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**AUTHOR** Mayfield, Margie I.  
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**ABSTRACT**

This report is the third in a series of evaluations of the Native Infant Program, an innovative intervention project designed to promote total development in children from birth through 4 years of age who live in five reserves in the Cowichan Valley near Duncan, British Columbia. The report is organized into three sections. The first briefly describes the program, specifically discussing its objectives and evaluation design. The second and main section includes discussion of the data collected in terms of (1) age and number of children enrolled in the program as of September of 1982; (2) results from the Denver Developmental Screening Test, which was used to assess children's development in the four areas of personal/social, language, and fine- and gross-motor skills; and (3) results of interviews with parents and professionals in the community undertaken to determine attitudes about the program's effectiveness. A summary of the study's major results is provided in the last section. Summaries of the results of the first two evaluation reports are also appended. (MP)

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NATIVE INFANT PROGRAM  
EVALUATION REPORT III

by

Margie I. Mayfield, Ph.D.  
University of Victoria

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## PART I

### INTRODUCTION

This report is the third of a series of evaluation reports for the Native Infant Program. Summaries of the results of the first two evaluation reports are in Appendix A.

The third report is organized as follows:

- (1) a brief description of the program; objectives and evaluation design;
- (2) the presentation of data; and
- (3) a summary of the results.

#### Background

The Native Infant Program for children from birth through four years of age on five reserves in the Cowichan Valley near Duncan, B.C. is an innovative intervention program unique in British Columbia. The innovative aspects of the Native Infant Program are seen in the initiation, implementation and curriculum design: (a) the program was initiated by the Native bands themselves; (b) Native women were trained as infant workers and then employed; and (c) the curriculum combines modern developmental ideas and traditional Native teaching. For a more complete description of the development and implementation of the Native Infant Program, see article by Davies and Mayfield.\*

#### Objectives of the Program

The objectives of the program as listed in the proposal for funding submitted to Employment and Immigration Canada are:

1. That infants develop to their full potential: physically (language skills, gross and fine motor development), emotionally, and intellectually.
2. Provision of parental support and guidance.
3. Arrangement of appropriate referral.
4. Reduction in the number of children requiring special education programs.
5. Workers' maintenance of a high degree of expertise in the field through continued in-service education.
6. Program co-ordination with other services provided to Native families.

The formal, on-going evaluation of the Native Infant Program is based on these objectives.

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\*Davies, G. & Mayfield, M.I. A program for Native infants and families. Day Care and Early Education, 1981, 9, 2, 12-14.

### Overview of the Evaluation

The evaluation of the Native Infant Program was planned and included in the original proposal for funding. The evaluation is intended to serve two purposes. The first is to provide on-going information to the infant workers and parents on a regular basis. The second purpose is to provide the more formal summative information showing the overall level of program effectiveness.

Evaluation of the Native Infant Program is continuous and expanding. The type and amount of information presented on the above objectives will vary from report to report. An important part of this third report is the results of interviews done with the parents of children in the program and with professionals in the community who have regular contact with the program (e.g., public health nurses, community health representatives, social workers, etc.). This information is reported in Part II.

## PART II

### THE DATA

This part of the report presents a description of (1) the children (2) the results from the Denver Developmental Screening Test (3) the results of the interviews with parents and professionals in the community. This evaluation report is organized by the objectives listed in Part I. The first objective deals with the on-going evaluation data from the Denver Developmental Screening Test. These data are reported in each report. Also included under Objective 1 are analyses of a "typical" week of the infant workers as well as a description of some typical activities by the infant workers during a home visit. The results of the interviews with professionals in the community are reported under Objectives 3 and 6. The results of the interviews with parents whose children are in the program are reported under Objective 2.

#### The Children

As of September 1982, there were 156 children in the program (49% are boys and 51% are girls). They range in age from three months to 84 months. The average is 27 months, the median age is 24 months, and the most frequent ages are 23 and 24 months.

This predominance of younger children is appropriate for and typical of infant stimulation programs which have prevention as a goal. The program was planned for children from birth to age 4 as that is the age at which the children begin nursery school on the reserves. Children who are older than 48 months may be included in the program if this is judged to be the best placement for that individual child at this time.

