

OMA Child Health Committee

Improving early childhood development – part I:

proposed enhancements to the 18-month well baby visit, and the critical role of the primary care physician in child development

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The OMA Child Health Committee has prepared a two-part series highlighting proposed enhancements to components of the 18-month well baby visit, as well as an overview of the critical role of primary care physicians in early childhood development. Part II of this series, which focuses on child literacy, appears on p. 43 of this issue.

Background

Tracing the history of our progress in understanding the “new neuroscience” since Watson and Crick discovered the structure of DNA in 1953 is an interesting and exciting story. This initial discovery set us on a path of exploring how genes are regulated, how proteins in cells are turned on and off, and how this translates into the actual functioning of cells.¹

More recently, the nurture or “experience” side of the genetic/nurture equation has weighed in with the discoveries that development turns genes and proteins on and off, and this ultimately sets the neurodevelopmental profile for the individual.

It is this intellectual framework of understanding that has transformed our thinking, and impacted on how we are now attempting to educate parents around the incredible influ-

ence they have over the development of their children, and to design systems of supports for families and young children to enhance this very development.

The family physician’s role in tailoring interventions to meet this new approach now includes more than the “early identification of abnormality” in the young child. With infectious diseases waning in incidence (related to immunization and other public health measures), the focus has broadened to include preventive and proactive activities of engaging parents and young children in healthy experiences both in their homes and their “tiny” communities.

The work of Dr. Fraser Mustard outlined in his seminal report, “Reversing the Real Brain Drain: Early Years Study,”² identified the need for improvements in the early years envi-

ronments for Canadian children if we are to have each child meet his or her potential, and improve the human capital at a population level to face the challenges of this millennium.

Dr. Mustard proposed early child development and parenting centres linked to the school system and available to all families and young children. These centres are designed to support early brain development.

The school-based centres are the hub of an integrated community network of programs, resources, and supports. These centres allow parents to “practise” parenting by “doing,” promote positive parenting, offer a venue for play-based peer learning, and connect parents to the community and to each other.

The importance of the early years and their impact on long-term health, behaviour, and learning, has been repeatedly stressed. The reach of the experiences of the early years, through the trajectories on which children are set, appears to be a lifelong influence, and increases the importance of reassessing the effectiveness and evidential basis of all “systems” that interface with young children and their parents.

Currently, much information is available at the population level about children in Canada in terms of their readiness to learn. Through the

use of the Early Development Instrument (EDI), which is currently being used in Ontario and a number of other provinces (approximately 400,000 results to date), we are able to describe the populations' preparedness for school at the end of kindergarten through standardized kindergarten teacher reporting.

With some variation across communities, there are still some substantial portions of our young population (25 per cent to 40 per cent) who are not as prepared for school as they should be or could be.

The traditional measures of infant mortality, per cent of low birth weight, etc., no longer describe the population quality in an adequate or meaningful enough way, and we are turning to the broad determinants of health (poverty, literacy,³ educational levels) to describe the health of populations.

Primary care practitioner's role

In order to address the experiences of infants and young children, the provision of health-care services through primary care practitioners (family physician, primary care pediatrician, nurse practitioner) is pivotal.

Families trust their doctor, and the sustained relationship with many families places the physician in a trusted and unique position.

The physician usually has an understanding of the socioeconomic and emotional environment of the family, the temperament of the child, the parenting style, and other stressors in the family that are present. But primary care practitioners are stretched in many directions these days, and the "healthy" populations of young children they see, in the traditional sense, has meant a diversion of primary care energy to the "sick" patients of their practice.

In the face of the new neuroscience, and in an effort to ensure that we refocus some of this energy, a group of physicians discussed at length a proposal to enhance the 18-month well baby visit.

The 18-month visit is one of the last visits coupled to immunization

before the children and families disappear into the "black hole" of childhood, resurfacing usually only for episodic visits.

At 18 months, the motor milestones are clear, speech and language signals are present, and the more subtle and later onset abnormalities begin to become evident (e.g., autism, autism spectrum disorder.)

Further, it is a time when parents are through the earliest parenting issues of sleep and feeding, and are beginning to experience the problems of an independent toddler. Many parents are back at work, are looking for guidance as they explore their child care arrangements, and struggling with day-to-day worries of their very busy/burdened lives.

The expectations for the family physician for an enhanced visit to address these challenges cannot be covered in a standard time allocation.

Ontario's Best Start Strategy

Against this background, the provincial government in Ontario established a Best Start Strategy,⁴ which is designed to reinforce healthy development, early learning, and child care services during a child's first years. This is to be achieved by strengthening the early and ongoing screening of Ontario's children to identify potential issues, needs and risks, and by integrating pre-school, junior kindergarten, senior kindergarten, quality child care, public health and parenting programs into a seamless system that supports families and children.

The vision of Best Start is that early learning and care hubs are centrally established in Ontario's communities to provide families with a single, integrated, seamless point of access to services and supports based on local needs and available resources.

The Best Start Strategy also struck an expert panel to further develop an enhanced 18-month well baby visit, and improve the quality of the interface between the primary care provider, the community, and the young child and his or her family at 18-months of age (see p. 38).

The complexity of the environment from the primary care provider's point of view, with the availability of the many developmental scales, tools, and specialized records, has proved confusing. Further, the vast array of community services targeted at the early years has grown, and the quality and effectiveness has been variable.

Parents have repeatedly reported turning to their family physicians for developmental review, behavioural guidance, and basic health care, while surveyed family practice residents complain of being ill-prepared and uncertain about parenting and community services.

