated relative (in comparison to absolute) values.
- Referrals for speech language pathology have continued to climb over the course of the study. Reasons for this increased demand may require further exploration.

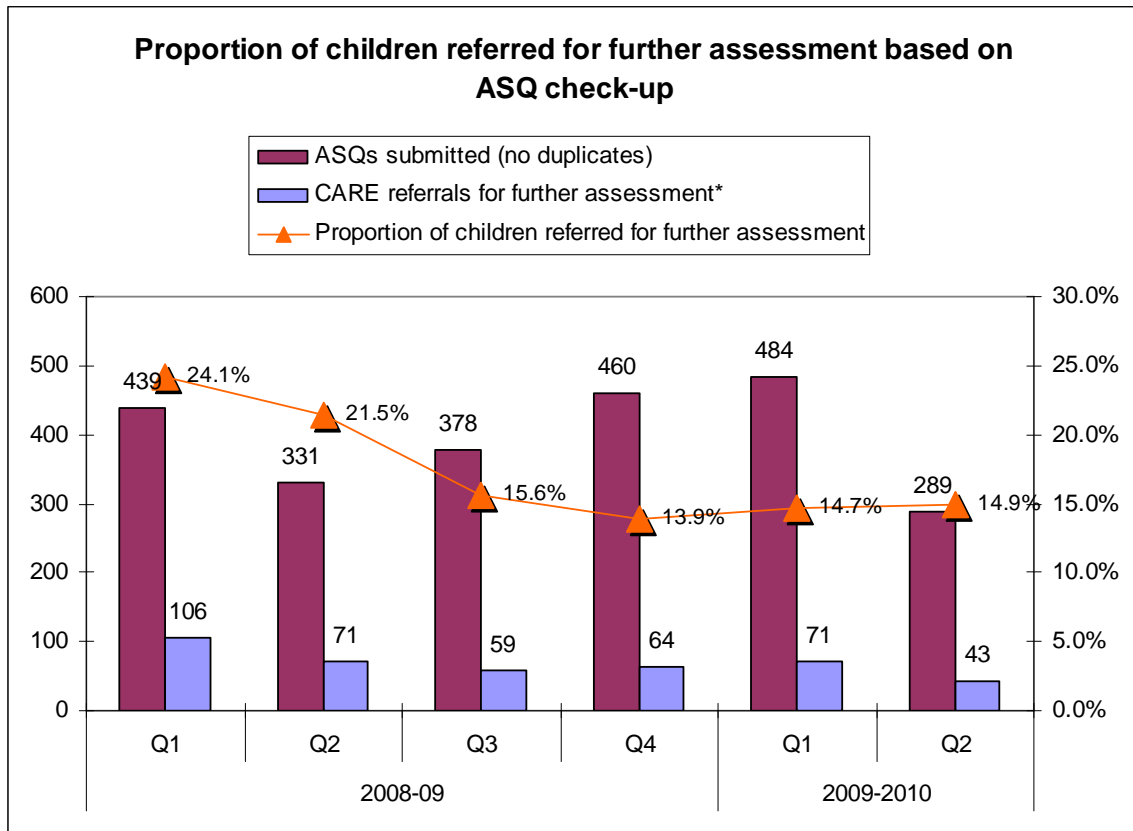


Figure 12 Requests for further assessment (CARE Services) prompted by the ASQ check-up

*Note: Children rereferred after completion of their treatment cycle (CARE) are included in the number of referrals

- Despite a significant increase in the number of children participating in ASQ developmental check-ups since the initiation of the GAWM project, the proportion of children referred for further assessment as a result of the ASQ developmental check-up has decreased during this same timeframe (Q4, 08-09, 24.1%, Q2, 09-10, 14.9%). This may reflect the increased specificity and sensitivity of referrals initiated as a result of the ASQ and the overall effect of an integrated screening approach (including staff education, capacity building, and community development).

Planned/Defined Outcome

In addition to the above utilization measures, parent satisfaction and project sustainability are outcomes measures being tracked in conjunction with the GAWM project.