#### Objective 1: Infants develop to their full potential

The primary instrument used in the evaluation of this objective is the Denver Developmental Screening Test (DDST). The DDST is a frequently used developmental scale for young children from birth to six years of age. It assesses four areas of development:

- (1) Personal-Social: ability to get along with people and care for oneself.
- (2) Fine Motor-Adaptive: ability to see, to pick up objects and to draw.
- (3) Language: ability to hear, to understand, and to use language.
- (4) Gross Motor: ability to sit, walk, and jump.

A copy of the DDST is provided in Appendix B.

Scoring of the DDST produces an overall rating of Normal, Questionable, Abnormal or Untestable. To score the DDST, the number of items rated as a delay are counted for each child. An abnormal rating results when there are two or more delays in two or more of the four areas (i.e., Personal-Social, Fine Motor-Adaptive, Language, and Gross Motor). A Questionable rating is (a) one area with two or more delays or (b) one or more areas with one delay and no passes in that area. Normal is any condition not described above.

Table 1 is a summary of the ratings on the DDST reported by the age of the children. There are no "abnormal" ratings at younger than 18 months. This has been a consistent pattern since the first evaluations. The literature in the field of early intervention programs reports this as typical of the pattern of results usually obtained with infants as delays due to environmental factors do not appear typically until later. Eighty percent (80%) of the "abnormal" ratings occur for children over three and a half years of age.

As in the first two evaluation reports, items in the personal-social category are passed most frequently. The number of failures in the fine motor-adaptive category has been reduced from the time of reports I and II; however, as the numbers are relatively small, one cannot state with certainty that this constitutes a trend.

The items failed most frequently that should have been passed by a child of that age are in the areas of gross motor skill and language. Of the gross motor items failed, 60% are items involving standing and walking (e.g., stands alone well and walks well). Of the language items failed, the three most frequent items are (a) points to one named body part (42% of the failures), (b) uses plurals (17%), and (c) gives first and last name (17%). This pattern of failures within the gross motor and language areas has been consistent since the first evaluations done during the first six months of the program. As is documented in the following paragraphs, infant workers are doing on-going remedial work with the children who have difficulties within the areas of gross motor skills and language.



TABLE 1  
Rating on DDST by Age

Age (in months)	Rating on DDST		
	Normal	Questionable	Abnormal.
0-3	5		
4-6	8	1	
7-9	8	2	
10-12	3	2	
13-15	7	1	
16-18	7		
19-21	6		1
22-24	8	1	
25-27	3		
28-30	4		
31-33	5		
34-36	6		
37-39	4	1	
40-42			
43-45	1		1
46-48	1	1	
48+	1	1	3
TOTALS	77	9	5
N=91			



Table 2 is a summary of the ratings on the DDST for children who have been in the program for (a) less than 12 months, (b) 12-18 months, and (c) more than 18 months. While it is interesting that children who have been in the program more than 18 months have the fewest questionable and abnormal ratings on the DDST, the numbers involved are not large enough to draw any definite conclusions.

It is important for an on-going program to document periodically what the infant workers do during a typical week and the approximate amount of time spent on the various activities. In order to document this, the infant workers were asked to keep a log of their activities for five consecutive days in late July. The workers recorded their activities at fifteen minute intervals. The following information is based on the logs of six infant workers.

An analysis of the infant workers' week shows that they spend an average of 24% of their time working directly with children and families (e.g., home visits, and Mom and Tot groups). An average of 27% of their time is spent in administrative duties such as preparing reports, updating logbooks, completing write-ups of DDSTs, locating materials and resources for future home visits, etc.

The third largest block of time is 16% spent travelling. This varies widely depending on the location of the families to be served. The range in percentage of time spent travelling is from 3% for a worker on the Cowichan Reserve to 36% for a worker on Kuper Island whose travelling includes a ferry.

The fourth largest block of time is 14% for lunch and breaks. The most typical daily pattern for all workers is an hour lunch period and one fifteen minute coffee break usually in the morning.

Approximately 6% of the infant worker's time is spent consulting with other professionals either in person or by telephone. The professionals most frequently contacted by the infant workers are the public health nurses and the community health representatives. Other professionals contacted included family doctors, pediatricians, and social workers.