The expert panel met and deliberated over a year to develop a system for Ontario's children, beginning with a focus on the 18-month well baby visit. The report, entitled "Getting It Right at 18 Months...Making it Right for a Lifetime,"⁵ is available on the website of the Ontario College of Family Physicians (www.ocfp.on.ca).

The report focuses on providing parents and primary care providers with tools to support an enhanced 18-month well baby visit. It also stresses the value of effective partnerships between parents and the community. Physicians are encouraged to emphasize the importance of these partnerships with families, and to advise parents to become knowledgeable of their local community resources.

The report recommends that the province and professional and academic institutions provide information, education and support for primary care providers. Suggestions are also made for developing a component of the system to describe the developmental status of 18-month-olds at a population level, and for evaluating the proposed system.

The 18-month enhanced well baby visit

The recommended system includes the parents and young child being screened by the 18-month "Nipissing District Developmental Screen" (see p. 39), which is already in broad use across Ontario.

This screen is a checklist designed to monitor a child's progress, and is

Improving Childhood Development

filled out by the parent. There are 17 items spanning gross and fine motor skills, communication, speech and language, cognition and emotional domains. The screen has been validated and is supported across the developmental community as a reasonable tool to support and encourage parent understanding of development.

The other useful part of the tool includes prompts for age-appropriate "activities for your child." A variety of other similar age-appropriate sheets are available, however, it is hoped that the enhanced system will initially focus on the 18-month age. The tools for other ages will become part of the developmental lexicon for the parent and primary care practices. The tool is to be made widely available in all venues frequented by young families and 18-month-olds (e.g., libraries, day cares, family physician offices, recreation facilities, etc.).

When the child is seen in the physician's office, a "point-of-prompt" record, i.e. the Rourke Baby Record (see pp. 40-41), which aligns with the Nipissing screen, is to be used to ensure that physicians not only provide the usual history, physical, and immunization, but also an enhanced focus on neurodevelopment, parenting, child care, and literacy.

In improving the experience for all children (i.e. a universal approach), a discussion by the family physician stressing the importance of, and the linkage to, early years community services is critical. This would include public health Healthy Babies Healthy Children programs, the Early Years Centres, speech and language services, parent talk lines, recreation programs, parenting programs, etc.

The recently revised Rourke Baby Record was reviewed by the expert panel and adopted as the recommended point-of-prompt record because of its quality, extensive acceptance and use in Ontario, alignment with the Nipissing tool, and electronic availability.

Point of prompt records or checklists have been shown to help physi-

cians remember important visit content and improve quality of visits.

The need for all within the system to work together to ensure that appropriate time is allocated to this enhanced visit is important. This includes not only the scheduling within primary care offices, but sufficient payment and incentives to ensure uptake of these critical components of the proposed enhanced system.

A clinical standards guideline in support of this initiative is being developed under the auspices of the Ontario College of Family Physicians.

Following is a brief summary of important features of the revised 18-month well baby visit:

1. Use the Rourke Baby Record to screen for developmental delay.
2. Ask parents about concerns regarding child.
3. Assess state of parent-child interaction, including discipline techniques.
4. Promote reading whenever possible.
5. Become familiar with community resources.

Pilot projects are being developed to test the feasibility and challenges with implementation of this enhanced approach, and physician acceptance and enthusiasm for the importance of this initiative has been encouraging.

The population measurement of the developmental status of 18-month-olds in the province is a challenging component of the project, but clearly it is important to identify how we are faring with respect to development and preparation of our children for the challenges of the future — academically, behaviourally, and for long-term health.

Conclusion

Due to their background and knowledge, as well as their connection to young children and families, primary care practitioners have a critical role to play in ensuring that all children meet their developmental potential.

Although quality visits at all ages and stages of early development are important, this initiative is aimed at improving the 18-month visit for all

children, and their families, by developing an enhanced systematic approach to support parents and primary care practitioners through tools, education and other incentives.

The credibility of the physician (and the other primary care providers), armed with more understanding and knowledge of early years community resources, could ensure the improved early childhood experiences that are known to improve a child's learning, behaviour and health.

Parents are front and centre in this process, but physician support and guidance for parents is paramount.

OMR

References

1. Kandel ER. Essay: the new science of mind: A forecast of the major problems scientists need to solve. *Sci Am Mind* 2006 Apr; 62- 69.
2. McCain M, Mustard JF. Reversing the Real Brain Drain: Early Years Study — final report. Toronto, ON: Canadian Institute for Advanced Research; 1999 Apr. p. 31.
3. Literacy and Health in Canada: Perspectives from the Second Canadian Conference on Literacy and Health. *Can J Public Health* 2006 May-Jun; 97(3 Suppl 2). Available from: http://www.cpha.ca/shared/cjph/archives/CJPH_97_Suppl_2_e.pdf. Accessed: 2006 Oct 23.
4. Ontario. Ministry of Children and Youth Services. Early Years Programs Branch. Best Start. Toronto, ON: Ontario Ministry of Children and Youth Services [updated 2006 Sep 29; accessed 2006 Oct 23]. Available from: <http://www.children.gov.on.ca/CS/en/programs/BestStart/default.htm>.
5. Ontario Children's Health Network; Ontario College of Family Physicians. Getting it Right at 18 Months ... Making it Right for a Lifetime: report of the expert panel on the 18-month well baby visit. Toronto, ON: Ontario College of Family Physicians; 2005 Sep. Available from: <http://www.ocfp.on.ca/local/files/CME/Research/FinalRpt-18MonthPrjct.pdf>. Accessed: 2006 Oct 23.

