Promoting Early Literacy in Health Care Settings: Connecting for a National Strategy

Alyson Shaw, MD, FRCPC, FAAP
CAPHC Webinar
April 20, 2016
Outline

Why health care providers should care about literacy.

The role of health care providers in promoting literacy.

The evidence that pediatric providers can make a difference.

Review models of early literacy promotion.
Literacy Determines Health

Low literacy is the factor that has the highest correlation with poor health. It is more of an indicator than economics, employment, or education.

American Medical Association
Low literacy begins in childhood

5-10% children have significant reading delays

20% Ontario 4-5 y olds show delays in vocabulary development

33% Ontario grade 3’s don’t meet provincial reading and writing standards
SPECIAL REPORT

HOW A CHILD'S BRAIN DEVELOPS
And what it means for child care and welfare reform
Neurobiology of Learning

overproduction → stabilization → pruning

Synaptic Density in the Human Brain
What promotes brain development?

Social context and relationships

Repetition and reinforcement

Brain architecture and abilities built from the bottom up—simple circuits and skills that result in complex cognition and behaviour
What hurts brain development?

- Trauma, disease
- Environmental exposures
- Lack of stimulation
- Adverse events
- Toxic stress
Early Experience and Language Learning

Meaningful Differences (Hart and Risley)

- Professional (2150/hr; says 1100)
- Working class (1250/hr; says 700)
- Welfare (620/hr; says 500)

30 million word gap
Reading Aloud and Parent-Child Verbal Interaction

Greatest QUANTITY and QUALITY of language interaction occurs during parent-child reading activities.

Hoff-Ginsberg. *Child Dev.* 1991
“Books build better brains”

• Books prompt dialogue

• Books encourage expressive vocabulary, decontextualized talk.

• Books promote early literacy skills

• Culturally valued symbol of intelligence
Role of Health Care Providers

- Docere = “to show, teach”
- Trusted advisors
- Early, frequent contact
- Parents want information from MDs about learning.
- Nearly half of parents who do not read daily believe it would be helpful to discuss literacy with their pediatrician.
  - Kuo et al. Pediatrics. 2004
• Literacy promotion is a key part of practicing preventive medicine.

• At its root, low literacy is a pediatric problem.

• Primary care physicians have a unique opportunity to promote literacy.
Literacy Promotion: An Essential Component of Primary Care Pediatric Practice
COUNCIL ON EARLY CHILDHOOD

Pediatrics; originally published online June 23, 2014; DOI: 10.1542/peds.2014-1384
Standard of care

- Rourke Baby Record
- Bright Futures
- Enhanced 18-month visit
- Nelson’s Textbook of Pediatrics
<table>
<thead>
<tr>
<th>Rourke Baby Record: Evidence-Based Infant/Child Health Maintenance</th>
<th>GUIDE II: 2–6 mos</th>
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<tbody>
<tr>
<td><strong>NAME:</strong> ____________________</td>
<td>Birth Day (d/m/y): ___________</td>
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<tr>
<td><strong>Gestational Age:</strong> _________</td>
<td><strong>Birth Length:</strong> ________ cm</td>
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<table>
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<tr>
<th><strong>DATE OF VISIT</strong></th>
<th>2 months</th>
<th>4 months</th>
<th>6 months</th>
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<tr>
<td><strong>GROWTH</strong> use <strong>WHO growth charts.</strong></td>
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<td>Correct age until 24–36 months if &lt; 37 weeks gestation</td>
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<tr>
<td><strong>PARENT/CAREGIVER CONCERNS</strong></td>
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<tr>
<th><strong>NUTRITION</strong></th>
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<tbody>
<tr>
<td>[ ] Breastfeeding (exclusive)¹</td>
<td>[ ] Vitamin D 400 IU/day¹</td>
<td>[ ] Breastfeeding (exclusive)¹</td>
<td>[ ] Vitamin D 400 IU/day¹</td>
</tr>
<tr>
<td>[ ] Vitamin D 400 IU/day¹</td>
<td>[ ] Formula Feeding (iron-fortified/preparation)¹</td>
<td>[ ] Formula Feeding (iron-fortified/preparation)¹</td>
<td>[ ] Formula Feeding (iron-fortified/preparation)¹</td>
</tr>
<tr>
<td>[ ] [600–900 mL (20–30 oz) / day]¹</td>
<td>[ ] [750–1080 mL (25–36 oz) / day]¹</td>
<td>[ ] Discuss future introduction of solids¹</td>
<td>[ ] Discuss future introduction of solids¹</td>
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| **EDUCATION AND ADVICE** | **Injury Prevention** | | | |
|--------------------------|----------------------|-----------|----------|
| [ ] Car seat (infant)¹ | [ ] Safe sleep (position, room sharing, avoid bed sharing, crib safety)¹ | [ ] Electric plugs/cords¹ | [ ] Carbon monoxide/Smoke detectors¹ |
| [ ] Electric plugs/cords¹ | [ ] Carbon monoxide/Smoke detectors¹ | [ ] Hot water < 49ºC/bath safety¹ | [ ] Choking/safe toys¹ |
| [ ] Falls (stairs, change table, unstable furniture/TV, no walkers)¹ | [ ] Choking/safe toys¹ | [ ] Pacifier use¹ | [ ] Pacifier use¹ |