Of the remaining time, 3% is spent in in-service activities (usually Friday mornings), 4% is "down-time" (i.e., time wasted because of unforeseen changes of plans such as parents not being home or the child being ill so the home visit must be cancelled), and 6% of the infant workers' time could not be

TABLE 2

Rating on DDST and Length of Time in Program

Rating on DDST	Length of Time in Program						Totals	
	Less than 12 months		12 - 18 months		More than 18 months		N	%
	N	%	N	%	N	%		
Normal	32	88.9%	27	77.1%	18	90%	77	84.6%
Questionable	3	8.3%	5	14.3%	1	5%	9	9.9%
Abnormal	1	2.8%	3	8.6%	1	5%	5	5.5%
Total	36	100%	35	100%	20	100%	91	100%

accounted for from the logbooks.

During this week being analyzed, some of the activities of infant workers during the home visits included:

- stacking plastic cubes and containers with child
- encouraging child to scribble
- looking at simple picture books with child and naming the pictures
- encouraging child to reach for an object
- having child copy O, X, etc.
- playing ball with child to develop motor skills
- playing a game naming body parts
- demonstrating peek-a-boo, patty-cake, etc.
- checking if child has had scheduled immunizations
- referring child to pediatrician because of possible hip/leg problem
- giving Denver Developmental Screening Test (DDST)
- explaining results of DDST to parents
- discussing normal growth and development of children with parents including advice on talking to child, toilet training, beginning solid food, cradle cap, using positive reinforcement
- demonstrating to parent how to pull child to a standing position to facilitate walking
- giving mother printed materials on birth control
- reassuring parent about child's development

As can be seen from the above list, the infant workers work with the child and also advise parents as necessary (see Objective 2 for parents' comments). The work with the children frequently includes activities designed to foster development of language and motor skills which have been two areas of particular concern in terms of preventing delays in this particular group of children.

#### Objective 2: provision of parental support and guidance

To accomplish this objective, the infant workers are working with the parents to increase the parents' knowledge of infant and child development and needs. The development of effective parenting skills is important especially as many of the mothers of the infants are likely to be teenagers who are lacking necessary parenting skills.

During the period of January-August 1982, the infant workers made 2,142 home visits to children and their families as well as conducting 48 group sessions (e.g., Mom and Tot groups). Also, contact with parents is maintained by telephone calls, hospital visits, informal conversation, etc. The average number of home visits per month so far in 1982 is 20 more than the average per month in 1981. This increase reflects the growing number of children in the program.

In order to determine the parents' perceptions and opinions of the program, semi-structured interviews were done during August and September. Twenty-five parents were interviewed by Ruth Elvey\*. The original sample of parents to be interviewed was selected randomly in proportion to the relative size of the bands. Due to problems in locating parents to be interviewed on the Malahat Reserve (i.e., 3 parents were not at home and 1 stated she had not been visited since birth of the baby), other parents were substituted. Of the parents interviewed, 14 were Cowichan, 5 were Penelakut, 3 were Chemainus, and 3 were Halalt. The criteria for selection to be interviewed were that (a) the child had been in the program a minimum of one year (several families interviewed had been in the program since the beginning), (b) the parent be willing to be interviewed and (c) be available at the time. The sample used reflected the age range of the parents in the program.

The interviews were not rigidly structured so that the parent could discuss topics of personal interest and concern related to the program. In general, the goals of the interview were to determine:

- What the infant worker does during a typical visit
- What the parents have learned or do differently as a result of the program
- What effect, if any, the program has had on the child or family
- What the parents like about the program
- What the parents do not like about the program
- What changes in the program the parents would suggest
- Would the parents recommend this program to other parents.

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\* Special thanks is given to Ruth Elvey, Psychologist, Health and Welfare Canada for the conscientious effort and time she gave to conducting these interviews. Without her help, this information would not be available.

Approximately half of the parents interviewed commented on what the infant worker did during her visits. The parents mentioned most frequently playing with the children, bringing toys for the children, showing parents how to work with child, assessing child, and providing information and advice. The parents commented on the same activities that were recorded most frequently in the infant workers' logbooks.