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Nipissing District Developmental Screen

Nipissing District Developmental Screen™

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ACTIVITIES FOR YOUR CHILD...

- Emotional
- Self-Help
- Social
- Large Muscle
- Learning/Thinking
- Speech/Language

The following activities will help you play your part in your child's development.

A B C Help me to notice familiar sounds, such as birds chirping, car or truck motors, airplanes, dogs barking, sirens, or splashing water. Imitate the noise you hear and see if I will imitate you. Encourage me by smiling and clapping.

👁️ I am learning new words every day. Play games to help me learn the names of things. Put pictures of familiar things such as toy animals, people or objects in a bag and say "One, two, three, what do we see?" and pull a picture from the bag.

👁️ Pretend to talk to me on the phone or encourage me to call someone. Don't be afraid to let me see what I can do with my body. I need to practise climbing, swinging, jumping, running, going up and down stairs, and going down slides. Stay close to me so I don't get hurt.

👁️ Play some of my favorite music. Encourage me to move to the music by swaying my arms, moving slowly, marching to the music, hopping, clapping my hands, tapping my legs, etc. Let's have fun doing actions while listening to the music.

👁️ Let me play with balls of different sizes. Take some of the air out of a beach ball. Watch me kick, throw, and try to catch it.

👁️ I like toys that I can pull apart and put back together: large "LEGO", containers with lids, or plastic links. Talk to me about what I am doing using words like "push" and "pull".

👁️ I'm not too little to play with large crayons. Let's scribble and talk about our art work.

A B C I like simple puzzles with two to four pieces and shape-sorters with simple shapes. Encourage me to match the pieces by taking turns with me.

👁️ I want to do things just like you. Let me have toys so I can pretend to dress up, have tea parties, and play mommy or daddy.

👁️ I feel safe and secure when I know what is expected of me. You can help me with this by following routines and setting limits. Praise my good behaviour.

👁️ I like new toys so find the local toy lending library or play groups in our community.

I enjoy exploring the world but I need to know that you are close by. I may cry when you leave me with others, so give me a hug and tell me you will be back.

Always talk to your health care or child care professional if you have any questions about your child's development or well being. See reverse side for instructions, limitation of liability, and product license.

Child's Name _____
 Birth Date _____ Today's Date _____

Nipissing District Developmental Screen™

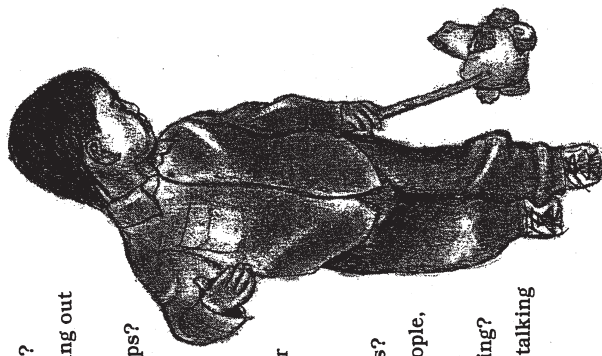
Nipissing, Nipissing District Developmental Screen, and NIDS are trademarks of NIDS IP Holdings, used under license. All rights reserved.

The Nipissing District Developmental Screen™ is a checklist designed to help monitor your child's development.

Yes No

By Eighteen Months of age, does your child...

1. Identify pictures in a book (e.g. "Show me the baby")?
2. Use familiar gestures (e.g. waving, pushing away)?
3. Follow directions when given without gestures (e.g. "Throw me the ball", "Bring me your shoes")?
4. Use common expressions (e.g. "all gone" or "oh-oh")?
5. Point to at least three different body parts when asked (e.g. "Where is your nose")?
6. Say five or more words? (Words do not have to be clear.)
7. Hold a cup to drink?
8. Pick up and eat finger food?
9. Help with dressing by putting out arms and legs?
10. Crawl or walk up stairs/steps?
11. Walk alone?
12. Squat to pick up a toy without falling?
13. Push and pull toys or other objects while walking (Picture A)
14. Stack three or more blocks?
15. Show affection towards people, pets or toys?
16. Point to show you something?
17. Look at you when you are talking or playing together?



* item may not be common to all cultures

18 MONTHS

For additional screens or to discuss results call Toronto Health Connection at 416-338-7600 and ask to speak to the Nurse.

Always talk to your health care or child care professional if you have any questions about your child's development or well being. See reverse side for instructions, limitation of liability, and product license.

Rourke Baby Record

Drs. Leslie Rourke, Denis Leduc and James Rourke
 Revised May 2006
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Rourke Baby Record: EVIDENCE-BASED INFANT/CHILD HEALTH MAINTENANCE GUIDE IV

Birth Date (d/m/yr): _____

NAME: _____

M [] F []

