

**FINAL REPORT  
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**WHEN THE BOUGH BREAKS:  
PROVIDER-INITIATED COMPREHENSIVE CARE  
IS MORE EFFECTIVE AND LESS EXPENSIVE FOR  
SOLE-SUPPORT PARENTS ON SOCIAL ASSISTANCE  
- FOUR-YEAR FOLLOW-UP -**

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## ABSTRACT

Health promotion, employment and social reform interventions have been proposed as preventive strategies for families living in poverty. Questions remained about the most cost effective and beneficial mix of care including health promotion, social service, child care/recreation skills development and employment programme interventions and the extent to which any of these provider-initiated versus self-directed efforts with parents receiving social assistance improved outcomes for themselves and their children. The rationing of community public health and social assistance services at a time of growing caseloads allowed for a natural comparison of the effects of the mix of full spectrum of provider-initiated services with the effects of client-directed use of these services.

The purpose of this evaluation of 765 households with 1,300 children and youth (0-24 years) eligible for and receiving social assistance was to assess the costs, effects and benefits of adding a mix of provider-initiated interventions to clients- self-directed use of health and social services available in a national system of health and social insurance. The interventions were (Group I) "case management" (problem-solving) health promotion intervention for parents, with a recreation/skills development intervention for children, with the full spectrum of social assistance, employment retraining/child care services compared to Public Health Nursing alone (Group II), employment retraining alone (Group III), age-appropriate subsidized child care/recreation alone (Group IV) and self-directed use of these services (Group V). The case-management intervention was provided as a home visit by public health nurses seconded to Regional Social Services. The Public Health nurse planned to engage, empower, enhance and enable the families' creation and choice of social and health opportunities for themselves and children. The age-appropriate recreation/skills development programme was provided by local YM/WCA's in alliance with 21 youth-serving agencies. Employment-retraining/child care was provided by regional services and was largely unavailable (except in this trial) to the single parent mother.

Consenting parents received measures that included the Kessler, 1993, University of Michigan - Composite International Diagnostic Interview (UM-CIDI) measure of nine mood states, the Weissman, et al., 1983 Measure of Social Adjustment, the Gorlick, 1991 Measure of Parent Exit Behaviour, Moos and Billings, 1984, Indices of Coping, the Offord, 1983(87) Ontario Child Health Study (OCHS) Survey Diagnostic Instrument Measure of Childhood Adjustment, (or the Minnesota Infant Development Inventory or the Early Child Development Inventory depending on age), the Achenbach, 1991 Measure of Child Competence and the Browne, et al., 1990 Measure of Health and Social Service Utilization. Parents' and children-s use of other community programme opportunities were also monitored.

Some 45% of the original 765 sole-support parents receiving social assistance were depressed at baseline with co-morbid psychiatric, social adjustment, poor coping behaviour, and with children who were themselves more often than children of a non depressed parent, suffering from social, emotional, hyperactive disorder (Year I Interim Report).

Two years after exposure to provider-initiated versus self-directed mixes of health promotion, recreation (child care), or employment retraining along with income maintenance services, 47% of 765 parents were retained in the analysis (N=361 parents and their 641 children who resided at home). Participants tended to be somewhat more impaired than those lost to the two-year follow-up. The five intervention groups remained comparable in characteristics at baseline. Thus dropouts did not affect the comparability of groups at baseline but did affect the representativeness of respondents such that a more disadvantaged group of parents were retained in the two-year follow-up.

At the two-year follow-up, the 5 group analysis was unable to reject the hypotheses of no difference. The study had the sample size and power to detect a clinically important difference between at least 2 groups. A 2 group analysis compared the comprehensive mix of the all services group with the self-directed care group. Sole-support parents in receipt of social assistance and in a system of health and social entitlement services, two years after exposure to comprehensive provider-initiated (Group I) versus self-directed (Group V) mixes of service, showed a greater economic adjustment ( $p=.03$ ) and lower percent of persons using social assistance in the previous 12 months, 75% versus 90% compared to the self-directed care ( $p=.02$ ). In short, comprehensive, provider-initiated care was more effective in promoting parent economic adjustment and is less expensive to funders because it reduced the use of social assistance within the first year. There are considerable returns on an investment by funders in comprehensive care for sole-support parents on social assistance within one year not seen in other diluted approaches to care.

At two years, a 15% difference in non use of social assistance in the previous 12 months for mothers with 3 or more children favouring comprehensive care translated into a savings of \$20,000 Cdn. (income maintenance, rent subsidy, subsidized child care, medications, dentist) x 15 of every 100 mothers = \$300,000 savings within 1 year for every 100 mothers served, in excess of cost providing comprehensive care to all mothers and their children. Returns on the investment were considerable and immediate.