Seventy-two percent (72%) of the parents interviewed commented on what they had learned or do differently as a result of the program. Over half of the parents responding to this topic mentioned learning more about children and being surprised or not knowing how much young children can learn. Other things parents learned about or do differently included: educational toys, how to encourage sitting, more awareness of what child is doing, how to do exercises with child, how to teach child the names of colours, help with discipline problems, not comparing children, and that their child is not slow. Two parents stated they hadn't learned anything.

In terms of any effect the program has had on the child or family, 44% of the parents interviewed mentioned some positive effect. Only one thought there had been no effect. The effects mentioned included: increased interest in child by father, the younger child is developing at a faster rate than older sibling had at that age, parent is doing similar things for older child, parent is reading more to youngest than did for older children, parent is teaching child now rather than waiting for school to do it, father's increased expectations of child for higher education, and reassurance of own competence as a mother. One mother claimed she would have had a nervous breakdown but the infant worker helped her. The research on other home-based programs mentions the effect of such programs on siblings and other family members as well as increased parental expectations for the child.

Eighty-four percent (84%) of the parents interviewed mentioned specifically what they liked about the program. Of this 84%, 24% mentioned the child enjoying the infant workers' visits and 29% mentioned that they enjoyed the visits. One mother reported that her children "sneak off to see the infant worker." Another mother said that her two year old anticipates the infant worker's visit and stands by the door every Monday morning looking for "Aunty." Other comments about what parents like about the program included: the infant workers' coming

to the home, the reassurance that the child is developing normally, the toys brought by the infant worker, the infant worker keeping track of the child's development, the Mom and Tot groups, having the infant worker to talk to, and the prevention of child abuse because of the program. One grandmother commented that she wished there had been a program such as this one when her children were young. The parents interviewed seemed pleased with the infant workers and what they are doing. One mother commented that the infant worker was a real asset to the community.

Seventy-two percent (72%) of the parents interviewed did not mention disliking anything about the program. Of the 28% who mentioned something specific that they did not like about the program, the most frequent response was the lack of visits on a regular basis. Two mothers commented that they had not been visited recently; another wanted more visits; and another said the infant worker didn't keep appointments. One mother commented that the parents didn't know what the program was about while another mother said the infant worker incorrectly assumed that help was not needed.

The majority (56%) of the parents interviewed gave specific suggestions for improving the program. Of this 56%, 43% wanted more visits. Several mothers suggested regular, weekly visits as the ideal. Two mothers wanted more group meetings (e.g., Mom and Tot). One mother suggested the addition of a swimming program. Another mother suggested that the infant workers leave more of the toys with the child to play with between visits.

Three-fifths (60%) of the parents interviewed mentioned that they had recommended or would recommend the program to other parents. Three mothers stated that the program is especially helpful for the younger mothers.

In summary, the interviews of the parents showed that the majority of the parents (a) were aware of what the infant workers did, (b) had learned or did things differently as a result of this program, (c) liked the program, (d) did not mention anything specific they disliked, (e) had specific suggestions for improving the program (usually more visits), and (f) had or would recommend the program to other parents.

Since the beginning of the program the infant workers have been recording parents comments (positive and negative) about the program. The pattern of these comments has changed since the beginning of the program. Comments during the first month of the program (January, 1981) reflected parents' confusion over the purpose of the program. Some comments included:

- Here comes the lady who's going to give you a poke.
- I have eight kids. I should know by now.
- When will you be picking up my baby?

During the next six month period the typical parent comments were more oriented toward the program and the services and information it provides. Some comments included:

- The book you left me, I'm finding it very interesting.
- When is your next Mom and Tot group?
- Where is a good place to buy toys?

The comments of parents recorded by the infant workers during these last six months, show an increasing parental emphasis on the child and what the child(ren) can do. Some recent comments included:

- A father stated, "Gee, son, I didn't know you could do that!"
- A mother stated she wished this program was available nine years ago. She definitely notices a difference between her youngest daughter and the oldest son.
- A mother stated, "My son has finally taken his first steps." The mother was very happy.

### Objective 3: Arrangement of appropriate referral

Children who are not progressing and who can benefit from further professional help are referred to other agencies as necessary. Also, family members with problems are referred to other agencies as needed. During the period of January-August 1982, six referrals were made.