Past problems/Risk factors:	Family history:							
DATE OF VISIT	18 months			2-3 years			4-5 years	
GROWTH*	<i>Height</i>	<i>Weight</i>	<i>Head circ.</i>	<i>Height.</i>	<i>Weight</i>	<i>Head circ.</i> -if prior abnormal	<i>Height</i>	<i>Weight</i>
PARENTAL CONCERNS								
NUTRITION*	<input type="checkbox"/> Breastfeeding* <input type="checkbox"/> Homogenized milk <input type="checkbox"/> No bottles			<input type="checkbox"/> Homogenized or 2% milk <input type="checkbox"/> <i>Gradual transition to lower fat diet*</i> <input type="checkbox"/> Canada's Food Guide*			<input type="checkbox"/> 2% milk <input type="checkbox"/> Canada's Food Guide*	
EDUCATION AND ADVICE	Injury Prevention <input type="checkbox"/> Car seat (child)* <input type="checkbox"/> <i>Bath safety**</i> <input type="checkbox"/> Choking/safe toys*							
	Behaviour <input type="checkbox"/> Parent/child interaction <input type="checkbox"/> Discipline/Limit setting**							
	Family <input type="checkbox"/> Parental fatigue/stress/depression** <input type="checkbox"/> High-risk children**							
	Other <input type="checkbox"/> Socializing/peer play opportunities <input type="checkbox"/> Dental Care/Dentist* <input type="checkbox"/> Toilet learning**							
√ discussed and no concerns X if concerns	<input type="checkbox"/> Car seat (child/booster)* <input type="checkbox"/> Carbon monoxide/Smoke detectors*							
	<input type="checkbox"/> <i>Bike Helmets*</i> <input type="checkbox"/> Matches <input type="checkbox"/> Firearm safety/removal* <input type="checkbox"/> Water safety							
	<input type="checkbox"/> Parent/child interaction <input type="checkbox"/> Parental fatigue/depression**							
	<input type="checkbox"/> Discipline/Limit setting** <input type="checkbox"/> Family conflict/stress <input type="checkbox"/> High-risk children** <input type="checkbox"/> Siblings							
	<input type="checkbox"/> Second-hand smoke* <input type="checkbox"/> <i>Complementary/alternative medicine*</i> <input type="checkbox"/> Active healthy living/media use*							
	<input type="checkbox"/> Dental cleaning/Fluoride/Dentist* <input type="checkbox"/> Toilet learning** <input type="checkbox"/> Socializing opportunities <input type="checkbox"/> Encourage reading**							
	<input type="checkbox"/> Assess day care /preschool needs/school readiness** Environmental health including: <input type="checkbox"/> Sun exposure/sunscreens/insect repellent* <input type="checkbox"/> <i>Pesticide exposure*</i> <input type="checkbox"/> <i>Check serum lead if at risk*</i>							
DEVELOPMENT** <i>(Inquiry and observation of milestones)</i> Tasks are set after the time of normal milestone acquisition. Absence of any item suggests the need for further assessment of development. NB-Correct for age if < 36 weeks gestation √ if attained X if not attained	Social/Emotional <input type="checkbox"/> Child's behaviour is usually manageable <input type="checkbox"/> Usually easy to soothe <input type="checkbox"/> Comes for comfort when distressed			2 years <input type="checkbox"/> At least 1 new word/week <input type="checkbox"/> 2-word sentences <input type="checkbox"/> Tries to run <input type="checkbox"/> Puts objects into small container <input type="checkbox"/> Copies adult's actions <input type="checkbox"/> Continues to develop new skills <input type="checkbox"/> No parent concerns			4 years <input type="checkbox"/> Understands related 3-part directions and shapes <input type="checkbox"/> Asks lots of questions <input type="checkbox"/> Stands on 1 foot for 1-3 seconds <input type="checkbox"/> Draws a person with at least 3 body parts <input type="checkbox"/> Toilet trained during the day <input type="checkbox"/> Tries to comfort someone who is upset <input type="checkbox"/> No parent concerns	
	Communication Skills <input type="checkbox"/> Points to 3 different body parts <input type="checkbox"/> Tries to get your attention to see something of interest <input type="checkbox"/> Pretend play with toys and figures (e.g. feeds stuffed animal) <input type="checkbox"/> Turns when name is called <input type="checkbox"/> Imitates speech sounds regularly <input type="checkbox"/> Produces 3 consonants, e.g. P M B W H N			3 years <input type="checkbox"/> Understands 2 step direction <input type="checkbox"/> Twists lids off jars or turns knobs <input type="checkbox"/> Turns pages one at a time <input type="checkbox"/> Shares some of the time <input type="checkbox"/> Listens to music or stories for 5-10 minutes with adults <input type="checkbox"/> No parent concerns			5 years <input type="checkbox"/> Counts to 10 and knows common colours and shapes <input type="checkbox"/> Speaks clearly in sentences <input type="checkbox"/> Throws and catches a ball <input type="checkbox"/> Hops on 1 foot <input type="checkbox"/> Shares willingly <input type="checkbox"/> Works alone at an activity for 20-30 minutes <input type="checkbox"/> Separates easily from parents <input type="checkbox"/> No parent concerns	
PHYSICAL EXAMINATION Evidence-based screening for specific conditions is highlighted, but an appropriate age-specific focused physical examination is recommended at each visit.	<input type="checkbox"/> <i>Eyes (red reflex)*</i> <input type="checkbox"/> <i>Corneal light reflex/Cover-uncover test and inquiry*</i> <input type="checkbox"/> Hearing inquiry <input type="checkbox"/> Tonsil size/Teeth*			<input type="checkbox"/> <i>Blood pressure</i> <input type="checkbox"/> <i>Eyes (red reflex)/Visual acuity *</i> <input type="checkbox"/> <i>Corneal light reflex/Cover-uncover test and inquiry*</i> <input type="checkbox"/> Hearing inquiry <input type="checkbox"/> Tonsil size/Teeth*			<input type="checkbox"/> <i>Blood pressure</i> <input type="checkbox"/> <i>Eyes (red reflex)/Visual acuity*</i> <input type="checkbox"/> <i>Corneal light reflex/Cover-uncover test and inquiry*</i> <input type="checkbox"/> Hearing inquiry <input type="checkbox"/> Tonsil size/Teeth*	
PROBLEMS AND PLANS								
IMMUNIZATION Provincial guidelines vary Signature	Record on Guide V: Immunization Record			Record on Guide V: Immunization Record			Record on Guide V: Immunization Record	

Grades of evidence: (A) **Bold type – Good evidence** (B) *Italic – Fair evidence* (C) Plain – Consensus with no definitive evidence

(*) see Infant/Child Health Maintenance: Selected Guidelines on reverse of Guide I (***) see Healthy Child Development Selected Guidelines on reverse of Guide IV

Disclaimer: Given the constantly evolving nature of evidence and changing recommendations, the Rourke Baby Record: EB is meant to be used as a guide only.