Parent Satisfaction: Telephone Interviews

A. Children with no identified delays (Time 1 & Time 2)

Parents whose children received developmental screening using the Ages and Stages Questionnaire (ASQ) and who had nothing untoward discovered (e.g. a “normal” checkup) consented to be interviewed via the telephone about their experiences (Time1, n=63, Participation rate 66.7%; Time 2, n=100, Participation rate 38.2%).

- The clear majority of parents (Time 1, 81.0% [51/63]; Time 2, 83% [83/100%]) indicated that the developmental checkup was a positive experience. Parents valued knowing that their children were developing within the normal range of expectations.



- The Ages and Stages Questionnaire (ASQ) provided reassurance that all was “well” with their children.
- A minority of parents (Time 1, 17.5% [11/63]; Time 2, 15.0% [15/100]) identified some concerns about their experience, including:

Time 1(Summer 2008)

Parents in the first cohort interviewed who completed the ASQ during well child immunization visits observed that:

- The person administering the ASQ did not listen to them (parents);
- It was difficult to answer some of the ASQ questions-- having the questions in advance would have been helpful;
- The ASQ was not really optional; and,
- There was some burden associated with completing the ASQ (for example, managing the other children without assistance, trying to focus on the child’s immunization while having to also complete the ASQ, and not having the ASQ available on-line).

Time 2 (Spring 2009)

Parents in the second cohort reported that:

- They found the (ASQ) questions redundant or confusing; and,
- No one looked at their child.

Participants from both cohorts reported that community-based agency checkup experiences were sometimes “chaotic” and appointments were rushed.

B. Children referred to CARE for further assessment based on Ages and Stages developmental check-up (Time 1 & Time 2)

The purpose of the telephone surveys targeting parents of children referred to Children’s CARE services for further assessment was to understand their journey from completion of the developmental screening through to discharge from Children’s C.A.R.E. services (Time1, n=18, Participation rate 69.2%) (Time 2, n=32, Participation rate 45.7%).

Highlights of the telephone interviews included:

Time 1, Summer 2008

- The majority of parents expressed positive feelings toward the ASQ and for follow-up provided by Children’s CARE Services; notably, they felt empowered with respect to their child’s growth and development and valued the additional assessment and treatment. The vast majority of parents learned something new about early childhood development and the developmental check-up as a result of their experience.
- The time between completion of the ASQ and initial contact for follow-up ranged from a few weeks to 8-9 months. Half of the children (50%, 9/19) obtained further assessment and/or intervention within 4-6 months (16.7%, 3/19). Two parents waited longer than 6 months. Over 70% of the parents (72.2%, 13/18) viewed the wait time as reasonable.
- The majority of children (88.9%, 16/18) were referred to a speech language pathologist. Over 1/3 (33%, 6/18) did not require further services or intervention – parents perceived suggestions and/or educational material received in conjunction with the assessment as valuable.

- More than half of the parents interviewed (68.8%, n=27) reported that their experience with the ASQ and follow-up services was good. Most parents (62.5%; n=20) reported that the check-up provided them with new information about child developmental milestones, their child's capabilities; and ideas of how to interact with their child to promote optimal development. More than half of the parents who reported they did not learn anything new about child development (54.5%; 6/11) were already aware of this information, either through education or experience (i.e. running a day care home, or having several other children who had developmental check ups).
- Follow-up services for the majority of children (84.4%, n=27) included; parent and child programs and classes, speech, physio or occupational therapy, suggestions for home-based activities, and exercises and preschool funding support. Just over twelve percent of children referred to CARE (12.5%, n=4) received no follow-up services post-assessment. One parent reported that her child had received no services at the time of the telephone interview.
- Wait times for service was perceived as a significant barrier to receiving services by 25% of parents (n=8). While nearly half of the parents (46.9%, n=15) reported that wait times were satisfactory, 34.4% (n=11) disagreed. Average wait time⁸ for "satisfied" parents was approximately three months in comparison to more than 9 months for their "dissatisfied" counterparts. Despite any dissatisfaction about waiting times, the majority of parents (75%, n=24) stated that they were satisfied with the service provided, while 12.5% of parents indicated that they were not sure, or that such services could have been better. Only 6.25% of parents stated that they were not satisfied. Five parents expressed a lack of clarity about the process of completing the Ages and Stages Questionnaire. Their queries included: how would a parent have known about the ASQ if they did not happen to stumble upon it? Is it common to wait as long as one parent did? How often is the ASQ given? Is it just a one-time thing?
- Over 70% of parents (71.9%, n=23) reported that they were aware or "somewhat aware" of the Grow Along With Me project.