<table>
<thead>
<tr>
<th><strong>Behaviour and family issues</strong></th>
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<tbody>
<tr>
<td>[ ] Crying²</td>
<td>[ ] Healthy sleep habits²</td>
<td>[ ] Night waking²</td>
<td>[ ] Soothability/responsiveness²</td>
</tr>
<tr>
<td>[ ] Parenting/bonding</td>
<td>[ ] Parental fatigue/postpartum depression²</td>
<td>[ ] Family conflict/stress²</td>
<td>[ ] Child care²</td>
</tr>
<tr>
<td>[ ] High risk infants/assess home visit need²</td>
<td>[ ] Siblings²</td>
<td>[ ] Family healthy active living/sedentary behaviour²</td>
<td>[ ] Family healthy active living/sedentary behaviour²</td>
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<tr>
<th><strong>Environmental Health</strong></th>
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<tbody>
<tr>
<td>[ ] Second hand smoke¹</td>
<td>[ ] Sun exposure/sunscreens/insect repellent¹</td>
<td>[ ] Pesticide exposure¹</td>
<td>[ ] Pesticide exposure¹</td>
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<th><strong>Other Issues</strong></th>
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<tbody>
<tr>
<td>[ ] Teething/Dental cleaning/Fluoride¹</td>
<td>[ ] No OTC cough/cold medicines¹</td>
<td>[ ] Encourage reading²</td>
<td>[ ] Encourage reading²</td>
</tr>
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Encourage Reading
Early Literacy Promotion
Goals of Literacy Promotion

1. Children who love words and love books
2. Parents who look at books with their children and understand why reading aloud is important.
3. Parents who read aloud effectively to have fun and to build the child’s language and pre-reading skills.
4. Parents who feel supported by their physicians in their aspirations for their child’s cognitive development.
What do we want parents to do?

• Share books

• Engage their children in dialogue around the words and images.

• Make it a daily routine
Reach Out and Read

Volunteer Readers
Gift book
Anticipatory Guidance
Clinic-based literacy interventions
Summary of the Evidence

- 2000 subjects
- >14 studies
- Multiple populations
- Multiple study designs
- Consistent results
- Parents report more positive attitudes towards books and reading.
- Increase the likelihood that parents will read to their children
- Improve receptive and expressive language scores of preschoolers
Additional Findings

An English-language program is effective for a multilingual population.

(Silverstein, Pediatrics, 2002)

Distribution of books enhanced effectiveness of intervention beyond what is achieved by anticipatory guidance alone.

Parents rate MDs who demonstrate reading aloud and give books as more “helpful”.

Dose Effect for the ROR intervention

The more visits, the more likely parents were to read aloud to their children and enjoy reading together.  
(Weitzman et al., Pediatrics 2004).

The more visits, the higher the expressive and receptive language scores.  
(Theriot et al., Clinical Pediatrics 2003)

reachoutandread.org
AAP and CPS Recommendations

- Anticipatory guidance for all parents
- Counsel all parents about developmentally appropriate reading activities
- Providing books at health supervision visits for all high-risk, low-income children
- Supporting and promoting these efforts with posters and parents information materials
- Partnering with child advocates to influence national messaging and policies.
Key messages for parents