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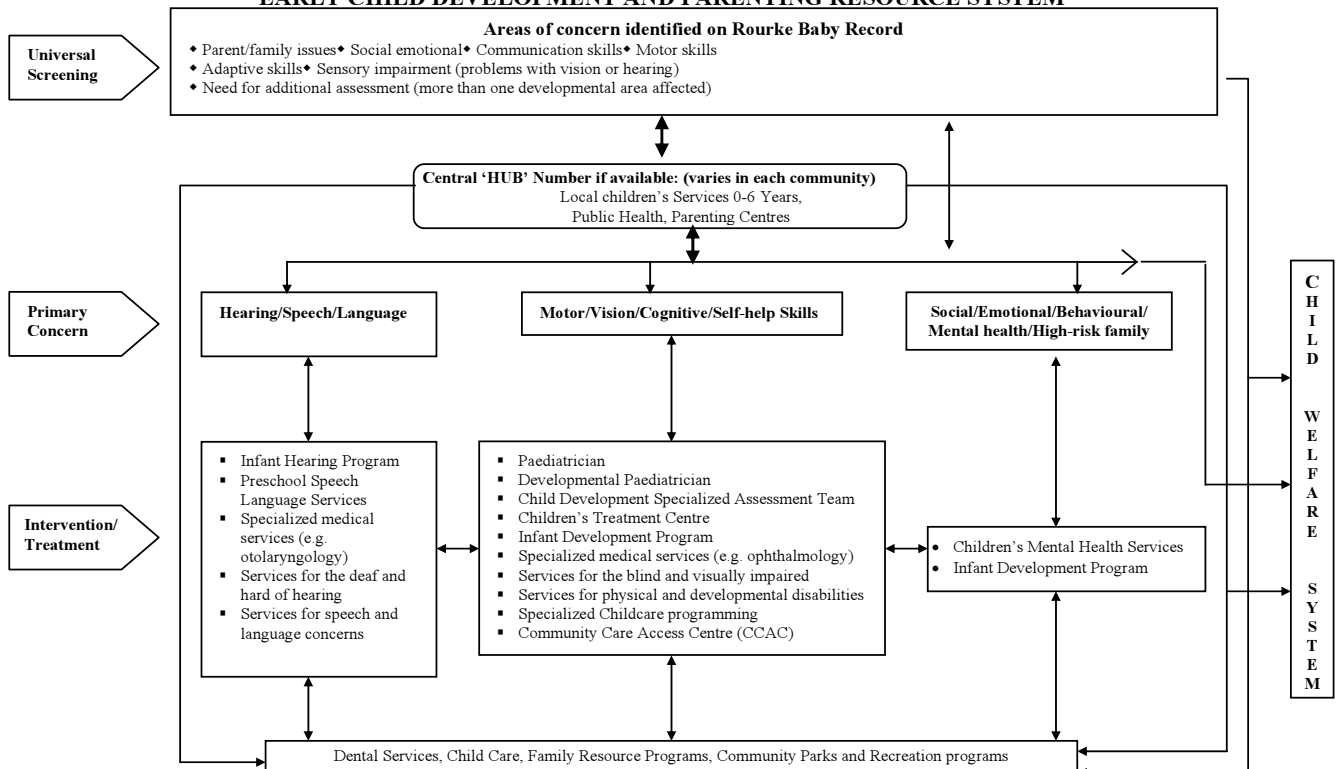
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Rourke Baby Record (continued)