An important source of information about the program is the professionals in the community who have regular contact with the program. In order to gather such information, the author of this report interviewed 8 community health representatives, 2 public health nurses, 1 pediatrician, 1 registered nurse (pediatrics), 1 social worker and 1 special education teacher. Eight of these

people were interviewed in person during August. The other six were interviewed by telephone during September and October. Each person was asked the following questions:

- 1) What do you see as the strengths of the program?
- 2) What do you see as the weaknesses of the program?
- 3) What changes would you like made in the program?
- 4) Does this program have any effect (positive or negative) on the Native children and families? If yes, what?
- 5) How are your services coordinated with other services provided to Native families?
- 6) Do you see any problem with this coordination? If yes, what and how could it be resolved?
- 7) What do you see as the future of this type of program in Native communities?

(The responses to questions 5 and 6 are reported under Objective 6).

When asked to identify the strengths of the Native Infant Program, the community health representatives (CHRs) tended to emphasize the help given to parents especially young mothers and the preventive nature of the program. Some representative comments were:

"We are getting the little ones and things never noticed before like slow in speech."

"... taught mothers a lot they didn't know ... If I knew then I would have been a better mother."

"... good source for new mothers."

"The infant worker has made my job easier."

The public health nurses (PHNs) also commented that their work load had been reduced because of the work of the infant workers. In terms of relative salaries, this is cost effective for public health. The PHNs commented that they did not have the time to provide all the services the infant workers can provide in addition to their normal work load. An example of this is that it is easier, in part because of increased access to families, for the infant workers to identify delays in hearing and gross motor skills.

The PHNs, registered nurse, and social worker all stated that a strength of the program is having Native women working with Native families in their homes in a voluntary, non-threatening, positive way. All the medical professionals and the social worker mentioned that the Native infant workers have greater and more frequent accessibility to families and may have more influence on



certain families than other professionals.

Other strengths of the program mentioned by various individuals included: teaching of parenting skills, helping mothers get closer to children, helping develop skills needed for school success, another source of counselling for parents, good group of infant workers who do not resent being told things, increasing awareness of the importance of being a parent, the good relationship of the infant workers with other professionals and the attitudes and motivation of the infant workers.

All of the professionals interviewed volunteered the comment that they thought the program was "good", "nice", "great", "a good thing" or "an excellent idea." In summary, the professionals in the community who have regular contact with the Native Infant Program think it has definite strengths and the total concept is a good one.

When asked to identify the weaknesses of the program, the professionals interviewed most frequently mentioned (a) the confusion and lack of knowledge of the parents and in the community as to what exactly the program is, and (b) the problems of communication and coordination (this is discussed under Objective 6). Several people commented that the infant workers need to be more visible and the program needs to be more widely publicized in the community. Other weaknesses mentioned by individuals included: visits not frequent enough, parents not always cooperative, amount of travel of some workers because of distances, need for more nutrition counselling, parents not keeping appointments, infant workers not keeping appointments, need for continuing in-service education, need for more leadership and encouragement, and need for infant workers to feel less isolated from other band staff.

Specific suggestions for the remediation of these weaknesses were mentioned by the professionals in their responses to the question "What changes would you like made in the program?" The most frequent suggestion for change was to improve and increase communication about the program to parents and the community as a whole. It was suggested that the program could be explained more fully to individual parents. One CHR suggested the use of a brochure or short write-up describing the program and its purposes. Such a brochure could be easily disseminated to new mothers in hospital, and to future mothers by inclusion in

the prenatal package. It was suggested that an explanation of the program emphasize that such a program can be valuable for all babies not just Native children. One CHR reported that some mothers think their child is in the program "because the kid is dumb." A concerted effort by the infant workers may be necessary to clear up misconceptions that already exist among parents, and prevent future misunderstandings from occurring.

In terms of increasing community awareness and knowledge of the program, several people suggested the need for more publicity about the program. Some suggestions for increasing this community awareness included the use of public health group's newsletter, talks to community groups (e.g., Kiwanis, church groups, Rotary, etc.) by the infant workers and/or advisory board members, and distribution of printed material about the program.

The other frequently suggested change needed was for increased coordination of communication among the professionals in the community and the infant workers. This is discussed under Objective 6. Other suggested changes to improve the program were (a) to increase the number of infant workers, (b) to more thoroughly explain the Denver Developmental Screening Test and the results to parents, (c) to provide more continuing education for infant workers, and (d) to increase funding.