In the final four-year follow-up, 78.5% of the 763 families originally allocated were located (N=599) and completed questionnaires. By four years, all five study groups were equivalent in the:

10. 57% to 66.9% of respondents who reported having exited from social assistance ( $\chi^2(4)=3.32, p=.51$ );
11. degree of improvement in parental social adjustment ( $F_{4,593}=.55, p=.70$ )
12. corresponding reduction in per parent annual expenditures for use of all other health and social services ( $kw=7.53, p=.11$ ); and
13. reduction in child/youth behaviour disorder scores

However, the child care/recreation alone group was associated with the lowest per child annual expenditures for use of health and social services four years after intake (\$908±\$2,041) even after including the cost of recreation. In comparison, the per child annual expenditures for children's use of services of parents allocated to receive

employment retraining were the highest of the five groups four years after intake (\$2,715 ± \$8,820), a three-fold difference, where  $\chi^2(4)=21.91$ ,  $p=.0002$ .

Age-appropriate quality child care and recreation for children on social assistance results in a 10% greater exit of parents from social assistance within one year, maintains the academic, social and physical competence of children with baseline behaviour disorder at two and four years, and pays for itself within one year because of reduced use of professional and probationary services and after four years, not only continues to pay for itself but results in one-third the annual per child health & social expenditures when compared to children of parents receiving employment retraining . . . a win, win, win situation.

While type of treatment group was associated with a greater proportion of parents exiting social assistance **within one year**, variables that predict exit from social assistance four years later did not include treatment group. Rather, those who took a college course in the last 12 months, were of Canadian ethnicity and recent recipients of general welfare assistance and therefore had worked for pay in the 12 months preceding the study were, on average,  $2\frac{1}{2}$  times more likely to be off social assistance four years later.

Ongoing and intensive intervention is needed by some sole support parents on welfare whose financial difficulties coexist with social/emotional/physical health challenges.



# INTRODUCTION

## Background

Landmark decisions have been reforming the process of providing social assistance<sup>1-3</sup>, child care<sup>4</sup> and health care<sup>5-9</sup>. Surveys, studies<sup>10-18</sup> and reforms at the local, provincial and national levels<sup>1-9,19,20</sup> reflect the hard work, self criticism and innovation needed to effect major change in the cycle of poverty.

Poverty and its deleterious consequences on adults and children are well understood<sup>7,10-18</sup>. Poverty can coexist with unrecognized, untreated and undertreated mood disorders (depression and anxiety)<sup>21</sup> which is estimated to be 22%-33% of the general population<sup>22</sup>. Mood disorders can affect parent's capacity to work, parent and ability to benefit from counselling or social assistance services. This medical (biological) circumstance of mood disorder alone can lead to situations of high risk and high demand for all types of social, child care and health services with or without the presence of poverty. When both poverty and mood disorder are present in parents, the risk for children could be synergistic. Social services in isolation of health and medical care could be of less benefit if the parent suffers from these medical (mood) circumstances<sup>23</sup>.

This is a time of economic restraint, service cuts, growing poverty and childhood problems. There is a need to coordinate and target health promotion<sup>5-9,24-32</sup>, social assistance<sup>1-4,19,33-40</sup> and/or subsidized quality child care services<sup>41-44</sup> and recreation<sup>15-18</sup> based on evidence about the most effective and efficient mix of service strategies for whom. Which combination of services in a system of national health and social insurance helped what types of parents and children at risk described by their further mental health and resilience characteristics? Service cuts allowed a natural comparison of the effects of the full spectrum of provider-initiated services with the effects of a substantial reduction and self-directed use of these same services. An analysis of the interactions between type of treatment and person characteristics would lead to conclusions about who benefits from what service packages.

## Objective

The object of this study was to assess the effects\* and expense\*\* of a mix of provider-initiated (1) case management (health promotion) (2) employment retraining of strategies for parents and (3) a recreation/skills development strategy for children compared to any intervention alone and further compared to self-directed use of these same services.

♦ Hewlett, S.A. When the Bough Breaks: The Cost of Neglecting our Children. Harper Perreniel, 1992.

\* Effects

Primary Outcomes:

- i) Mental Health Status
    - # Childhood Adjustment - measured using Offord's Ontario Child Health Survey, 1987 modification of the 1983 Achenbach Measure of child adjustment for comparison to Ontario norms.
    - # Parent Adjustment - Weissman's, et al (1983) Measure of Social Adjustment: Leisure, Domestic, Vocational.
  - ii) Productivity
    - # Child Competence (Achenbach, 1991) at T<sub>3</sub>
    - # Parent Exit Behaviours: months of job training/months to employment (Gorlick, 1991).
- \*\* Expense to society equals expenditures on intervention programmes minus savings from such programmes.
- i) Expense - refers to the additional dollar value of resources deployed to provide the municipal social service employment retraining programmes with and without the additional dollar value of public health resources deployed to provide the health promotion intervention. In addition, for children enrolled in subsidized or informal child care and/or recreation in any arm of the trial, their attendance times the dollar value of these resources are tallied. The sum total costs to society of the interventions for parents and children accrues to different government, ministerial and municipal points of view.
  - ii) Savings are defined as expenditures averted due to a reduced need for social or therapeutic services.
    - # Months to Financial Independence - where the reductions in the length of time on assistance and family benefits between groups is multiplied times the dollar value of the benefit (which depends on the family constellation and size) equals the dollars saved due to the intervention.
    - # More Appropriate Use of Health and Social Services - the 1990 Browne, et al. Health and Social Service Utilization Inventory is used to tally the frequency of using all types of health and social services by all members of the family. The two week frequency is annualized and multiplied times the dollar value of the service and summed as a per family dollar measure of utilization compared between the three groups.