ROURKE BABY RECORD HEALTHY CHILD DEVELOPMENT SELECTED GUIDELINES/RESOURCES - May 2006

<p>DEVELOPMENT</p> <p>Maneuvers are based on the Nipissing District Development Screen (www.ndds.ca) and other developmental literature. They are not a developmental screen, but rather an aid to developmental surveillance. They are set after the time of normal milestone acquisition. Thus, absence of any one or more items is considered a high-risk marker and indicates the need for further developmental assessment, as does parental concern about development at any stage.</p> <ul style="list-style-type: none"> - "Best Start" website contains resources for maternal, newborn, and early child development - www.beststart.org/ - OCFP Healthy Child Development: Improving the Odds publication is a toolkit for primary healthcare providers - www.beststart.org/resources/hlthy_chld_dev/pdf/HCD_complete.pdf 	<p>PARENTAL/FAMILY ISSUES AFFECTING DEVELOPMENT</p> <ul style="list-style-type: none"> • Maternal depression - Physicians should have a high awareness of maternal depression, which is a risk factor for the socioemotional and cognitive development of children. Although less studied, paternal factors may compound the maternal-infant issues. <ul style="list-style-type: none"> - www.cps.ca/english/statements/PP/pp04-03.htm • Shaken baby syndrome - A high index of suspicion is suggested. <ul style="list-style-type: none"> - www.cps.ca/english/statements/PP/cps01-01.htm • Fetal alcohol syndrome/effects (FAS/FAE) - Canadian Guidelines published in CMAJ supplement <ul style="list-style-type: none"> - Mar. 1/05 - www.cmaj.ca/cgi/content/full/172/5_suppl/S1
<p>BEHAVIOUR</p> <p>Night waking/crying:</p> <p>Night waking/crying occurs in 20% of infants and toddlers who do not require night feeding. Counselling around positive bedtime routines (including training the child to fall asleep alone), removing nighttime positive reinforcers, keeping morning awakening time consistent, and rewarding good sleep behaviour has been shown to reduce the prevalence of night waking/crying, especially when this counselling begins in the first 3 weeks of life.</p> <ul style="list-style-type: none"> - www.mja.com.au/public/issues/182_05_070305/sym10800_fm.html 	<p>High-risk infants/children</p> <ul style="list-style-type: none"> - Day Care: Specialized day care or preschool is beneficial for children living in poverty (family income at or below Statistics Canada low-income cut-off). These disadvantaged children are at an increased risk of mortality and morbidity, including physical, emotional, social and education deficits. - Home Visits: There is good evidence for home visiting by nurses during the perinatal period through infancy for first-time mothers of low socioeconomic status, single parents or teenaged parents to prevent physical abuse and/or neglect. Canadian Task Force on Preventative Health Care - www.cmaj.ca/cgi/content/full/163/11/1451
<p>PARENTING/DISCIPLINE</p> <p>Promote effective discipline through evaluation, anticipatory guidance and counseling using the following principles: respect for parents, cultural sensitivity, improving social supports, increasing parental confidence, increasing parental pleasure in children, and supporting and improving parenting skills.</p> <ul style="list-style-type: none"> - www.cps.ca/english/statements/PP/pp04-01.htm - OCFP Healthy Child Development www.beststart.org/resources/hlthy_chld_dev/pdf/HCD_complete.pdf (section 3) 	<p><i>Risk factors for physical abuse:</i></p> <ul style="list-style-type: none"> • low SES • young maternal age (< 19 years) • single parent family • parental experiences of own physical abuse in childhood • spousal violence • lack of social support • unplanned pregnancy or negative parental attitude towards pregnancy
<p>TOILET LEARNING</p> <p>The process of toilet learning has changed significantly over the years and within different cultures. In Western culture, a child-centred approach, where the timing and methodology of toilet learning is individualized as much as possible, is recommended.</p> <ul style="list-style-type: none"> - www.cps.ca/english/statements/CP/cp00-02.htm 	<p><i>Risk factors for sexual abuse:</i></p> <ul style="list-style-type: none"> • living in a family without a natural parent • growing up in a family with poor marital relations between parents • presence of a stepfather • poor child-parent relationships • unhappy family life
<p>LITERACY</p> <p>Physicians can promote literacy and early childhood reading by facilitating reading in the office. Encourage parents to watch less television and read more to their children.</p> <ul style="list-style-type: none"> - www.cps.ca/english/statements/PP/pp02-01.htm 	
<p>AUTISM SPECTRUM DISORDER</p> <p>When developmental delay is suspected in an 18-month child, assess for autism spectrum disorder using the Checklist for Autism in Toddlers (CHAT) – Journal of Autism and Developmental Disorders 2001;31(2).</p> <ul style="list-style-type: none"> - www.beststart.org/resources/hlthy_chld_dev/pdf/HCD_complete.pdf (appendix L) 	

EARLY CHILD DEVELOPMENT AND PARENTING RESOURCE SYSTEM



OMA Child Health Committee

Improving early childhood development – part II:

literacy, the primary care physician, and the enhanced 18-month well baby visit

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The OMA Child Health Committee has prepared a two-part series that highlights the critical role of the primary care physician in facilitating and promoting early childhood development. Part 1 focused on the enhanced 18-month well baby visit. Part 2, below, emphasizes the importance of preschool literacy in the primary care context.

Background

The new neuroscience and its implication for quality early childhood developmental experiences has been stressed across many cultures and much literature in recent years.

The success of a country is linked to its literacy level, and literacy levels are a population measure often used to compare countries, especially as a measure of school performance (e.g., Grade 3 language scores). Furthermore, literacy skills, as shown in recent studies, may predict health status even more accurately than education level, income, or socio-demographic variables.¹

How reading is learned

The ability to read (and the magical doors that open throughout one's life as a result of competency in this area) is rooted in early years experience.

Literacy levels are “spread” along a developmental continuum just like most other skills that are dependent initially on the traditional sensing pathway of hearing, vision, touch, fine motor, etc. It may also be that the same neurodevelopmental pathways that develop in the early years as a result of literacy skills are parallel to those which support good health.

Regardless, children acquire numerous and meaningful early literacy skills before they ever begin to read, and these are predictive of later accomplishments both in school and in adult life. Therefore, encouraging a mother or father to engage in reading with their child, in an atmosphere of enthusiasm, warmth and fun, is neurodevelopmentally a “full brain workout.”

Simply defined, reading is made up of two parts: decoding and com-

prehension. Decoding means cracking the code of a particular sound/letter system. It involves alphabet knowledge, phonological processing, and knowledge about print. Comprehension is tied to the components of language, such as morphology and syntax, vocabulary, and narrative ability. These areas are ones that researchers have identified as skills children need at specific developmental time points to progress as readers.

For example, English speakers (and readers) who are presented with a word in another language, using another symbol system (e.g., Chinese or Russian) would first have to “crack the code” of the letter-sound correspondence in the symbol system used in the unfamiliar language before being able to pronounce it. Once the English speakers were told what the word was, and had it repeated a number of times, they could probably say it themselves.

