To: Regional Directors
Programme Managers
Heads of Local Authorities
Heads of Institutions
Social Services

Circular No: H159/99

SCREENING FOR DEVELOPMENTAL DISABILITIES IN PRE-SCHOOL CHILDREN: 0 – 6 WEEKS, 9 MONTHS AND 18 MONTHS SCREENING TOOLS

Health care workers in the Western Cape Province have been doing screening for developmental disabilities for a number of years. The concern was often raised that this screening is done without standardised screening tools, guidelines for referral and training. Appropriate referral and management of cases also created problems and uncertainties.

During June 1996 a national workshop took place at the Child Health Unit, UCT to discuss the feasibility of a screening programme, as well as the availability of suitable screening tools. Consensus was reached that this province should develop a screening programme in line with our comprehensive primary health care services. This programme should be linked to appropriate interventions and should therefore be standardised.

To this effect the Maternal, Child and Women’s Health Sub-directorate formed a multi-disciplinary and interdepartmental Provincial Reference Group with the following objectives in mind:

- To develop standardised screening tools and guidelines for developmental assessment of children at 0 – 6 weeks, 9 months and 18 months.
To develop training packages for each of the above-mentioned screening tools and to provide this to the regional training sections.

To pilot these screening tools, guidelines and training packages.

To provide support to the regions and districts in the implementation of the above mentioned.

To facilitate the development of a referral system for developmental assessment in the province.

Attached please find the following Addendums:

1. **ADDENDUM A - C: STANDARDISED SCREENING TOOLS AND GUIDELINES: 0 – 6 WEEKS, 9 MONTHS AND 18 MONTHS**

   The above mentioned were developed, piloted and reviewed by the Provincial Reference Group and are ready for implementation.

   Training manuals and accompanying videos on Developmental Screening were handed over to the Human Resource Development and Training Sections at the training sessions conducted in each region.

   The Reference Group facilitated a number of training workshops in each region. Health care workers should therefore be able to start with the implementation of these tools as soon as possible.

2. **ADDENDUM D: ROAD TO HEALTH CHART**

   A copy of the new Road to Health Chart to illustrate the proposed method for record keeping is attached.

   Please note that to avoid an increase in the workload of the health care workers it is advisable not to complete a screening tool form for each child where no abnormalities are detected. It would be sufficient to record the findings on the Road to Health Chart and the clinic record card. However, where abnormalities are found or if there are indications for referral, an individual screening tool form should be completed for this client. A copy of this form (screening tool) should then be used as a referral letter. (This procedure was extensively discussed in the training sessions and piloted. Should any health care worker insist to complete a screening tool form for each child he/she is free to do so.)

   Forms for screening can be ordered from the Central Store (Cape Medical Depot) following the normal ordering procedure. Catalogue numbers, according to the new centralised system, will be supplied by the Central Store as soon as it becomes available.

3. **ADDENDUM E: REFERRAL GUIDELINES**

   On request of the health care workers guidelines for referral of children for further assessment were developed. It is important to note that these recommendations for
referral should be seen in context with the Provincial Health Plan and the referral routes within each district and region.

A newly established official referral resource for confirmed visually impaired or blind or deaf/blind children and their parents/caregivers is the Institute for the Blind (Tel: 023-3425555). These children and their parents/caregivers can be referred for further assessment, parental guidance and information regarding appropriate management.

We trust that by implementing a standardised developmental screening system in our province we will use the limited time of our health care workers more constructively and render a more comprehensive primary health care service to our clients.

T SUTCLIFFE
SECRETARY GENERAL: DEPARTMENT OF HEALTH AND SOCIAL SERVICES
DEVELOPMENTAL SCREENING TOOL: 0 - 6 WEEKS
(See guidelines for disclaimer)

Name of child: .......................................................... D.O.B. .....................