## Study Questions

### Primary Question

In a system of national health and social insurance,

1. What were the two and four-year effects and expense of various mixes of provider-initiated versus self-directed health promotion and social assistance services for parents with and without mood disorders?
2. What characteristics of parents and children on social assistance at baseline (including their moods or conduct behaviours) worked independently or in combination with treatment strategies to explain exit from social assistance two and four years after exposure to one of five mixes of service?

### Secondary Questions

3. What is the comparative two-year prognosis for children and their parents with and without parental mood disorder who receive no additional provider-initiated health promotion or child care other than that they initiated on their own?

## PRESENT STATE OF THE KNOWLEDGE

### Prevalence of Mood Disorder, Low Access to Health Care and Economic Restraint Affecting Supply of Services

Unrecognized, untreated and undertreated mood disorders extract an inordinate human and economic cost despite the availability of an extensive array of effective pharmacological and clinical interventions<sup>21</sup>. The lifetime prevalence of this disorder in the general population is 33%<sup>21-23,45-51</sup>. Today, 80% to 90% of persons with major depressive disorder can be successfully treated, yet only about one person in three who suffer from a depressive disorder ever seeks treatment in the general or specialty mental health sector<sup>21</sup>. Even when help is sought, current evidence suggest depression (the most prevalent of mood disorders) is poorly recognized, undertreated or inappropriately treated by the health care system<sup>21-23</sup>. Only one-third of those referred to mental health professionals in the U.S. had received any anti-depressants and only one in ten of these received adequate doses. Half of those referred were on anxiolytics instead of anti-depressants<sup>45,46</sup> in spite of the evidence of the efficacy of antidepressants plus brief supportive therapy or counselling in depression<sup>21-23</sup>.

Epidemiologic Catchment Area Programme findings revealed that the rate of affective disorders in U.S. women is twice that for men; that persons age 25-44 are at the highest risk and that individuals who are separated or divorced are two and a half times

more likely to suffer depressive disorder than individuals who are married<sup>46,47</sup>. We noted that depressive disorders with known efficacious treatments<sup>21-23,48-51</sup> were concentrated (at 45%) in sole-support parents receiving social assistance and are under recognized in this population<sup>52</sup>. The lack of problem-solving and emotional reactivity that accompanies untreated mood disorder affects parental and family functioning which adversely affects children<sup>52</sup>. It follows that if mood disorder could be recognized and treated, children would benefit.

In our local area within a system of national health insurance, there was low use of the health care services by recipients of social assistance (15%-20%)<sup>53</sup>. A sizeable portion of these are parents with children (40%)<sup>53</sup> most of whom are women (85%). In addition, subsidized child care spaces were "at capacity", and there was a growing need to create spaces for high risk clients= children. The situation of fiscal restraint created a natural situation for this five arm randomized trial of the best mix of provider-initiated versus self-directed health promotion, employment assistance and child interventions for higher risk parents and their children.

### **Effects of Social Assistance Employment Opportunities<sup>33-37</sup>**

The effects of employment opportunities for social assistance recipients<sup>33-37</sup> were summarized by the Ontario Ministry of Community and Social Services. They reported the significant findings of 13 separate studies of Employment Opportunities Programmes (EOP) instead of studies using randomly allocated subjects<sup>33</sup>. The evidence is somewhat limited due to the use of matched comparison groups. Recipients of EOP were volunteers and matched non recipients were not. The beneficial findings in favour of EOP could well be due to either the volunteer bias or attention bias and not to the programme at all. Nevertheless, the report of 13 studies concludes that for the "Employment Support Initiatives (ESI) municipally operated employment programmes (the oldest and best known of EOP Programmes); (a) the demand for the programme exceeded enrolment by 66% and the programme enrolls 15%-20% of all eligible single parents on social assistance; (b) ESI participants were less likely to be on social assistance at follow-up (55%) than those not receiving ESI (82%); (c) participants were more likely to be in school or job training (32%) than the comparison group (22%); (d) participants were more likely to work full-time (61% of those employed) than the comparison group (33%); and (e) they had higher hourly rates of pay than those not receiving ESI<sup>33</sup>. A cost benefit analysis suggested that it pays for itself in reduced welfare costs after 1.7 years and the impact of the programme holds up over time<sup>33</sup>.