Sustainability. The 'Grow Along With Me' Partnership Self-Assessment Inventory

The purpose of this evaluation component was to document and measure the evolution of **organizational** capacity among Grow Along with Me partners over the duration of the project. Multimethod formative and summative evaluations comprised of:

- The G.A.W.M. Partnership Self-assessment Inventory; and
- Partner Focus Group

were conducted in June 2008 [Time 1] and in Sept-October 2009 [Time 2]. Quantitative and qualitative data was triangulated, commonalities and difference explored within and between Time 1 and Time 2, and successes and opportunities for improvement identified.

Results and discussion

Shared philosophy and goals, strong leadership, mutual support and accountability, the diverse skill set of project partners, and participatory approach to evaluation were seen as foundational for effective team functioning. The need to revisit stakeholder involvement and working groups was identified at the summative evaluation. Areas identified as priorities for improvement in the formative evaluation frequently appeared as strengths in

⁸ Wait time from referral to intervention



the summative evaluation. This may be attributed, in part, to an embedded quality improvement approach and transparent, active management of identified concerns. It is interesting to note that interorganizational communication was deemed a priority at both the formative and summative phases of the project. The full report can be found in Appendix E.

Objective 1.4

To increase Chinook Health staff involvement with community-based programs.

Chinook Health staff involvement with community programs has been enhanced through:

- Co-facilitated core educational sessions;
- Integrated meetings (e.g. Grow Along with Me Educator Meetings) and;
- Off-site visits (Children's C.A.R.E. staff and community based organizations [e.g., Parent Link Centers, Parents as Teachers, day cares/homes, etc]) to network, and share information and resources.

Detailed staff workload information from the Nov-Dec 2008 pilot was reported in Q3, 2008-09.

Goal 2 To develop a comprehensive continuum of services that provides the right level of service, at the right time, by the right person as near to the child's residence as possible.

Objective 2.1

To provide a child and their family timely screening and assessment services.

Target: October 2007

Wait Times

Discipline-specific wait times will be reported in the Critical Pathway Audit.



Objective 2.2

a) To increase Chinook Health’s professional staff involvement with partnering community agencies (i.e., Parent Link Centers, child care facilities, and community agencies), and;

(b) To increase the utilization of paraprofessional staff to support the enhancement of developmental screening and follow-up services in the Chinook Health Region.

Target: Oct 2007

See objective 1.3

Objective 2.3

To increase partner agency staff knowledge regarding early childhood development as well as the importance of periodic developmental screening and services available to support children and families.

Target: Dec. 31/2009

Staff knowledge, attitudes and perceptions. Periodic developmental screening

“Grow Along With Me” partners and staff play a critical role in creating (and utilizing) appropriate screening procedures, developing strategies for engaging families in the screening process, and identifying methods to prompt follow-up on results of the screening. During the timeframe of the study, educational sessions were offered to four cohorts (public health nurses, GAWM Educators, Day Care and Day Home staff). Participants were invited to complete an assessment of their knowledge and attitudes (toward developmental screening and the Ages and Stages Questionnaire) prior to, immediately following, and six months after the educational sessions. Preliminary results are presented below:

In February-March 2008, 65 participants attended the “Grow Along With Me’ sponsored Ages and Stages educational sessions (PHNs 61.5%, n=40, multidisciplinary staff 38.5%, n=25). Both cohorts reported increased knowledge regarding the Ages and Stages Questionnaire and increased confidence in managing referrals following the educational sessions and more than half reported that six months after the educational sessions the use of the ASQ increased in their practice setting as a result of training

In March – April 2009, Ages and Stages educational sessions were held with 30 Day Care/Day Home staff. Day Care/Day Home staff reported significantly greater confidence in managing follow-up services after identification of a developmental delay immediately after (in comparison to before) the educational sessions. Cohort 3 (Odyssey Childcare) reported significantly greater confidence in scoring the ASQ and in staff perception of service timeliness and accessibility. Analysis of the 6-month follow-up survey (conducted in fall 2009) is underway.