When asked if the Native Infant Program has any effect (positive or negative) on the Native children and their families, the responses of the professionals interviewed can be summarized in the statement of one CHR: "I see lots of positive things." Some of the positive effects mentioned were:

- mothers reporting being pleased with changes in their family and child
- children being better prepared when they go to nursery school
- nursery school and kindergarten teachers report seeing positive changes in the children
- parent asking infant worker to see another child in the family
- the reinforcement of what CHRs tell families
- nutrition has improved
- families are more aware of children's needs
- parents are wanting to see more preschool programs because they have learned the importance of early stimulation
- increased stimulation of children on the more isolated reserves.

One rather humorous effect of the program was reported by a PHN who said that she could always tell when an infant worker had been in the home because the baby immediately and quickly crawled to the nurse's bag and looked for a toy.

Each professional interviewed was asked what they saw as the future of this type of program in Native communities. The CHR's and PHN's were unanimous in their support. Their comments were:

- "Most valuable program we ever got. First one that's ever been successful on our reserve."
- "Yes, it will help our children."
- "Beautiful program."
- "Great program."
- "Necessary and desirable especially where there are a lot of young mothers and mothers interested in trying something new."
- "Fantastic."
- "For any community and every community, I'd say."
- "A super program."

The other professionals interviewed commented:

- "The program is very valuable."
- "I'd like to see it continue. If it's worth doing, do it well. Increase the funding. If more is put into it, it can be useful. A pity to scrap it."
- "I'm not sure."
- "I think it's made quite a difference in this community."

In summary, as with the parents interviewed, the professionals in the community who were interviewed think the program has positive effects and is useful and valuable. Several suggestions for possible improvements were made.

Objective 4: Reduction in the number of children requiring special education programs.

This is a long-term objective and any formal evaluation of this must be done in the future. One community health representative volunteered the information that "Before the program, we had children in kindergarten for three years because of problems. This year no failures in kindergarten; all are going into Grade 1." This is a potentially significant piece of information. Although it may be too

early and the number of children too small to claim this is a trend, it bears monitoring.

Objective 5: The workers will maintain a high degree of expertise in their field through continued in-service education

Regular in-service education has been implemented (see report for January-August 1982 in Appendix C). More in-service opportunities are planned for the future. The Project Director will continue to assess the infant workers' needs and to plan in-service education to meet these needs.

Objective 6: The program will be co-ordinated with other services provided to Native families.

When the 14 professionals in the community who have regular contact with the Native Infant Program were asked about the coordination of services and if there were any problems in this coordination, 11 indicated that there were some problems. The three professionals who did not think there were problems indicated that their situations were not typical in that (a) the infant worker and CHR worked out of the same office, (b) the reserve was small and communication easy, or (c) the CHR and infant worker were from the same family.

Of the 11 professionals who indicated there were problems in coordination of services, the following needs were identified:

- the need for regularization of referral procedure (i.e., determining who is responsible for what)
- the need for regular monthly meetings with CHRs and PHNs
- the need for more and regular contact with pediatrician, pediatric nurses, social worker, and child development centre staff
- the need for coordination of information being distributed to families (e.g., some of the information on nutrition distributed by the infant workers gives different advice than that distributed by the CHRs and PHNs)
- the need to reduce overlap of services (e.g., same information is being given by CHRs, PHNs, pediatrician, nurses, and infant workers)
- the need to share the results of the DDSTs and to routinize the process so that children are not missed and that everyone who needs the results has access to them.

Some of the suggestions of these professionals to meet these needs included:

- routine, scheduled meetings
- attendance of infant workers at case conferences involving families in the program
- increased follow-up of referrals via telephone and/or letter
- attendance at monthly meetings (last Monday of month) of CHRs and PHNs
- increased of visits to and discussions with pediatric nurses at the hospital

## PART III

### SUMMARY

This report is the third of a series of evaluation reports for the Native Infant Program. It contains the assessment of the children as well as information from interviews with parents of children in the program and from professionals in the community who have regular contact with the program.

As of September 1982, there were 156 children in the program (49% are boys and 51% are girls) ranging in age from three to 84 months with a median age of 24 months.