- “You are your child’s best teacher”
- “Talk to your baby” even before he can talk.
- “Sing and play, everyday.”
- Make books part of your child’s daily routine.
- Reading is FUN.
- Your child will love books because your child loves you.
Read
Speak
Sing
Lisez, Parlez, Chantez
Read, Speak, Sing
<table>
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<tr>
<th>Age in months</th>
<th>Developmental Milestones</th>
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<tbody>
<tr>
<td>6</td>
<td>Puts books to mouth (it’s OK!)</td>
</tr>
<tr>
<td>12</td>
<td>Points with one finger</td>
</tr>
<tr>
<td>18</td>
<td>Can turn board book pages</td>
</tr>
<tr>
<td>24</td>
<td>May not sit still for whole book</td>
</tr>
<tr>
<td>36</td>
<td>Can retell familiar stories</td>
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</tbody>
</table>

### Developmental Milestones related to books and reading

<table>
<thead>
<tr>
<th>Age (months)</th>
<th>What kind of books babies like</th>
<th>Physical skills related to books</th>
<th>Cognitive (thinking) skills related to books</th>
<th>What parents can do to help develop these skills</th>
</tr>
</thead>
</table>
| 0-6 months   | - Board books with photos of babies  
- Brightly coloured books to touch and taste | - Vocalizes  
- Looks at pictures  
- Prefers pictures of faces | - Names familiar pictures  
- Reads to dots or stuffed animals  
- Recites parts of well-known stories  
- Attention span is not consistent | - Hold your baby comfortably, looking face-to-face  
- Follow your baby’s cues for “more” and “stop”  
- Point and name pictures for your baby |
| 6-12 months  | - Books with pictures of familiar objects  
- Small-sized books for small hands | - Reaches for books  
- Puts books to mouth  
- Sits in your lap  
- Turns pages with your help | - Looks at pictures  
- Prefers pictures of faces  
- Vocalizes, pats pictures | - Respond when your child wants to read  
- Let your child control the book  
- Be comfortable with a toddler’s short attention span  
- Ask “where’s the…” and let your child point |
| 12-18 months | - Sturdy board books to handle and carry  
- Books with images of babies and children doing familiar things—sleeping, eating, playing  
- Goodnight books for bedtime  
- Books about saying hello and goodbye  
- Books with only a few words on each page | - Sits without support  
- May carry a book  
- Can hold a book with help  
- Turns board pages, several at a time  
- No longer mouths the book right away  
- Points at pictures with one finger  
- May make the same sound for a specific picture  
- Points when asked: “Where’s…?”  
- Turns book right side up  
- Gives book to adult to read | - Names familiar pictures  
- Reads to dots or stuffed animals  
- Recites parts of well-known stories  
- Attention span is not consistent | - Relate books to your child’s experiences  
- Use books in routine, bedtime  
- Ask, “What’s that?” and give your child time to answer  
- Pause and let your child complete the sentence |
| 18-24 months | - Books with simple rhymes and predictable text | - Turns board book pages easily, one at a time  
- Carries book(s) around the house  
- May use books as a transitional object (something that helps a child feel comforted, calm or secure) | - Names familiar pictures  
- Reads to dots or stuffed animals  
- Recites parts of well-known stories  
- Attention span is not consistent | - Relate books to your child’s experiences  
- Use books in routine, bedtime  
- Ask, “What’s that?” and give your child time to answer  
- Pause and let your child complete the sentence |
Prescription to Read

Date: ____________________________

Child’s name: _________________________

☐ Share a book with your child:
  ☐ every night before bed. Repeat daily.
  ☐ for ______ minutes a day.

☐ Visit the library

Get the most out of storytime!

0–12 months
- Hold your baby comfortably; face-to-face
- Follow baby’s cues for “more” and “stop”
- Point and name the pictures

12–18 months
- Respond when your child wants to read
- Let your child control the book
- Remember your toddler has a short attention span
- Ask “where’s the...?” and let your child point

18–24 months
- Relate the stories to your child’s experiences
- Use books in routines and during bedtime
- Ask “what’s that?” and give your child time to answer
- Pause and let your child finish the sentence

www.caringforkids.cps.ca

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CHEO
Promoting Literacy
A guide for physicians

Low literacy is a risk factor for poor health. Promoting books and reading in the clinical setting is a quick, simple and evidence-based intervention that can help prevent health problems. Use this guide to help you get started. It’s also useful as a teaching tool for residents and medical students.