Objective 2.4

To increase Chinook Health’s capacity to offer core training programs and other ECD educational modules to all partner staff.

Target: October 2007

‘Grow Along with Me’ project CORE educational courses include:

Table 8 Grow Along with Me Core Education Sessions⁹

Target	CORE Sessions
Universal	<ul style="list-style-type: none"> · Learning Language and Loving It · You Make the Difference
Targeted	<ul style="list-style-type: none"> · Coping with Toddler Behavior · Parenting the Strong-willed Child
Clinical	<ul style="list-style-type: none"> · Target Word · Responsive Teaching

Core training and education initiatives have targeted two stakeholder groups: parents and GAWM staff. The number of sessions and session attendance for each stakeholder group are presented in the following section:

⁹

Universal. Covering the collective whole; available equitably to all;

Targeted. Directed toward a target group;

Clinical. Targeted toward observable and diagnosable symptoms.

(adapted from Merriam Webster online dictionary: <http://www.merriam-webster.com/dictionary/clinical>)



A) Parent Education

Table 9 GAWM Education Session Attendance

Communication and Knowledge	2008-09					2009-10	
Parents							
Indicators	Q1	Q2	Q3	Q4	08-09	Q1	Q2
Number of core groups offered to parents							
COPEing with Toddler Behavior	4	0	1	1	6	1	0
Parenting the Strong-Willed Child	3	0	2	2	7	8	0
You Make the Difference	0	0	2	1	3	3	0
Total:	7	0	5	4	16	12	0
Child Care & Incentives: Core Parent Groups							
# Core Groups with child care available	5	0	2	4	11	11	0
% of Core Groups with child care available	71.4%	na	40.0%	100.0%	70.5%	91.7%	na
# Core Groups with incentives	4	0	3	1	8	9	0
% of Core Groups with incentives	57.1%	na	60.0%	25.0%	47.4%	75.0%	na
Parents registered for core groups							
COPEing with Toddler Behavior	51	0	12	17	80	8	0
Parenting the Strong-Willed Child	35	0	19	24	78	97	0
You Make the Difference	0	0	15	6	21	23	0
Total:	86	0	46	47	179	128	0
Parents attending core groups							
COPEing with Toddler Behavior	42	0	9	15	66	8	0
Parenting the Strong-Willed Child	30	0	10	19	59	76	0
You Make the Difference		0	14	4	18	19	0
Total:	72	0	33	38	143	103	0
Number of other sessions/presentations offered to parents							
Other (not one of the core programs)	6	0	0	9	15	3	1
Total:	6	0	0	9	15	3	1
Parents attending other sessions/presentations							
Other (not one of the core programs)	134	0	0	190	324	25	7
Total:	134	0	0	190	324	25	7

Source: Community Education Tracking Form

Revised Feb 5/10

Table 10 CORE groups by location

Core groups by location	2008-09		2009-10			
			2009 Q1		2009 Q2	
	Urban	Rural	Urban	Rural	Urban	Rural
COPEing with Toddler Behavior	2	4	1	0	0	0
Parenting the Strong-Willed Child	1	6	2	6	0	0
You Make the Difference	2	1	1	2	0	0
Learning Language and Loving It	1	0	0	0	0	0
Total	6	11	4	8	0	0