(D) indicates a possible Developmental problem. Refer for developmental assessment

<table>
<thead>
<tr>
<th>PHYSICAL EXAMINATION</th>
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<tbody>
<tr>
<td>1. Adequate weight gain</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>2. Head circumference normal (relative to weight)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>3. Fontanelle normal</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>If abnormal, may be medical emergency</td>
<td></td>
<td></td>
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<td>4. General appearance normal</td>
<td>Yes</td>
<td>No</td>
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<td>5. Skin and eyes normal</td>
<td>Yes</td>
<td>No</td>
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<td>6. Mouth and palate normal</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Sucking normal</td>
<td>Yes</td>
<td>No</td>
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<td>7. Genitalia normal</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Testes descended in boys</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>8. Hips normal</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>9. Feet normal</td>
<td>Yes</td>
<td>No</td>
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</tbody>
</table>

QUESTIONNAIRE AND EXAMINATION
GROSS AND FINE MOTOR

| 10. Observe: Limb movements normal | Yes | No |
| 11. Observe: Posture normal | Yes | No |
| 12. Observe: Tone normal: Neck: Pull to sit | Yes | No |
| Trunk: Ventral suspension | Yes | No |
| Limbs: Limb flexion/extension | Yes | No |

LANGUAGE AND HEARING

| 14. Ask: Were both parents of the child born with normal hearing? | Yes | No |
| 15. Ask: Does the child startle to sound? | Yes | No |

VISION

| 16. Observe: Fixes (birth) and follows (6 weeks) | Yes | No |

PSYCHO-SOCIAL

| 17. Ask: Does the child smile at you? | Yes | No |
| 18. Observe: Caregiver interacts well with child | Yes | No |

MENTAL HEALTH

| 19. Caregiver is coping. (Ask: How are you?) | Yes | No |

Comment/referral: ........................................................................................................

Name: (PRINT)........................................ Signature:............ Date:.................. © PAWC 1999
Disclaimer: This tool has been developed and evaluated for use in primary health care services in the Western Cape Province. It is designed for use in conjunction with appropriate training. The Western Cape Provincial Developmental Screening Reference Group does not accept responsibility for use of the tool under other circumstances.

Stage: 0 - 6 weeks

Setting: At home, at a clinic, satellite or mobile clinic in a warm room
Ensure privacy where possible.

Procedure: The baby’s caregiver should be seated comfortably.
Explain the procedure to the caregiver and ask her whether she has any concerns about the child.
Examine the Road-to-Health card to identify high risk factors:
- antenatal history
- birth history
- follow-up at other health facilities
Wash hands before commencing procedure.
Fully undress the baby and lie him/her on an examination surface.

Equipment: Weighing scale and tape measure
Road-to-Health card
Clinic records
Growth charts (weight and head circumference)

Administering the screen:

Note: In premature babies, correct for gestational age by subtracting the number of weeks born early from the actual age. Example: A baby that is 8 weeks old, but is born at 34 weeks gestation (instead of 40 weeks) is
considered to be only 2 weeks old. \(40 - 34 = 6\) weeks, thus: \(8 - 6 = 2\) weeks)

Test number:

Physical Examination/Observation:

1. **Weight**: Plot the weight on the growth chart. Progressive fall off in weight from the birth centile indicates inadequate weight gain. The newborn baby loses weight during the first three days. The baby should begin to gain weight from the fourth or fifth day of age and regain birth weight by the seventh to tenth day.

2. **Head circumference**: Plot the head circumference on the growth chart. Head circumference and weight should be on similar centiles.

3. **Fontanelle**: The fontanelle in a normal baby is flat or slightly depressed. Note: Crying can cause the fontanelle to bulge in a normal baby.

4. **General Appearance**: Observe for dysmorphic features in body shape, face, ears, hands and feet. Dysmorphism means abnormality of the physical structure (i.e. malformation) of a single or multiple parts of the body. Characteristic patterns of malformations may be recognised as syndromes, for example Down Syndrome or Fetal Alcohol Syndrome.

5. **Skin**: Examine the baby's entire skin including back and buttocks. Exclude jaundice, anaemia, rashes and mottling. At this age these signs may indicate septicaemia.

6. **Eyes**: If held upright most babies will spontaneously open their eyes. Exclude conjunctivitis, jaundice and conjunctival pallor. Conjunctival pallor may be a sign of anaemia.

7. **Mouth and palate**: Look for clef lip and/or palate and oral thrush. Feel for submucosal cleft palate. Small submucosal clefts may not affect sucking. If the baby does not suck well on your finger ask the caregiver if the baby sucks well. If there is any doubt observe the baby feeding.

8. **Genitalia**: If a male's testes are not in the scrotum, test for retractile testes by stroking firmly downwards from the inguinal area to the scrotum. Exclude phimosis (in boys) and nappy rash. White mucoid vaginal discharge in girls may be normal - if necessary reassure the caregiver.