However, comprehension would still be impossible because the English speakers would not have the lexical repertoire to know what the word means; therefore, what they have read, with help, is still meaningless. Similarly, in English, readers need to know what the letter-sound correspondence of the English alphabet is, and then have the meaning of a word stored in their memory, in order to comprehend it.

Reading is an active, cognitive, social, and emotional process that is constructed from the meaning of text and pictures. Background knowledge and previous experiences are critical to the reading process because readers understand what they read or what is read to them as it relates to what they already know.

As discussed in Part I of this series (see pp. 35-41), the preparedness of children presenting to Grade 1 to begin their formal education leaves room for improvement, with 25 per cent to 45 per cent of children in some Ontario communities not being as well prepared as they should be (as measured currently by the Early Development Instrument).

Adult literacy results in Canada, based on the International Adult Literacy and Lifestyle Survey (May 2005),² showed 42 per cent of Canadians from age 16 to 65 had skills in the lowest two levels on the prose scale, indicating that they would have some difficulty in meeting everyday reading needs. Some would have difficulty with any printed materials, and others would require the material

to be simple and clearly laid out.

The economic costs of low literacy are also significant, with the burden being estimated at \$4 billion per year.³

What should physicians do?

The primary care practitioner's role in facilitating and promoting early child development is multifaceted. Clearly, physicians are in a perfect position to facilitate literacy by beginning with encouraging parents to read to their young children and preschoolers.

Familiarity with age-appropriate books from six months on is key. Some even suggest reading to the baby in utero.

The OMA Child Health Committee believes the promotion of pre-literacy skills to the parents of 18-month-olds at the well baby visit is an important health message. Also, promoting "quality reading" through specific instruction or demonstration, and encouraging parents to learn about story reading through Early Years Centres, libraries, or other programs, is advised.

The literacy chart reproduced on page 45 identifies skills that are devel-

oped through specific story-reading strategies. Physicians can use the chart to guide their teaching with parents, and provide information for parents to take home for reference.

What if parents are illiterate, or English isn't their first language?

All children should be developing a familiarity with language and books by 18 months, regardless of a parent's language or reading ability.

Parents should be encouraged to read books to their children in their first language, and if the parents themselves are illiterate, they can story-tell using rich language and picture books.

At the 18-month enhanced visit, the Nipissing District Developmental Screen (see Part I, p. 39), which is completed by the parent, contains six items focused on speech and language. This should stimulate conversation between physician and parent about language and preliteracy skills.

Strategies to promote literacy

Following are strategies for physicians to promote literacy in young children:

- Encourage parents to read to their young children from six months.
- Be aware of resources for parents.
- Address issues of illiteracy in parents, and work to assist them in providing reading materials to their children.
- Be aware of appropriate books for children of different age groups, and have some available in the waiting room.

Speech delay

Any delay in speech milestones, or concerns expressed by parents at the 18-month well baby visit, should be investigated, including history and physical focusing on hearing, neurodevelopment, and the specifics of the speech or language concern.

While awaiting assessment by the local speech and language services, the child and parents should be referred to the generic or universal community services (e.g., Early Years Centres, library programs).

Improving Childhood Development

Familiarity with local speech and language services is important, and access to speech, language, and phonological processing interventions are critical to reducing the risk of reading difficulties for these children.

Each community in Ontario has a preschool speech and language program, and a Healthy Babies Healthy Children program, that can assist the physician in accessing services. Ontario Early Years Centres are also available in each community and offer resources for parents to enhance their interactional skills with their children.

Example literacy program: Reach Out and Read

There are examples in the United States of programs that have developed over the past few years with an

emphasis on the physician role and literacy.

Considering that children's experiences with books, and time spent reading with an adult, can be used as a measuring stick for how their pre-reading skills are developing, these programs, such as Reach Out and Read (ROR, see: www.reachoutandread.org), developed through the Boston Children's Hospital, have been promoting early literacy by bringing new books and advice about the importance of reading aloud into the pediatric exam room.

In the ROR program, doctors and nurses give new books to children at each well-child visit from six months to five years of age, and accompany these books with developmentally appropriate advice to parents about reading aloud with their child.

The ROR program model is based on research that shows a connection between the frequency of sharing books with babies, toddlers, and young children, and enhanced language development.

Since 1989, ROR pediatricians have been prescribing books and reading aloud for their young patients, with a special focus on children growing up in poverty.

ROR-trained doctors and nurses are currently promoting pediatric literacy at more than 2,500 U.S. hospitals, health centres and private pediatric practices.

Literacy resources in the physician office

A much less sophisticated approach would include the presence of age-appropriate reading materials in the physician office as a model of the

Literacy Reference Chart

Reading Strategy	Rationale
Read and re-read favourite books.	Repetition aids in ingraining the vocabulary.
Talk about events in the books as they relate to the child's experiences.	This "explicit reading" draws attention to what you want them to learn and associates it to what they already know (e.g., reading the word "vacation" and relating it to a personal experience aids in comprehension).
Provide materials for pretend writing and drawing.	Allows creative expression and an understanding of how print represents what you say. Early scribbles are the beginning of writing.
Allow the child to sit with you, hold the book, and turn the pages.	Children who are more engaged in the reading process have better success.
Provide opportunities for the child to write (make shopping lists, menus).	Teaches that print is meaningful in our lives and emphasizes that print represents what you say.
Point out print and common logos in the environment.	Teaches the meaning of symbols like a STOP sign. Environmental print/logo representation is the earliest form of reading.
Continue to sing songs and repeat rhymes.	Rhyming is the beginning of a child's recognition of the fact that words are made up of smaller units.
Listen attentively to what the child is attempting to say, and expand their sentences.	This provides a model of more advanced patterns of speech and grammar.
Talk about the order of events in a story — What happens first? Second? How does it end?	Sequencing is important for comprehension of the story/event, and to learn that there is order in a story.

importance of books in an 18-month environment, the use of a literacy handout (see p. 45), and referral to community programs.