Nevertheless, the findings document that for the adult parents, there was limited availability of this programme, still room for improvement in outcomes and no information of the impact of this initiative on children. Any further evaluation of the municipality operated employment programme is needed to avoid the volunteer and attention biases in the evidence to date and document the impact of the programmes for adults on their children.

## Effects of Health Promotion

Case management as a health promotion intervention<sup>27-32,54</sup> empowers, enhances and enables families to assess the range and mix of their challenges. Unemployment and the need for child care (addressed under the ESI initiative) may be only the symptoms of an imbalance between the level of stress and the clients' problem-solving and coping capacity<sup>54-58</sup>. This problem-solving or coping capacity is reduced with mood disorder<sup>48,54,58</sup>. It was postulated that this imbalance between strain and problem-solving resources, untreated mood disorder, all in interaction with an underfunded, reactive, poorly coordinated health and social service system reinforced the imbalance, inequity of access to service resources, explained the sustained dependence on social assistance and perpetuated the absence of opportunity for parents and children.

Olds and Kitzman (1990)<sup>27</sup> summarized the randomized trials of home visit programmes for new parents with the greatest impact on parenting and child outcomes. They concluded that effective programmes depend on the synergistic effect between three programme characteristics which were used here to guide the full intervention in Group I and the public health nurse intervention in Group II.

- a) The individual visit programme was based on an ecological model which understands the interplay between systems of material, social, behavioural and biological factors rather than single influences.
- b) They were designed to address the ecology of the family during pregnancy and early childbearing years with nurse visitors who initially "connect" and establish a therapeutic alliance over health matters, visit frequently and long enough to address the system of factors that influence maternal/child outcomes (including the presence of health problems like mood disorder).
- c) The programmes were targeted to families at greater risk for maternal and child health problems by virtue of their poverty and lack of personal and social resources.

They concluded that programmes which did not include all of these synergistic features failed to produce positive findings.

We observed in the effective trials reviewed by Olds and Kitzman (1990)<sup>28</sup>, one other "structural" or systems' feature of successful programme. The deployment of a public health nurse for this role constitutes the use of a different, yet coordinated "system" of help other than the social assistance system where the helper or advocacy role is confounded by the income maintenance role. Our public health nurse case management intervention met all of these Olds et al. criteria of programmes for those in poverty which produce positive outcomes. In addition, this health promotion strategy met the expanded definition of important health promotion advocated by Fries, et al.<sup>29</sup>, one of promoting health and reducing expenditures for service. This "arms length" intervention for clients with and without treatable mood disorder health problems was provided by public health nurses alone or in combination with the full spectrum social service income maintenance,

employment programme initiatives, subsidized child care and recreation arrangements and/or medical care (pharmacotherapy) when indicated.

### **Effects of Quality and Subsidized Child Care<sup>41-44</sup> and Recreation<sup>15-18</sup>**

Doherty<sup>41</sup> (1990) has summarized the evidence on the beneficial impact of "quality" versus poor quality child care on child functioning and outcomes. This summary was based on the best research conducted in the United States<sup>42,43</sup>, Canada<sup>44</sup>, England, Western Europe, Bermuda and New Zealand.

The majority of this evidence about young children were cohort analytic investigations with small sample sizes. Only studies which controlled for parental income and education were included in the review.

It appears that early and quality child care exerts an independent effect on short and long term child outcomes such as social competence, language and play development, self-regulation, compliance and fewer school problems<sup>41-44</sup>. This effectiveness occurred irrespective of parents' socioeconomic advantage. Children at risk because of poverty and/or home environment were doubly at risk because they are more often placed in poor child care environments<sup>41-44</sup>.

The most important aspect of quality child care is the amount of caregiver involvement with the child. This was more predictive of outcome than parent education or parent socialization<sup>42</sup>. It follows that when the quality of the parents' involvement is reduced or threatened by their depression, this would have a deleterious effect on children.

Evidence supporting the benefits of recreation for youth living in circumstances of risk has been recently summarized<sup>15-18</sup>. Youth-at-risk broadly refers to youth living in any circumstance of risk such as poverty, abuse, or neglect. Recreation activities have been associated with healthy lifestyle activities, physical fitness and self-esteem, involved parents and adults, desirable peer associations and improved cognitive function. In addition, physical activity and recreation minimizes boredom in youth associated with their deviance.

A majority of this evidence about the value of recreation is before/after descriptions of the effects of recreation for volunteers of convenience samples. The validity of many of the empirical studies is weakened by methodological shortcomings including problems with sampling, representativeness and inadequate control groups and analyses which fail to adjust for the confounding effects of factors such as maternal depression known to be associated with problems in youth. More information is needed on the effects of subsidizing recreation programmes for youth at risk of various ages, genders and type and degrees of behaviour problems at the outset.

Limited capacity for subsidized child care placements in the research setting created a natural situation extending the randomized trial to include subsidized child care. The

degree to which the parents with and without mood disorder in other arms of the trial arrange for quality child care and programming<sup>59-61</sup> was monitored.