9. **Hips**: The baby lies supine with the feet towards the examiner.
Grasp the child's legs placing the examiner's
  - middle finger of each hand on each outer hip
  - thumbs on each inner side
  - Half abduct each leg
  - Lift each leg up from the back with the middle finger
  - Push backwards with the thumbs

This will identify an unstable hip which clicks into, or out of the hip socket.

*Testing for dislocation of the hips*

9. **Feet**: Exclude clubfoot. A temporary postural defect can be reduced by bringing the ankle and foot to a neutral position. A clubfoot (talisps) is a fixed abnormality and cannot be put in the normal position. Refer early if clubfoot is suspected.

**Questionnaire and Examination:**

**Gross and Fine Motor**

10. **Limb movements**: Exclude asymmetry or decreased movements. Observe the baby's spontaneous movements during placement on the examination surface, undressing, and the examination.

11. **Posture**: Observe the baby's posture during the examination. Normal posture includes some flexion of the limbs.
12. **Tone:**

Pull to sit:

The baby lies supine. Hold the baby at the **wrists** and pull to the sitting position. Observe the extent of head lag. The normal newborn infant may have complete head lag. At 6 weeks there may be some, but not complete head lag.

**Ventral suspension:**
- Hold the baby in a prone position
- Support the baby’s chest and abdomen
- Observe - extension of the trunk and neck
  - flexion of the arms and legs.

**Normal newborn**
- some head control
- some trunk curvature
- hips flexed
- preterm: - less head control
  - more trunk curvature
  - less hip flexion

**Normal 6 week old**
- head is held up
- some hip extension
- knees flexed
- elbows flexed

**Abnormal: low tone (floppy)**
- poor head control
- marked trunk curvature
- limbshang

**Abnormal: Increased tone**
- neck and trunk extended
- hands fisted
- elbows flexed
- scissoring of legs or increased flexion of hips and knees
Limb flexion:
With the baby lying supine, gently flex and extend the limbs
Observe for skin flexure cleanliness.

13. Moro reflex: Hold the baby supine, supporting the head with palm of
one hand. Lift the baby's head and then gently and quickly lower the
supported head for about 4 cms. The baby should extend the arms and
open the hands, followed by flexion to the midline. Observe for
excessive, decreased or asymmetrical arm movements.

Language and Hearing

14. Parents born with normal hearing: This question is to determine if
either parent of the baby was born deaf. If a baby's parent is born deaf,
there is a high chance of congenital deafness in the baby even if the
examination suggests the baby can hear. If so, refer the baby to your
regional specialist centre for hearing assessment.

15. Startle to sound: Ask the caregiver if the baby startles to loud sound.
If there is any doubt clap hands loudly out of sight of the baby.
Observe for blinking, startle reactions, or cessation or change in
physical activity (for example stopping sucking, change in respiration
rate).
Note: Caregivers may be in denial about their child's hearing
impairment.

Vision

16. Fixes and follows: Move a brightly coloured object across the baby's
gaze. Observe the baby's eyes. The baby should follow by 6 weeks.
Note: Caregivers may be in denial about their child's visual impairment.

Psycho-Social

17. Smiling: Ask the caregiver if the baby smiles at her. The baby should
smile by 6 weeks.

18. Infant-caregiver's interaction: Observe the quality and appropriateness
of interaction of the caregiver and the baby.

Attachment bonds (bonding):
• are feelings of emotional closeness between parent and child
• are necessary for normal emotional development of the baby
• may not occur immediately
• It is best to assist the caregiver who is struggling to relate to her
baby's needs assistance as early as possible.
• Observe whether the caregiver is able to respond appropriately to the baby. For example, does she show interest in her baby: is she able to smile, stroke, talk to her baby? Does she soothe the baby when it shows distress? Does she handle the baby with confidence and care?

Mental Health

19. Caregiver’s mental health: Ask about symptoms of distress, anxiety and depression in the mother.

The “Baby Blues”:
• are experienced by 80% of mothers
• occur 2 – 4 days after birth
• are characterised by rapid mood changes, tearfulness, anxiety and irritability linked to hormonal changes
• resolve within 2 weeks

Post Natal Depression:
• occurs in 30% of mothers across all cultural groups
• presents within one month after birth
• may persist if untreated
• use the Johnson and Johnson checklist to identify post-natal depression and manage and/or refer accordingly
• depression in most mothers resolves with psychological support only, but some mothers may require medication as well.