Source: G.A.W.M. Community Education Tracking Form

Revised Feb. 5/10

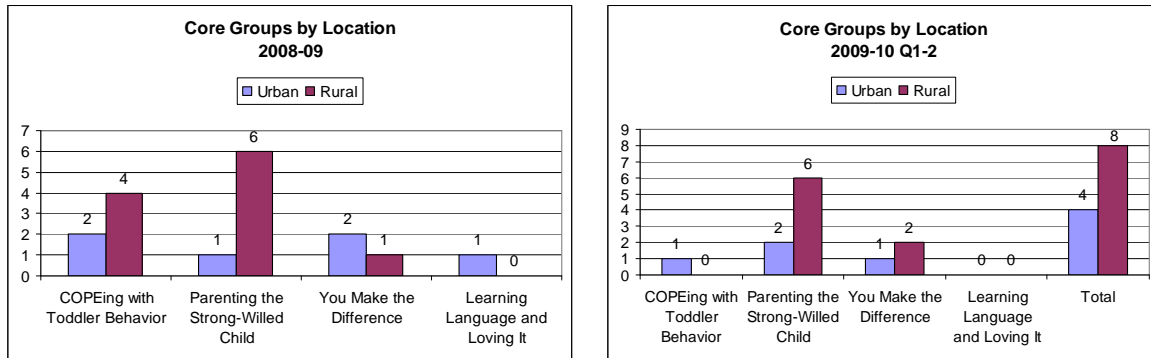


Figure 13 CORE educational groups by rural/urban location

Since the inception of the project:

- Over 560 parents have attended GAWM-sponsored early childhood development educational sessions (n=568).
- Nearly twice as many CORE courses have been offered at rural sites (n=19) in comparison to courses offered in Lethbridge (n=10) between Apr 2008 and Sept. 2009.
- No CORE courses for parents were offered in Q2, 2009-10, due to summer holidays and limited parent availability at the start of the school year. In contrast, 56 multi-organizational staff attended CORE course facilitator sessions (Parenting the Strong Willed Child and COPEing with Toddler Behavior) in preparation for the coming year (see Table 11).

Course availability and content are continually updated on the 'Grow Along with Me' website (http://www.growalongwithme.ca/info_for_parents/upcoming_parent_programs).



B) Staff Education

Table 11 GAWM Education Session Attendance. Staff

Communication and Knowledge Translation	2007-08		2008-09			08-09	2009-10	
Staff & Partners								
Indicators	Q4	Q1	Q2	Q3	Q4		Q1	Q2
Facilitator training: core groups offered								
COPEing with Toddler Behavior	-	0	0	0	0	0	0	0
Parenting the Strong-Willed Child	-	0	0	2	0	2	0	1
You Make the Difference	-	0	0	0	0	0	0	0
Learning Language and Loving It (Includes Teacher Talk)	-	0	0	0	0	0	0	0
Responsive Teaching	-	0	0	0	0	0	0	0
Total:	-	0	0	2	0	2	0	1
Partners attending core group facilitator training								
Chinook Health								
Physiotherapists	-	0	0	0	0	0	0	0
Occupational therapists	-	0	0	0	0	0	0	0
Infant Preschool Development Educators	-	0	0	2	0	2	0	0
Speech language pathologists	-	0	0	0	0	0	0	3
Parent Links	-	0	0	8	0	8	0	5
Parents as Teachers	-	0	0	3	0	3	0	0
Other Organizations	-	0	0	8	0	8	0	10
Total:	-	0	0	21	0	21	0	18
Number of core groups offered to staff								
Teacher Talk	-	0	0	0	0	0	0	0
Learning Language and Loving It	-	1	0	1	0	2	0	0
Total:	-	1	0	1	0	2	0	0
Staff attending core groups								
Teacher Talk	-	0	0	0	0	0	0	0
Learning Language and Loving It	-	15	0	14	0	29	0	0
Total:	-	15	0	14	0	29	0	0
Number of other sessions/presentations offered to staff								
Other (not one of the core programs)	2	0	1	2	6	9	4	1
Total:	2	0	1	2	6	9	4	1
Staff attending other sessions/presentations								
Other (not one of the core programs)	50	0	30	37	56	123	92	25
Total:	50	0	30	37	56	123	92	25

Source: Community Education Tracking Form

Note: Revised Feb 5/10



Objective 2.5
To increase:
a) Parent’s knowledge of partner services, and;
b) Service providers’ knowledge and abilities to support early child development.