## **Summary and Conceptual Framework**

There was promising evidence on the effectiveness of employment programmes<sup>33-37</sup>, case management interventions provided by nurses<sup>27-32</sup> antidepressant therapy when indicated<sup>48-51</sup> and quality and subsidized child care<sup>41-44</sup> and recreation<sup>16,17</sup>. The cost-effectiveness and benefit of the mix of these provider-initiated interventions for certain types of parents receiving social assistance and their effect on children still awaited documentation in a randomized trial and in a national system of health insurance which avoided the methodological weaknesses of previous investigations. The proposed blend of provider-initiated versus self-directed interventions in a system of national health insurance were tested in a five arm randomized trial of the allocation of the full package of provider-initiated interventions compared with any provider-initiated service alone or self-directed care in a system of national health insurance. The main hypotheses were as follows.

## **Hypotheses**

For parents and their children living on social assistance, a comprehensive proactive provider-initiated intervention (Group I) would be more effective and less expensive than self-directed care (Group V). Combined health promotion, employment, and child interventions (Group I) would be significantly more effective than the diluted effect of either health promotion (Group II), employment retraining (Group III) or recreation (Group IV) interventions alone. Characteristics such as the presence of mood, use of beneficial coping behaviours or presence of conduct disorder in children would influence the effectiveness of the mix of interventions.

## **METHODOLOGY**

### **Research Setting**

The Hamilton-Wentworth and Halton regional social service and public health agencies are partners in the Health System-Linked Research Unit on "Health and Social Service Utilization." Funding for this study was received from NHRDP, Health Canada=s Children=s Mental Health Division and Hamilton=s Community Foundation. The 1993 Hamilton-Wentworth Regional Social Service caseload was 16,950 households and of these one third were households with children. Those households with children go on to become part of 18,715 households in the region's family benefits programme, 50% of whom are parents with children.

## **Procedure**

### **i) Feasibility Studies<sup>52,53,62</sup>**

The System-Linked Health and Social Service Utilization Research Unit had conducted a feasibility study of social assistance recipients with phones (68%) during January-April, 1992 in both the Hamilton-Wentworth and Halton Regional Department of Social Services. We quantified the volume of types of clients per month. In 1992, some 33% of GWA responding households receiving income maintenance had children #18 years of age. Within weeks a GWA family was transferred to Family Benefits and stayed 3-4 years. One hundred percent (100%) of these GWA families with children had at least one expressed need beyond money. The most frequently requested needs were job training and education, counselling, housing, transportation and child care. Few families received any helping services. The 20% of recipients of social services who received another service tended to use a family physician or physical health care for their physical needs. Family physicians miss mood disorder 76% of the time<sup>21</sup>. Our 1992 feasibility data indicated that between 76% to 80% of the surveyed households on social assistance were willing to receive one of the proposed methods for providing more or less intensive health and social services and to be measured for over five years. Some 93% of clients were able to respond in English and others had available family/friend translators.

Since the feasibility study<sup>53</sup> determined that a significant proportion of clients were receptive to the involvement of public health nurses, and that 47% of public health clients in Hamilton-Wentworth are in households which receive social assistance<sup>62</sup> and 45% of the parents suffered from depressive disorder<sup>52</sup>, we then proceeded to the main study examining the effectiveness and efficiency of a mix of service for different groups of parents and children.

### **ii) Main Study - Procedure, Eligibility and Consents**

After determining parent's eligibility to receive social assistance (income maintenance and/or subsidized child care) was established, parents were approached by the income maintenance worker for their willingness to participate in this study. Consenting parents were phoned by the project coordinator. The coordinator asked recipients for their willingness to participate in this study, about the needs of their family, their current use of services and their willingness to be interviewed again annually during the next four years. The rationing of social and public health services became agency policy. No consent for this allocation was obtained.

Subjects eligible and receiving income maintenance were randomly allocated to one of five treatment strategies using a computerized randomization schedule which blocked randomly after every 5th or 10th subject (household) to ensure equal numbers in all treatment groups (Figures 1 & 2).

## Design

This was a randomized trial of provider-initiated approaches versus a self-directed approach to providing social assistance to the single parent family: with and without a mix of public health nurse case management, employment retraining/child care, recreation/skills development and self-directed care. Intake occurred over a 12 month period, 1994-95. The final stage of the one-year intervention was completed by the end of Year II. The full period of the follow-up were measurements at one year, two years and four years after intake. Child care or income maintenance workers were not informed of the clients' participation in the health promotion part of the trial. This report documents the two and four-year effects and expense of the different approaches to the care of single parents and their children.

## Treatments

### 1. Health Promotion (Case Management/Groups I and II)

An outreach public health nurse served the allocated random sample of social assistance clients and assessed their need for opportunities. The nurse reviewed parent's needs and use of opportunities (resources). Intensive planning occurred during the initial 2-3 months and was more frequent for those low in problem-solving skill and purpose-in-life<sup>49</sup>. Much of the follow-up and assessment of compliance occurred over the phone as cases accumulated.