Post Natal Psychosis:
• occurs rarely
• refer for urgent psychiatric management

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MCWH Sub Directorate
1999
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Ask: The baby’s fine, how are you?

Does this sound familiar?

"I’m so irritable..."

'I feel like crying all the time...'

"I’m so tired, I’m exhausted..."

"I’m not coping..."

"I worry all the time..."

"I’m scared – I feel panicky at times..."

"I feel so lonely..."

"I feel ashamed and guilty..."

"I sometimes think of hurting the baby..."

"I don’t know who I am anymore..."

"I don’t sleep the way I used to..."

"I don’t eat the way I used to..."

"I don’t want sex anymore..."
**DEVELOPMENTAL SCREENING TOOL: 9 MONTHS**

(See guidelines for disclaimer)

Name of child:................................................... D.O.B:..............

(D) indicates a possible Developmental problem.
Refer for developmental assessment

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### PHYSICAL EXAMINATION

1. Adequate weight gain | Yes | No
2. Head circumference normal (relative to weight) | Yes | No (D)
3. General appearance normal | Yes | No (D)

### QUESTIONNAIRE AND EXAMINATION

#### GROSS AND FINE MOTOR

4. Ask: Does the child prefer to go to familiar people than strangers? | Yes | No (D)
5. Ask: Do the child's arms and legs move equally? | Yes | No (D)
6. Ask: Does the child's eyes move well without squinting? | Yes | No (D)
7. Ask: Does the child feed himself/herself with a piece of bread? | Yes | No (D)

#### LANGUAGE AND HEARING

8. Ask: Does the child speak or try to copy yoursounds? | Yes | No (D)
9. Ask: Does the child turn towards you when you call his/her name? | Yes | No (D)

#### VISION

10. Ask: Does the child watch a moving object? | Yes | No (D)
11. Ask: Do the child's eyes move well without squinting? | Yes | No (D)

#### PSYCHO-SOCIAL

12. Ask: Does the child prefer to go to familiar people than strangers? | Yes | No
13. Observe: Caregiver interacts well with child. | Yes | No

#### MENTAL HEALTH

14. Caregiver is coping. (Ask: How are you?) | Yes | No

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Comment/referral: ..................................................................................................................
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Name: (PRINT) ....................... Signature:..................... Date:.. .............. © PAWC 1999
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**Stage:** 9 months, for example when the child presents for the 9 month immunisation

**Setting:** At the clinic, satellite or mobile clinic. Ensure privacy where possible.

**Procedure:** The child's caregiver should be seated comfortably.

Explain the procedure to the caregiver and ask her whether she has any concerns about the child's development.

Examine the Road-to-Health card to identify high risk for developmental problems from:
- birth history
- birth to 6 weeks screen
- previous follow-up and illnesses

Wash hands before commencing procedure.

Place the child on a mat, or the floor whilst interviewing the caregiver, in order to observe the child's movements and behaviour.

**Equipment:** Weighing scale, tape measure and otoscope.
Road-to-Health card
Clinic record
Growth charts (weight and head circumference)

**Administering the screen:**

Ask questions 4 - 12 exactly as they are written.
If a caregiver does not understand the question, repeat the question, demonstrating the activity with your own movements where possible.

If there is any doubt about an answer to any of the questions, refer to the guidelines for suggested observations or examinations for that test item.

If still in doubt, refer for further assessment.

**Note:** In premature babies, correct for gestational age by subtracting the number of months born early from the actual age. A child who is 9 months old, but is born at 32 weeks gestation (instead of 40 weeks gestation - i.e., 2 months premature), is considered to be only 7 months old. \(40 - 32 = 8 \text{ weeks} = 2 \text{ months}, \text{ thus: } 9 - 2 = 7 \text{ months}\).

**Test number:**

**Physical Examination/Observation:**

1. **Weight:** Plot the weight on the growth chart.

2. **Head circumference:** Plot the head circumference on the growth chart. The head circumference and weight should be on similar centiles.

   If the head circumference is inappropriately small, or has progressively fallen from the birth percentile, refer for developmental assessment.

   If the head circumference has progressively increased from the birth percentile, **refer stat to exclude hydrocephalus.**

3. **General Appearance:** Observe for dysmorphic features in body shape, face, ears, hands and feet. Dysmorphism means abnormality of the physical structure (i.e., malformation) of a single or multiple parts of the body.