The overall ratings of the children on the Denver Developmental Screening Test (DDST) were 85% Normal, 10% Questionable, and 5% Abnormal. This is a similar pattern to that reported six months ago. In this assessment, there is only one Abnormal rating at ages younger than 43 months.

As in the first two evaluation reports, items in the personal-social category of the DDST are passed most frequently. The number of failures in the fine motor-adaptive category has been reduced. The items failed most frequently are in the areas of gross motor skill and language. This pattern is consistent with the results since the first evaluations. Information from the infant workers' logbooks and interviews with the parents document that the infant workers are doing activities with the children to remediate these difficulties.

The infant workers were asked to keep a logbook noting what they did every 15 minutes for one week in July. The analysis of six infant workers' logbooks showed that an average of 24% of their time was spent working directly with children and families; 27% in administrative duties, 16% travelling, 14% for lunch and breaks, 6% consulting with other professionals, 3% in in-service activities, 4% in "down-time" (i.e., time wasted because of unforeseen circumstances), and 6% unaccounted for.

A listing of the activities of infant workers during home visits included working with the child and advising parents. The activities reported in the logbook are the same types of activities parents reported the infant workers doing.

An analysis of the results of interviews with a sample of 25 parents from four bands showed that the majority of parents (a) were aware of what the infant workers did, (b) had learned or did things differently as a result of this program, (c) liked the program, (d) did not mention anything specific they disliked, (e) had specific suggestions for improving the program (usually more visits), and (f) had or would recommend the program to other parents. Overall, the parents are very supportive of the program and the infant workers, and believe the program is valuable and is helping the children and the families in a variety of ways.

Another important source of information about the program is the professionals in the community who have regular contact with the program. An analysis of the results of interviews with eight community health representatives, two public health nurses, one pediatrician, one registered nurse (pediatrics), one social worker, and one special education teacher showed that, as with the parents interviewed, these professionals think the program has positive effects on the children and families, and is useful and valuable. Suggestions for possible improvements were made: most of these related to increasing communication about the program to parents and the community as a whole as well as improving communication between the professionals in the community and the infant workers.

These professionals identified strengths of the program such as the help it provides to parents especially younger mothers, the preventive nature of the program, the positive emphasis of the program, and the greater access to families and often greater influence of the infant workers. The professionals stated that the Native Infant Program was a good idea, had definite positive effects on the children and families, and thought that this type of program should be continued and expanded.

## APPENDIX A

SUMMARY OF EVALUATION REPORT I  
September, 1981

This report is the first of a series of evaluation reports planned for the Native Infant Program. It contains initial evaluation information as related to the six stated objectives of the program.

As of August 1981, there were 131 children in the program. This evaluation reports on the 67 children for whom test results were available as of August 31, 1981. Of the 67 children, 36 are boys (54%) and 31 are girls (46%) ranging in age from one to 68 months. There is a predominance of younger children (1 - 24 months) which is appropriate for, typical of and desirable in an infant stimulation program aimed at prevention.

The overall ratings of the children based on the results of the Denver Developmental Screening Test were 90% Normal, 7% Questionable, and 3% Abnormal. There are no Abnormal ratings at ages younger than 16 months which is typical of the pattern of results usually obtained with infants.

When the frequency of individual items failed (i.e. 90% of an age group would be expected to pass) is examined, Gross and Fine Motor items are most frequently failed by the group as a whole. When these data are broken down further by age groups, the highest frequency of delay in these areas of Fine and Gross Motor is in the age group 7 - 9 months.

At a 50% level (i.e. 50% of the children of a specific age would be expected to pass an item), the most frequent area of failed items is Gross Motor with the highest frequency of delay at the ages of 7 - 9 and 10 - 12 months.

When a list is made of the specific items that are not passed by half or more of the children at an age when 50% would be expected to pass, the item, six items are in Language, six in Gross Motor, four in Fine Motor-Adaptive, and one in Personal-Social. The items failed in the Language area are expressive language items not receptive ones. The Gross Motor items are those of walking and standing. These are skills that can be improved with practice and parental encouragement and help. This has implications for the parents and infant workers.