Target: January 1, 2008

Parent Focus Groups

Between September and December, 2008, 21 geographically-dispersed participants participated in four focus groups and one telephone interview. While most parents strongly endorsed the preventive nature of regular developmental checkups, many expressed confusion regarding Grow Along with Me - its intent and purpose, organizational and structural relationships, and project scope. Parents offered suggestions as to how to optimize the developmental screening project. Their comments and suggestions closely mirrored those of telephone interview respondents. A copy of the preliminary report is available on the Grow Along with Me website:

<http://www.growalongwithme.ca/files/2009%20Mar%20GOLD%20Parent%20Focus%20Group%20FINAL.pdf>

Due to the overlap between telephone interview responses and parent focus groups (spring and fall, 2008 respectively), repeat focus group sessions (planned for fall 2009) were placed on hold. An additional question was added to the Time 2 Telephone Survey in relation to awareness of the Grow Along with Me project (see p. 26).

Service Provider Knowledge

(See Objective 2.3)



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Appendix A

Data Cleaning and Coding Manual

Action	Rationale
Q3, 2008-09	
1. Duplicate records 1082, 1199 (18 mos ASQ) Deleted Record 1199, comments retained	Two surveys completed within 3 weeks of each other, one by Children's CARE, one by Wellness Services
2. Duplicate records 316, 429 (24 mos ASQ) Deleted record 429 comments retained	Both ASQs completed by Parents as Teachers staff within 3 weeks of each other
3. Duplicate records 1141, 1317 (36 mos. ASQ) Record 1317 deleted, comments retained	ASQ repeated 6 weeks later by Children's CARE
4. <u>Triplicate</u> records 68, 366, 439 (18 mos. ASQ) Record 366, 439 deleted, comments combined and retained. Note: Scores from subsequent ASQs not transferred	ASQs completed by at community-based screening, wellness services and CH Home visitation (Raymond)
5. Duplicate records 1084, 535 (27 mos. ASQ) Deleted record 1084	Duplicate info Parent Link Centre x 2
6. Duplicate records 645, 655 (18 mos. ASQ) Deleted record 645	Duplicate records two different agencies PHNs & Home Visitation
7. Duplicate records 867, 1077 (18 mos. ASQ) Deleted record 867	Duplicate records completed by Wellness Services and CH Home Visitation within 6 weeks of each other
8. Duplicate records 11 & 603 (24 mos. ASQ) Deleted record 603	Completed by PAT and Children's CARE
9. Duplicate records 157 & 158 (20 mos. ASQ) Deleted 158	Duplicate info. CARE x 2
10. Duplicate Records 682, 786 (24 month ASQ). Deleted 786. Changed other from "9999" to "1" as other concerns mentioned.	Duplicates completed within 7 days Wellness, Parents as Teachers
11. Duplicate records 12, 269 Deleted record #12	Duplicates Wellness, Community-based screening
12. Duplicate records 947, 1184 (18 mos. ASQ) Deleted #1184	Duplicates Wellness, Home Visitation completed within 2 weeks of each other.
13. Duplicates 270, 442 (18 mos. ASQ)	Duplicates Wellness, Home Visitation within 3 weeks of each