More specifically, the public health case manager visited the home, built a relationship with the family, and used a case management, problem-solving empowerment-enhancement approach, enabling parents to assess the 1) interplay between range and mix of their family's stressors, 2) the underlying challenges, and 3) the usefulness and choice of a range of services including a) medical care if a mood disorder was present, b) employment, education or skills training, c) child care, recreation or enriched programmes, d) health, housing, and/or other community services. Specific 6 and 12 month goals were outlined within each of the above three areas during the two-year period of intervention.

D'Zurilla (1986) Model of Problem-Solving Therapy for adults<sup>55,56</sup> has been used by others in a home visiting format<sup>30</sup>. The model was advocated by D. Meichenbaum<sup>48</sup> who has served as consultant to other problem-solving<sup>58</sup>, home visiting<sup>30,31</sup> projects and is consistent with the Olds (1990) Ecological Model<sup>27</sup>.

The problem-solving case management model was provided to single or couple parents. In case management, care was provided through the individually planned combination of different sources of support and the whole package of services used by the whole family is listed, priced and overseen by the case manager<sup>54</sup>.

During this problem-solving inquiry, the worker observed thematic areas of less effective problem-solving strategies (using D'Zurilla's model as a guide) which pervaded multiple contexts (job, family, symptoms, emotions, illness, daily living, etc.). These observations were summarized and linked in a collaborating manner with the client(s) until agreement was reached regarding the central or underlying challenge to be addressed in appraisal, coping behaviour or other steps of problem-solving.

From this agreed upon formulation mutual goals regarding appraisal, problem-solving and coping behaviour were set and prioritized in each area of a) employment/education; b) enriched child programmes; c) health/housing; d) family function and use of community services. Behavioural tasks for goal accomplishment in each area were arranged and follow-up sessions scheduled to evaluate progress using goal attainment scaling. The number and interval between meetings was tailored to meet individual needs. Generally, the initial assessment and formulation meetings were arranged early and close together with longer and longer intervals between meetings as progress in effective problem-solving was noted<sup>54,58</sup>.

This model of home-visiting, case management as one health promotion strategy met the recommended requirement of being a service separate from that provided by income maintenance workers<sup>1-4,19</sup>. Visitors were selected for and trained in 1) communication, problem-solving and counselling skills (which empowers clients to become their own advocates and self reliant), 2) the range of social service and community agency, child care, recreational services available locally.

## **2. Current Full Spectrum of Regional Employment Retraining Social Services (Groups I and III)**

The general welfare head of the household allocated to this study group received the full spectrum of current regional social service employment programmes including income maintenance. The Municipal/First Nations Employment Programme was provided by Regional Employment Counsellors with a Halton caseload of 1:50 and a Hamilton caseload of 1:100. The programme was voluntary, available to all GWA and FBA clients and consisted of 1-6 sessions during an initial six month period with six month follow-up visits up to and including 24 months. The employment programme sessions outlined in Municipal Guidelines provided a need analysis function, employment preparation function, a resource inventory brokerage function, a matching-specialized support function, and a follow-up function. Given the growing welfare caseload and social service budget cuts, clients were randomly allocated to these arms of the trial (Group I and II) to serve clients during two years at a worker to client ratio of 1:50 for any given time of the year. This allocation would ensure that the ESI Programme was being implemented as it was envisioned, comparable in intensity for those receiving versus not receiving the health promotion or child care interventions. The rate at which clients in these groups sought other employment/retraining, health promotion and child services/programmes for themselves or family was monitored.

### **3. Proactive Recreation/Skills Development Programme (Groups I & IV)**

This subsidized, age-appropriate, after-school recreation opportunity was provided to all children in a household in Groups I, and IV by a collaborative effort between the YMCA and 21 other youth-serving organizations. Options were negotiated with the parent by the recreation project coordinator located within the YMCA's of the region. The child on social assistance joined existing weekly Y-based programmes for children aged 0-2, 3-5, 6-8, 7-10, 11-13 years. School-based programmes for 13-18 years old were offered by the Y's for the high-school student as part of the Y's existing community outreach initiatives.

The Recreation/Skills Development Programme operated under the guiding principles of the Ottawa PALS Programme (Participate and Learn Skills) and the Hamilton STAR Programme (Social Skills Training Activities and Recreation) designed by Offord and Jones (1990)<sup>16,17</sup>. The basic principles included the development of skills, integrating children into mainstream recreation programmes, active recruitment of children, free of charge to the families and include parental involvement. This intervention was different from the PALS and STAR Programmes in that the parents in this programme did not collectively identify groups needs as they do not live in one single housing complex but live throughout the core city. Parents were involved in making decisions about the most appropriate activities for their children based on the individual needs of their child.

A menu of subsidized enriched, age and gender appropriate child programming opportunities were available through the joint efforts of the YMCA and collaborating youth-serving agencies. Options were negotiated with the parent by the recreation/skills development project coordinator located within the YMCA of the region. This coordinator actively recruited children allocated to the study Groups I and IV into the programme.