   Characteristic patterns of malformations may be **recognised** as syndromes, for example Down Syndrome or Fetal Alcohol Syndrome.

**Questionnaire and Observation:**

**Gross and Fine Motor**

4. **Sitting:** The child should sit unaided, without any support e.g., cushions, for at least one minute and be able to use the hands for play and eating. In order to sit unaided a child needs good trunk and neck control.

   If in doubt: Observe the child sitting.

5. **Limb movements:** Observe for asymmetry of movements in the child's limbs. Decreased movement on one side may indicate **hemiplegia.**
6. **Limb tone:** If in doubt: Observe for abnormal posture (for example limbs abnormally flexed or extended, hands fistig) and examine for floppiness or spasticity.

7. **Feeding:** If in doubt: Give the child an object that can be held in one hand. A child of 9 months old usually takes objects to the mouth.

**Language and Hearing**

8. **Speech sounds:** Absence of speech sounds indicates a developmental problem, for example deafness, emotional problems or mental handicap.

9. **Turns when called:** If in doubt: Call the child’s name and observe his/her response.

   If the answer is ‘No’ to the language and hearing questions, examine both ears with an otoscope.

   If wax, foreign bodies or pus are not present, refer for a diagnostic hearing test.

   If pus, wax or foreign body are present this may be the cause of hearing loss. Treat the cause or refer to MO and repeat otoscopy in 2 weeks.

   After 2 weeks if the answer is still ‘No’ on repeating the question, refer for a diagnostic hearing test and development assessment as appropriate.

**Vision and Squint**

10. **Watches moving object:** If in doubt: Observe whether the child makes eye contact or follows an object moved in front of him/her.

11. **Squint:** If in doubt: Observe for squint.

   Note: Wide epicanthic folds can mimic a squint.

   Sudden onset of squint may indicate a serious condition such as a tumour, and require urgent referral.

   For non-acute squint refer as per regional policy.

**Psycho-social**

**Note:** These questions may not be answerable if the child’s attendant is not his/her usual caregiver.

12. **Prefers familiar people:** Infants interact differently with caregivers and strangers within their first few months, but begin to show a consistent preference for their primary caregivers at about 8 - 9 months of age.
At this stage, the infant tends to look warily at unfamiliar people or strangers, resists being handed over to them by a caregiver and looks for or moves towards their caregiver when a stranger approaches.

13. **Caregiver's interaction**: Observe whether the caregiver responds appropriately to the child's behaviour. For example, does she respond calmly and caring when the infant signals his/her needs? Does she show interest in the child? Is she interested in the child’s play? Does she watch out for potential situations of danger for the child?

Caregivers who consistently ignore, become annoyed with or seem unaware of how to respond to children's needs, may be unable to respond to them because of inadequate parenting skills or psychiatric or psychological difficulties.

Note: In a short interview it may be difficult to observe the above thoroughly, for example, the baby may be tired, ill or teething and resist the caregiver's attempts to soothe him/her.

**Mental Health**

14. **Caregiver's mental health**: If in doubt: Refer to the Johnson and Johnson checklist for post-natal depression.

Note: The caregiver's mental health has a profound effect on an infant's development.

Refer to the 0-6 Week Developmental Screening Mental Health notes.
**DEVELOPMENTAL SCREENING TOOL: 18 MONTHS**

(See guidelines for disclaimer)

Name of child: .............................................. D.O.B. ..............

(D) indicates a possible Developmental problem.
Refer for developmental assessment

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**PHYSICAL EXAMINATION**

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<thead>
<tr>
<th></th>
<th>Adequate weight gain</th>
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<tr>
<th></th>
<th>Head circumference normal (relative to weight)</th>
<th>Yes</th>
<th>No (D)</th>
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<tr>
<th></th>
<th>General appearance normal</th>
<th>Yes</th>
<th>No (D)</th>
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<td>3</td>
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**QUESTIONNAIRE AND EXAMINATION**