1. Recommended books

Following is a partial list of recommended books for the 18-month visit:

a) Print salient books, a series that emphasizes the beginnings of reading with simple words in illustrations or which use different fonts for emphasis, and

b) Language oriented books, which emphasize rich language and vocabulary.

a) Print salient books:

- *School Bus*, Donald Crews, Harper-Collins 1984.
- *Trucking*, Donald Crews, Harper-Collins 1984.
- *The Big Red Bus*, Judy Hindley, Candlewick Press 1995.
- *Nine Ducks Nine*, Sarah Hayes, Candlewick Press 1999.
- *Where's Spot*, Eric Hill, Puffin Books.
- *Spot's First Walk*, Eric Hill, Puffin Books.
- *Spot's First Easter*, Eric Hill, Puffin Books.
- *Spot's First Christmas*, Eric Hill, Puffin Books.
- *Spot's Birthday Party*, Eric Hill, Puffin Books.
- *Spot Goes to School*, Eric Hill, Puffin Books.
- *Spot Goes to the Park*, Eric Hill, Puffin Books.
- *Spot Goes to the Farm*, Eric Hill, Puffin Books.
- *Spot Bakes a Cake*, Eric Hill, Puffin Books.
- *The Wide-Mouthed Frog* (A pop-up book), Keith Faulkner, Dial Books for Young Readers 1998.
- *The Long-Nosed Pig* (A pop-up book), Keith Faulkner, Dial Books for Young Readers 1998.
- *The Terrible Twos*, Julia Gorton, Hyperion Books for Children 1999.

b) Language oriented books:

- *Good Night Gorilla*, Peggy Rathmann, Scholastic 1994.
- *Let's Play*, Debbie MacKinnon,

Little Brown and Company 1999.

- *Good Night Gorilla*, Peggy Rathmann, Scholastic 1994.
- *Ten Minutes To Bedtime*, Peggy Rathmann, Scholastic.
- *Guess How Much I Love You*, Sam McBratney, Walker Books/Candlewick Press 1995.
- *There was a Old Lady Who Swallowed a Fly*, Pam Adams, Child's Play 1973.
- *There was a Cold Lady Who Swallowed Some Snow*, Lucille Colandro, Scholastic 2003.
- *Chicka Chicka Boom Boom*, Bill Martin, Simon Schuster/Aladdin Paperbacks 2000.
- *Froggy series* (e.g., *Froggy Gets Dressed*, *Froggy Goes to Bed*, *Froggy Goes to School*, *Froggy's First Kiss*), Jonathan London, Puffin Books.
- *Kipper*, Mick Inkpen, Red Wagon Books 1999.
- *Lily Takes a Walk*, Satoshi Kitamura.
- *Who Stole the Cookies?*, Judith Moffat, Grosset & Dunlap 1996.
- *Harold and The Purple Crayon*, Crockett Johnson, Harper Collins 1981.

2. Literacy handout

In addition to referencing age-appropriate books, an educational handout with reading tips for parents can advise the adoption of behaviours that encourage sound literacy development. The literacy chart on page 45 outlines the rationale behind recommended reading strategies.

3. Referral to Community Programs

Perhaps one of the final and most important roles the primary care practitioner has is to encourage parents to become involved in community activities with their children.

Each community in Ontario has literacy specialists, Early Years Centres, library programs, etc. As noted in Part I of this series, the variety of services in the community is broad, and the physician role of strengthening these connections for families where they can learn parenting skills, experience good developmental environments and strategies, including literacy promotion, is crucial. **OMR**

References

1. Butler-Jones D. Foreword. In: Literacy and Health in Canada: perspectives from the second Canadian conference on literacy and health. *Can J Public Health* 2006. May-Jun; 97(3 Suppl 2):S3. Available from: http://www.cpha.ca/shared/cjph/archives/CJPH_97_Suppl_2_e.pdf. Accessed: 2006 Oct 26.
2. Rootman I, Gordon El-Bihbety D. Staying the course: the Captain's log continues. In: Literacy and Health in Canada: perspectives from the second Canadian conference on literacy and health. *Can J Public Health* 2006 May-Jun; 97(3 Suppl 2):S5-S9. Available from: http://www.cpha.ca/shared/cjph/archives/CJPH_97_Suppl_2_e.pdf. Accessed: 2006 Oct 26.
3. Chiarelli L, Edwards P. Building healthy public policy. In: Literacy and Health in Canada: perspectives from the second Canadian conference on literacy and health. *Can J Public Health* 2006 May-Jun; 97(3 Suppl 2):S37-S42. Available from: http://www.cpha.ca/shared/cjph/archives/CJPH_97_Suppl_2_e.pdf. Accessed: 2006 Oct 26.
4. Canadian Pediatric Society. Psychosocial Pediatrics Committee. Promoting literacy in the physician's office. [Position statement (PP 2002-01) – under revision]. *Pediatr Child Health* 2002 Jul/Aug; 7(6):398-403. Available from: http://www.cps.ca/english/statements/PP/PP02_01.pdf. Accessed: 2006 Oct 26.

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