Two encounters per week per annum were selected in light of parent-child age, gender, culture and specific preferences. Programme attendance was counted and priced for this component of the intervention.

Enriched child programming/recreation opportunities must meet the adequate to superior criteria on the Early Childhood Environment Rating Scale (ECERS) Harms and Clifford, 1980, a reliable, validated and extensively used measure of quality programming which rates child-caregiver interactions, supervision discipline health, and safety practices. This scale is amenable for use in rating "centre" versus "in-home" approaches to child care which have been determined to be equivalent in quality if other factors are equal (training of the carer, space, adult-to-child ratio and interaction<sup>59-61</sup>).

### **4. Social Assistance or Self-Directed Care (Group V)**

General welfare recipients allocated to this arm of the trial received no further provider initiated or prescribed social service other than the income maintenance regional social service. However, participants had self-directed use of health and social service in

this system of national health insurance. This represented much of the current practice for all clients designated as "unemployable" such as single parents. The social assistance function, received by everyone in all arms of the trial, consisted of a client-initiated intake, eligibility assessment in person, regular ongoing eligibility assessment. Because of the growing caseloads, in 1992, there was minimal case planning available to this group and less frequent social service follow-ups. Clients in this group created their own opportunities. At the commencement of the study, the Hamilton-Wentworth caseload was 1:220 workers to clients. Some 30-40% of the GWA caseloads are sole-support parents who proceed on to Ministry of Community and Social Service Family Benefits (FBA) programme.

Historically, the average length of receiving income assistance in this group was four years. In this study, the rate at which clients in this group engaged in "self-directed" employment/retraining, health promotion and child services/programmes for themselves or family were measured.

## **Ethics and Consent**

Subjects were asked for their consent to respond to questionnaires at baseline and at follow-up over four years. They were informed of their right to refuse participation. Since economic restraint requires reductions in both public health and social services, this randomized trial of the rationing of services was the most fair from a deontological perspective and represented practice policy. No consent for this allocation to service was obtained. The effort to detect and refer the vulnerable group with mood disorder represented an added service not currently offered by public health or social services. This kind of information on the beneficial mix of services, for whom, could guide the future allocation of service based on evidence about effectiveness and efficiency.

## **Justification of Sample Size**

Sample size was estimated a number of ways: The largest sample required to detect a reduction in adult welfare recidivism<sup>63,64</sup> and child psychiatric disorder (the primary outcomes) from 30 to 15%<sup>65,66</sup> at the one-tailed alpha .05 and beta of .20 would require 108 adults and children for each of the five main arms of the study or 532 households<sup>67</sup> with children completing the trial.

In order to have a sample sufficient to detect these differences 763 households with children were allocated in order to retain approximately 532 households during the four-year follow-up period. Some 78.5% (599/763) were retained in the four-year follow-up.

## **Calendar of Events**

Consenting families were assessed prior to the period of intervention and annually for four years, 1995 to 1999, to determine the long term, enduring effects of the combined interventions. A four-year follow-up was conducted in order to follow the usual single

parent families' three-four year length of stay on social assistance<sup>64</sup> as in the following calendar of events, Figure 3.

## INSTRUMENTATION

Figure 4 outlines the proposed causal, mediating and outcome variables and their measures.

### i) Client Characteristics

Recipients of social assistance were described in terms of the usual information gathered on the income maintenance application form: gender, race, family constellation and size, first language, education, work history, prior welfare applications, employability status and mood. The characteristics of those deemed ineligible and who decline participation at any decision point of the study were compared, in aggregate form, to those who completed the study. The female was designated family respondent regarding measures of all members of the household, except in 25 cases where the single parent family was led by the father. The mother responded regarding the identified parents productivity, all children's and her own adjustment and the family's function. All children in families who entered the study were followed into adulthood and administered adult scales of adjustment and productivity using methods previously developed in our longitudinal studies<sup>81,82</sup>.

### ii) Costs of Health Promotion and Social Interventions

- # Costs of treatment social worker, recreation, nurse time, physician time, medication x number of visits
  
- # Compliance, attendance, and costs of parent and child programmes

The data gathered on parents' (1) health promotion and social service visits, visits to family physician, outside counselling sessions, employment and job training sessions and (2) children's attendance at quality<sup>59-61</sup> extra curriculum enriched programming beyond school or child care services are, at once, a measure of the compliance with and dose of the type of health, social and child\_care interventions which occurred, and a measure of additional resources\_consumed by participants in the trial. The annual frequency of using resources is multiplied by the dollar value of the resource<sup>79</sup>. The dollar total of annual resources consumed per family was compared between the arms of the trial and was embedded in the measure of health and social service utilization described on page 17.