**GROSS AND FINE MOTOR**

<table>
<thead>
<tr>
<th></th>
<th>Ask: Does the child walk unaided?</th>
<th>Yes</th>
<th>No (D)</th>
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<td>4</td>
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<tr>
<th></th>
<th>Ask: Does the child move all his/her limbs equally?</th>
<th>Yes</th>
<th>No (D)</th>
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<td>5</td>
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<th></th>
<th>Ask: Do the child's arms and legs feel normal to you? (with no stiffness or weakness)</th>
<th>Yes</th>
<th>No (D)</th>
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<tr>
<th></th>
<th>Ask: Does the child grasp a bean-sized object with pincer grip?</th>
<th>Yes</th>
<th>No (D)</th>
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<td>7</td>
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<tr>
<th></th>
<th>Ask: Does the child drink out of a cup unaided?</th>
<th>Yes</th>
<th>No</th>
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<td>8</td>
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**LANGUAGE AND HEARING**

<table>
<thead>
<tr>
<th></th>
<th>Ask: Does the child respond to simple commands or questions?</th>
<th>Yes</th>
<th>No (D)</th>
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<td>9</td>
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<tr>
<th></th>
<th>Ask: Does the child use 3 recognisable words?</th>
<th>Yes</th>
<th>No (D)</th>
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<td>10</td>
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<th></th>
<th>Ask: Does the child turn towards you when you call his/her name?</th>
<th>Yes</th>
<th>No (D)</th>
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<td>11</td>
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**VISION**

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<tr>
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<th>Ask: Does the child watch a moving object?</th>
<th>Yes</th>
<th>No (D)</th>
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<td>12</td>
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<th></th>
<th>Ask: Do the child's eyes move well without squinting?</th>
<th>Yes</th>
<th>No (D)</th>
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<td>13</td>
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**PSYCHO-SOCIAL**

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<th></th>
<th>Ask: Does the child play alone in your presence?</th>
<th>Yes</th>
<th>No</th>
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<td>14</td>
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<tr>
<th></th>
<th>Observe: Caregiver interacts well with child.</th>
<th>Yes</th>
<th>No</th>
<th></th>
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<td>15</td>
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<tr>
<th></th>
<th>Caregiver is coping. (Ask: How are you?)</th>
<th>Yes</th>
<th>No</th>
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<tr>
<td>16</td>
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<th>Observe: Child's emotions and behaviour appear normal.</th>
<th>Yes</th>
<th>No</th>
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<td>17</td>
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Comment/referral: ........................................................................................................................................

Name: (PRINT) ......................... Signature: ......................... Date ......................... © PAWC 1999
Disclaimer: This tool has been developed and evaluated for use in primary health care services in the Western Cape Province. It is designed for use in conjunction with appropriate training. The Western Cape Provincial Developmental Screening Reference Group does not accept responsibility for use of the tool under other circumstances.

Stage: 18 months, for example when the child presents for the 18 month immunisation

Setting: At the clinic, satellite or mobile clinic. Ensure privacy where possible.

Procedure: The child's caregiver should be seated comfortably

Explain the procedure to the caregiver and ask her whether she has any concerns about the child's development.

Examine the Road-to-Health card to identify high risk for developmental problems from:
- birth history
- birth to 6 weeks and 9 months screen
- previous follow-up and illnesses

Wash hands before commencing procedure.

Place the child on a mat, or the floor whilst interviewing the caregiver, in order to observe the child's movements and behaviour.

Equipment: Weighing scale, tape measure and otoscope.
Road-to-Health card
Clinic record
Bean-sized object (e.g. a crumpled piece of paper)
Growth charts (weight and head circumference)

Administering the screen:

Ask questions 4 – 15.
If a caregiver does not understand the question, demonstrate the activity with your own movements where possible.

If there is any doubt about an answer to any of the questions, refer to the guidelines for suggested observations examinations for that test item.

If still in doubt, refer for further assessment.

**Note:** In the 18 months screen, do not correct for gestational age in children who were born prematurely.

**Test number:**

**Physical Examination/Observation:**

1. **Weight:** Plot the weight on the growth chart

2. **Head circumference:** Plot the head circumference on the growth chart. The head circumference and weight should be on similar centiles.

   If the head circumference is inappropriately small, or has progressively fallen from the birth percentile, refer for developmental assessment.

   If the head circumference has progressively increased from the birth percentile, refer stat to exclude hydrocephalus.

3. **General Appearance:** Observe for dysmorphic features in body shape, face, ears, hands and feet. Dysmorphism means abnormality of the physical structure (i.e., malformation) of a single or multiple parts of the body. Characteristic patterns of malformations may be recognised as syndromes, for example Down Syndrome or Fetal Alcohol Syndrome.

**Questionnaire and Observation:**

**Gross and Fine Motor**

4. **Walking:** The child should be able to take at least 10 steps unaided. If in doubt: Observe the child walking.