In your practice
- Ask about family literacy at regular health care visits: How often do children and parents look at books together? Do children have access to books in the home? How are books used in routines?
- Include literacy promotion in your routine clinical practice:
  - Provide anticipatory guidance on literacy development, using the table on the back of this resource. It's also available as a handout for parents from the CPS.
  - “Prescribe” books and reading in the home using the CPS “Prescription to Read” pads.
  - Make library card applications available in your office.
  - Refer adults with low literacy to local services and programs. Look under “Learn” in the Yellow Pages for local resources.
  - Encourage parents and caregivers to look at books every day with children, starting from birth, and to create literacy-rich environments.
  - Encourage singing, storytelling, and interacting about pictures for caregivers with low literacy skills, or for those whose first language is not English or French.
  - Encourage families to get a library card and to visit the library regularly.
  - Create a literacy-promoting waiting area. Some ideas:
    - Have culturally- and age-appropriate reading materials.
    - Put up posters that promote reading, such as the one from the CPS.
    - Have information on local literacy resources.
    - Recruit volunteers to read to children.

In your community
- Support your local library. Let them know you promote literacy in your practice and offer to make their information available.
- Speak to local groups about the benefits of books and reading to children.
- Teach residents and medical students about the benefits of incorporating literacy promotion into well-child visits.
- Advocate for government support for literacy promotion in health care settings, such as funding for children's books to be given at well-child visits.
- Encourage your hospital to promote books and reading in clinics and/or the emergency room.

Make books part of the visit
Providing a new, developmentally-appropriate book at each well-child visit helps encourage literacy:
- Incorporate the book and discussion of reading into routines like the physical exam, or to distract during procedures such as immunization.
- Introduce the book early, not at the end of the visit.
- Hand the book to the child.
- Observe how he handles it, and watch the parent-child interaction.
- Listen for words elicited by the book pictures and pictures.
- Compliment the parent on the child's interest in the book, her ability to handle the book, and her potential as a future reader.
- Ask, “Have you started looking at books with (child's name) yet?”
- Help parents see that their child's interest in books is related to language development and intelligence.

For newborns and very young babies, try rhymes that involve gentle touch, such as patting their feet or giving them a little bounce while you're talking.

Read to your baby.
Making books, stories, and storytelling a part of your baby's daily routine will help nurture a love of reading. Even very young babies love picture books, and its helpful to make storytime part of your baby's routine, such as before naps or bedtime. You don't even have to read the story all the way through. Just talking about some of the pictures is fun for young babies.

Use rhymes, games and songs.
Babies respond to them almost from birth. And they don't need to understand the words for these moments to be learning experiences, especially when they're sharing them with mom or dad.

Talk about what's going on.
Whether you're changing a diaper, bathing your baby, or taking a walk, use words that describe the actions and the things around you. You'll help him develop vocabulary before he can even talk.

Babes babble.
It's how they learn to make sounds with their own voices. Repeat these sounds, and turn them into real words. You'll help your baby recognize which sounds form language. And he'll eventually make the connection between the sounds and an object or person, like "dada."

Once your baby starts talking, help her find the words for the things around her. By repeating words, you'll help your child remember them.

Encourage baby's involvement.
Babies like to put books in their mouths, so be sure your baby has access to sturdy and clean board books. At first, your baby will reach your help to turn the pages. As he gets older, you can let him turn the pages on his own.

Sing songs.
The music makes the words easier to remember, and is a fun way to make language come alive for you and your baby.

Visit the public library.
Even babies can get a library card. There are lots of free resources to encourage your baby's love of reading. Many libraries have free programs for parents and babies or young children that use books, rhymes and songs. Ask the librarians for more ideas.

For more information on your baby's growth and development, talk to your doctor or visit www.caringforkids.cps.ca.
Learning to read: What physicians need to know – and do – about children’s literacy

Alyson Shaw MD, Sarah Shea MD, Guest Editors
BOOKS BUILD CONNECTIONS TOOLKIT

Books Build Connections Toolkit

American Academy of Pediatrics
Dedicated to the Health of All Children

Reach Out & Read
where great stories begin

SCHOLASTIC

Small to Fail
Summary

- Books build better brains by fostering relationships
- Good pediatric practice should include promoting books and reading aloud
- Health care providers can make a difference in literacy outcomes
- For children at socioeconomic risk, giving books helps overcome barriers
- ROR offers an evidence-based model
- Physicians should incorporate strategies that suit their practice and population
Resources

• Read, Speak, Sing. Canadian Pediatric Society Early Literacy Resources
  http://www.cps.ca/en/issues-questions/literacy

• Books Build Connections Toolkit (American Academy of Pediatrics)
  http://littoolkit.aap.org/Pages/home.aspx

• Reach Out and Read
  http://www.reachoutandread.org/