Action	Rationale
Deleted 270	other.
14. Duplicates 309, 532 (22 mos. ASQ) Deleted 309	Duplicates, Wellness, CARE services . CARE ASQ completed 2 weeks shy of 24 mos ASQ.
15. Duplicates 1123, 1364 (18 mos ASQ) Delete 1364	Duplicates 2 mos apart, 18 mos completed for both. Parent Link & Wellness Services
16. Duplicates 611, 444 Deleted 444	Duplicates community based screening, Home Visitation
Q4, 2008-09	
17. Duplicates 1411, 1661 (22 mos. ASQ) Deleted 1661	Duplicate Wellness Services x 2
18. Duplicates 1420, 1602 Deleted 1420	Duplicates Wellness Services, Community Based Screening (2 weeks apart)
19. Duplicates 1160, 1533 (18 mos ASQ) Deleted 1533	Duplicate Wellness Services x 2
20. Duplicates 864, 674 Deleted 864	Duplicates Home Visitation, Wellness Services (3 days apart)
21. Duplicates 1417, 1435 (20 mos. ASQ) Delete 1417	Duplicates Parent Link Centre, Wellness Services
22. Duplicates 207, 512 (33 mos. ASQ) Deleted 207	Duplicates Children's CARE Services x2
23. Duplicates 6, 7 Deleted #7	<u>Data entry error #7</u> – record eliminated
24. Duplicates 1346, 1541 (18 mos. ASQ) Deleted 1541	Duplicates Parent, Link, Wellness Services
25. Duplicates 1410, 1538 (20 mos. ASQ) Deleted 1538	Duplicates Wellness Services x2
26. Duplicates 1437, 1564 Deleted 1564	Duplicates Parent Link, Community-based screening
27. Duplicates 35, 1662 (18 mos. ASQ) Deleted 1662	Duplicates Children's CARE & 9999 – 9999 file contained no data
28. Duplicates 1136, 1605 (36 mos. ASQ) Deleted 1605	Duplicates Parent Link Centre, Community-based screening
Q1 2009-10	
29. Duplicates 1894, 2014 (36 mos. ASQ) Deleted 1894	Administering agency Community-based screening & Home visitation
30. Duplicates 1276, 1916 (36 mos) Deleted 1916	Administering agencies Parents as Teachers x2



Action	Rationale
31. Duplicates 2010, 2120 Delete 2120	Administering Agencies Home Visitation & Wellness Services
32. 1831, 1988 (18 mos) Delete 1988	Administered by Wellness Services x 2
33. 1990, 2171 (24 mos) Deleted 2171 (1990 referral initiated)	Administering agencies Wellness Services & CARE
Q2 2009-10	
34. Duplicates 1779, 2231 Deleted 2231 (Referral initiated 1779)	Administering agencies Wellness Services and Children's CARE services (within 1 week)
35. Duplicates 2249, 2327 (18 mos) Deleted 2327	Administering agency Wellness Services x2 (within 2 weeks)
36. Duplicates 2275, 2421 (18 mos) Deleted 2275 (Comments retained)	Administering agency Wellness Services x2



Appendix B

Website Dashboard



Placeholder

Appendix C

Ages and Stages Completion by Residence

Ages and Stages Questionnaires by Residence		2008-09			2009-10	
Location	Q2 n=331	Q3 n=376	Q4 n=449	Q1 n=484	Q2 n=293	
Lethbridge	55.2% (186/327)	47.5% (160/337)	48.1% (212/441)	52.4% (247/471)	55.6% (160/288)	
Total Urban	55.2% (186/327)	47.5% (160/337)	48.1% (212/449)	52.4% (247/471)	55.6% (160/288)	
Fort McLeod, Standoff, Monarch, Nobleford	7.6% (25/327)	0% (0/337)	0% (0/441)	0% (0/471)	0% (0/288)	
Blairmore, Coleman, Lundbreck, Pincher Creek	na	6.5% (22/337)	2.3% (10/441)	4.0% (19/471)	3.5% (10/288)	
Taber	9.5% (31/327)	12.5% (42/337)	8.8% (39/441)	5.7% (27/471)	8.3% (24/288)	
Coaldale	4.9% (16/327)	10.7% (36/337)	14.1% (62/441)	16.3% (77/471)	9.7% (28/288)	
Raymond/Cardston	-	-	-	-	10.4% (30/288)	
Other rural*	21.1% (69/327)	22.8% (77/337)	26.8% (118/441)	21.4% (101/471)	12.5% (36/288)	
Total Rural	43.1% (141/327)	52.5% (177/337)	51.9% (229/441)	47.6% (224/471)	44.4% (128/288)	
Out of region	2	10	0	-		
Missing data/out of region	2	29	8	13	5	