5. **Limb movements:** Observe for asymmetry of movements in the child's limbs. Decreased movement on one side may indicate hemiplegia.

6. **Limb tone:** If in doubt: Observe for abnormal posture (for example limbs abnormally flexed or extended, hands fisting) and examine for floppiness or spasticity.
7. **Pincer grip**: If in doubt: Demonstrate a pincer grip to the caregiver and/or observe the child grasping a bean-sized object (e.g., a piece of paper crumpled to the size of a bean).

8. **Drinks from CUP**: The child should be able to drink out of a cup unaided. This item assesses the child's fine motor ability and psychosocial development (ability to conduct simple tasks independently). If the child still drinks only from a bottle, encourage the caregiver to introduce use of a cup.

**Language and Hearing**

9. **Simple commands**: If in doubt: Ask the child to show you his/her foot or nose. A child of 18 months might not necessarily show you his/her foot, but might respond by looking at the foot. If the child is shy, he/she may respond to the caregiver asking the question.

10. **3 recognizable words**: These words should have meaning (e.g., mama, ball, bye-bye). The words do not need to be phonetically correct, but must be used consistently to indicate the same person or object. The absence of words may indicate a developmental problem, for example deafness, emotional problems or mental handicap.

11. **Turns when called**: If in doubt: Call the child's name and observe his/her response.

   If the answer is 'No' to the language and hearing questions, examine both ears with an otoscope.

   If wax, foreign bodies or pus are not present, refer for a diagnostic hearing test, or if the child turns to sound but cannot point to his/her feet/nose and say words, refer for developmental assessment, as this may indicate mental handicap.

   If pus, wax or foreign body are present this may be the cause of hearing loss. Treat the cause or refer to MO and repeat otoscopy in 2 weeks.

   After 2 weeks if the answer is still 'No' on repeating questions, refer for a diagnostic hearing test and/or developmental assessment as appropriate.

**Vision and Squint**

12. **Watches moving object**: If in doubt: Observe whether the child makes eye contact or follows an object moved in front of him/her.

13. **Squint**: If in doubt: Observe for squint. Note: Wide epicanthic folds can mimic a squint. Sudden onset of squint may indicate a serious condition such as a tumour, and require urgent referral. For non-acute squint refer as per regional policy.
Psycho-social

Note: These questions may not be answerable if the child’s attendant is not his/her usual caregiver.

14. **Plays alone**: Toddlers vary individually in the closeness to, and amount of attention they need from their caregivers, particularly in the presence of new places and people. If not tired, hungry or ill, the average toddler shows interest in exploring the assessment room in the presence of his/her caregiver, rather than being disinterested in his/her environment, clinging to the caregiver, or being fearful or aggressive.

15. **Comes when needs assistance**: The child’s exploration of his/her environment should be balanced by the need for closeness to the caregiver. Look for signs of bonding and response to the caregiver, e.g. showing things to the caregiver; caution when the caregiver points out dangers (plugs, sharp objects) or returning to the caregiver for physical contact. The toddler should not ignore, or show fear or aggression towards the caregiver.

16. **Caregiver’s interaction**: Observe how the caregiver interacts with the child, how the child is held, handled and spoken to. Caregivers who consistently ignore, become annoyed with, or seem unaware of how to respond to children’s needs, may be unable to respond to them because of inadequate parenting skills or psychiatric or psychological difficulties.

Mental Health

17. **Caregiver’s mental health**: The caregiver’s mental health has a profound effect on the child’s development. Ask about post-natal depression and assess whether this has resolved or whether symptoms persist. If in doubt: Refer to the Johnson and Johnson checklist for post-natal depression. Refer to the Mental Health notes: 0 - 6 weeks developmental screening.

18. **Child’s mental health**: In a short interview it may be difficult to assess the child’s mental health thoroughly – for example the child may be tired, ill or teething, and resist caregiver’s attempts to soothe. Children vary greatly, but excessive behaviours in the child may point to potential psychosocial difficulties. Where toddlers are observed to cling and cry excessively; appear depressed; are overactive or are negative or non-responsive to parental interventions, ask for the caregiver’s view of the child’s behaviour. This may establish whether the caregiver has realistic expectations of the child and whether the child’s behaviour is difficult to manage.

PAWC: Department of Health
MCWH Sub Directorate
1999