Parental support and guidance is being provided by means of home visits (1,535 from January - June, 1981) as well as group sessions. A recent indication of parent/family support for the program is that 14 of the last 22 referrals of children to the program were made by members of the child's family. When needed, referrals are made to other agencies such as Medical Services, Human Resources, Children's Place, Nanaimo Child Development Centre, nursery schools, doctors, public and mental health



personnel.

The objective of reducing the number of children requiring special education programs requires future longitudinal assessment.

The infant workers attend in-service sessions on a regular basis. Recent topics have included child growth, evaluation, parenting skills, administrative functions and counselling. More in-service work is planned for the future.

Co-ordination of the program with other agencies is undertaken when necessary. A detailed analysis of this co-ordination and the referrals mentioned above will be undertaken in the future.

APPENDIX A  
SUMMARY OF EVALUATION REPORT II  
March 1982

This report is the second of a series of evaluation reports planned for Native Infant Program. It contains the assessment of the children at the end of six months in the program as well as first year information related to the objectives of the program.

As of December 1981, there were 131 children in the program. This evaluation reports on the 54 children for whom second (i.e., six month) test results were available as of February 1982. Of these 54 children, 56% are boys and 44% are girls ranging in age from seven to 59 months with the average age of 22 months.

The overall ratings of the children on the Denver Developmental Screening Test were 87% Normal, 9% Questionable, 2% Abnormal, and 2% Untestable. This is a similar pattern to that reported six months ago. In this second assessment, there were no Abnormal ratings at ages younger than 37 months; the first assessment had one Abnormal rating at 16 - 18 months.

When the frequency of individual items failed (i.e., 90% of an age group would be expected to pass) is examined, Fine and Gross Motor items are most frequently failed by the group as a whole. This is the same pattern reported six months ago.

At a 50% level (i.e., 50% of the children of an age group would be expected to pass an item), the items failed most frequently were in the areas of Gross-Motor and Language. Gross-Motor items were failed most frequently six months ago as well.

When a list is made of the specific items not passed by half or more of the children at an age when 50% would be expected to pass the item, 10 items are in Gross-Motor, eight in Language, four in Fine-Motor and one in Personal-Social areas. Two-thirds of the Gross-Motor items involve walking and/or standing. There has been an increase in the number of children failing an increased number of Language items compared to six months ago. There is no longer such a distinct pattern of failure of expressive language items rather than receptive items.

Parental support and guidance is being provided by means of home visits (2,973 from January - December 1981) as well as group sessions. An indication of parent/family support for the program is the continued referral of children to the program by members of the child's family.

From January - December 1981, 68 children were referred to other agencies for help (e.g., public health nurse, pediatrician, Child Development Centre, nursery school, physiotherapist, etc.). During this same time period 14 family members were referred to outside agencies (e.g. family physician, public health nurse, Planned Parenthood, etc.). Provision has been made to co-ordinate these services when necessary.

The infant workers attend in-service sessions on a regular basis. This evaluation report included information about the infant workers' perceptions of the infant training course. The infant workers were unanimous in their support of the training course and their satisfaction with it although they think it could be improved by increasing the amount of practicum time. In addition to expanding their knowledge of children and their professional skills, the infant workers also reported on their increasing personal growth (e.g., self-confidence, and personal satisfaction) as a result of their training and job experience during the first year of the Native Infant Program.

The third evaluation report is planned for September 1982.

## Appendix B

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## Appendix C

## JOINT BANDS NATIVE INFANT PROGRAM

BAND: Total for all bands

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
CASELOAD	131	130	135	136	162	167	170	156
HOME VISITS	253	291	285	261	266	326	282	178
GROUP SESSIONS (M & T GROUPS) (BABY CLINICS)	1	8	6	2	12	13	6	0
INSERVICE/WORKSHOPS	6	1	6	0	9	0	0	0
CONTACTS: TELEPHONE/LETTERS TO CONSULTANTS/PARENTS	33	34	57	52	47	38	45	42
REFERRALS TO AGENCIES	1	2	1	0	0	1	1	0
MEETINGS - COMMITTEES	18	30	29	25	31	29	27	31
D.D.S.T.	6	10	19	14	12	15	14	13
REPORTS	4	8	20	8	9	16	17	4
PUBLIC SPEAKING ON PROGRAM	0	0	0	0	0	0	3	0

Prepared by Diana Elliott