Source: GAWM Master Spreadsheet

* Includes: Barnwell, Blairmore, Coleman, Coutts, Del Bonitam, Enchant, Grassy Lake, Lundgreck, Magrath, Milk River, New Dayton, Picture Butte, Pincher Creek, Shaughnessey, Stirling, Vauxhall, Wamer, (Raymond, Cardston tabulated separately Q2, 09-10)



Appendix D

1) GAWM delay severity cutoff scores, Oct. 2008

18 Month	No Delay	Mild-Moderate	Severe	27 Month	No Delay	Mild-Moderate	Severe
Communication	24-60	10-23	0-9	Communication	34-60	25-33	0-24
Gross Motor	42-60	35-41	0-34	Gross Motor	36-60	27-35	0-26
Fine Motor	40-60	33-39	0-32	Fine Motor	27-60	15-26	0-14
Problem-Solving	34-60	26-33	0-25	Problem-Solving	38-60	30-37	0-29
Personal Social	38-60	30-37	0-29	Personal Social	34-60	26-33	0-25
20 Month	No Delay	Mild-Moderate	Severe	30 Month	No Delay	Mild-Moderate	Severe
Communication	37-60	26-36	0-25	Communication	39-60	31-38	0-30
Gross Motor	37-60	27-36	0-26	Gross Motor	31-60	21-30	0-20
Fine Motor	40-60	33-39	0-32	Fine Motor	26-60	13-25	0-12
Problem-Solving	30-60	21-29	0-20	Problem-Solving	29-60	18-28	0-17
Personal Social	36-60	27-35	0-26	Personal Social	37-60	30-36	0-29
22 Month	No Delay	Mild-Moderate	Severe	33 Month	No Delay	Mild-Moderate	Severe
Communication	36-60	23-35	0-22	Communication	36-60	27-35	0-26
Gross Motor	41-60	34-40	0-33	Gross Motor	42-60	35-41	0-34
Fine Motor	37-60	30-36	0-29	Fine Motor	30-60	18-29	0-17
Problem-Solving	37-60	30-36	0-29	Problem-Solving	37-60	29-36	0-28
Personal Social	40-60	33-39	0-32	Personal Social	37-60	28-36	0-27
24 Month	No Delay	Mild-Moderate	Severe	18 Month	No Delay	Mild-Moderate	Severe
Communication	38-60	26-37	0-25	Communication	39-60	31-38	0-30
Gross Motor	37-60	27-36	0-26	Gross Motor	36-60	27-35	0-26
Fine Motor	37-60	29-36	0-28	Fine Motor	31-60	20-30	0-19
Problem-Solving	33-60	24-32	0-23	Problem-Solving	39-60	31-38	0-30
Personal Social	36-60	28-35	0-27	Personal Social	39-60	32-38	0-31

ASQ Risk Indicators by Score (M. Moland, personal communication, 09/10/2008)



2. ASQ Updates. Revised Mean, SD, and Cutoff Points for Selected ASQ Intervals

Interval	Communication			Gross Motor			Fine Motor			Problem-solving			Personal Social		
	Mean	SD	Cutoff point	Mean	SD	Cutoff point	Mean	SD	Cutoff point	Mean	SD	Cutoff point	Mean	SD	Cutoff point
18	41	14	23	56.5	7.5	41.5 *	54.5	7.5	39.5 *	49	8	33	52	7.5	37
22	50	12.5	35	54	7	40	51.5	7.5	36.5 *	51.5	7.5	36.5 *	53.5	7	39.5 *
27	51.5	9	33.5 *	53	9	35	49	11.5	26	53	8	37	49	8	33
33	52	8.5	35	55.5	7	41.5*	52	11.5	29	53.5	8.5	36.5*	53	8.5	36

Source: Bricker & Squires (n.d.) Retrieved July 3, 2009 from the Brookes Publishing Web site: <http://www.brookespublishing.com/asqupdates/cutoff.htm>

* Areas of discrepancy with current GAWM Project severity cutoff score



Appendix E
Capacity Building Report



Placeholder