### iii) Effects: Primary Effects

#### A) Change in Parent Mood

Questions about a person's emotional well-being were asked using the University of Michigan, Composite International Diagnostic Interview (UM-CIDI short form, Kessler and Mroczek, 1994). This screening device, derived from the WHO CIDI (Composite International Diagnostic Interview) reflected the diagnostic and Statistical Manual of Mental Disorder, 3rd, Revised Edition (DSM-III-R). It was believed to be the best instrument to identify major depressive episodes, dysthymia, generalized anxiety disorders, phobias, panic attacks and alcohol and substance abuse and dependence.

The UM-CIDI (long form) was developed as a screening instrument for a community sample and was used in the U.S. National Co-morbidity Survey (Kessler, et al., 1994). The instrument used a stem and branch structure which allowed those with no disorders to proceed through the interview very quickly. A diagnosis of mood disorder was confirmed using the Structured Clinical Interview<sup>70,71</sup> (SCID-P) now available for DSM IV.

#### B) Adjustment

##### # Parent Adjustment and Quality of Life<sup>72,83,84</sup>

While there are a number of measures of adult adjustment and quality of life<sup>72</sup> the Social Adjustment Scale (Weissman et al., 1978)<sup>83,84</sup> measure was chosen, because of its applicability to the population, prior use in studies of adults with mood disorder, high degree of reliability, validity, and test use across all samples with varying levels of mental, social, vocational competence<sup>83,84</sup>. The lower the score the better the adjustment where well adjusted were scores # 1.97 and poor adjusted were scores \$ 1.98. In support of its validity, the SAS distinguishes among depressed versus non depressed subjects<sup>49-51</sup>. The SAS-SR is a self rated measure of social functioning over the past two weeks on 5-point scales for items measuring three broad areas of work, family and leisure functioning. It has eight areas of social and vocation function: work for pay, housework, school work, social and leisure time, marital, family and extended family performance.

##### # Childhood Adjustment (Behaviour Disorder) - information on all children in the family was gathered and reported.

The Survey Diagnostic Instrument (SDI) of the Ontario Child Health Study<sup>65,66</sup>, was developed from the Achenbach and Edelbrock, 1983 Child Behaviour Checklist<sup>74</sup> which provided a basic pool of items to assess

childhood psychiatric disorders: conduct disorder, hyperactivity and emotional disorder (neuroses) - in children 4-16, and somatization in adolescents 12-16 years of age. DSM-III (APA, 1980) criteria guided the selection of items for each scale. The item content for the emotional disorder scale was chosen to reflect elements of the DSM-III categories of over anxious disorder, affective disorder and obsessive compulsive disorder. When items from the Achenbach Child Behaviour Checklist were judged inadequate in measuring a particular criterion, the Ontario Child Health Survey Instrument added items. The checklist is used by parents, teachers and adolescents aged 12-16. While the Achenbach provides scores on the child's "Social Competence" versus "Behaviour Problems", the Ontario Child Health Study SDI can pinpoint the type of behaviour problems.

Checklist items applicable to a particular disorder or competence are grouped to form a scale. Each item is scored 0, 1, 2 indicating the behaviour is "never", "sometimes", or "often" true of the child.

Checklist scale scores were converted to binary ratings of disorder based on their ability to discriminate the presence or absence of a diagnosis made by a child psychiatrist. Separate thresholds are established for each data course for the two age groups. A 4-11 year old could have a disorder on the basis of one source (parent or teacher) or both sources (parent and teacher). Similarly, a 12-16 year old could have a disorder on the basis of one source (parent or adolescent) or both sources (parent and adolescent).

Children in each group must have a score below the threshold to qualify as not having a disorder<sup>65</sup>. As children in this study became 4 years old, they were measured using the 1983 Instrument. As 12-16 year old children became 17-21 or greater, they were followed using 1987 OCHS instruments (for 17-21 year olds) and/or followed using adult measures of adjustment and productivity. For children <4 years, the two scales from the Minnesota Child Development Inventory (MCDI) were used: Minnesota Infant Development Inventory (MIDI) for 0-15 months and the Early Child Development Inventory (ECDI) for children 15 months to three years were used (Appendix I). The validity of the MCDI has been established<sup>76,77,85,86</sup> and the median reliability of each scale for the useable age range is .68 to .90<sup>86</sup>.

The Minnesota Infant Development Inventory (MIDI) measures development in five areas: gross motor, fine motor, language, comprehension, and personal-social. The inventory also allows the mother to describe her child and report any problems or concerns about the child. If the infant's development in an area falls below the behaviour of infants 30% younger, the infant's development in that area is considered to be below age expectations or delayed.

The Early Child Development Inventory (ECDI), is a parent report for use with children ages 15 months to three years. The ECDI includes six sections: general development, possible problems, child description, special problems or disabilities, questions or concerns and parent's functioning. The first two sections provide objective, standardized measures of developmental and other problems while the last four sections provide open-ended information which is rated for presence and severity of problem. The general development scale covers seven developmental areas (language comprehension, expressive language, gross motor, fine motor, self-help, situation comprehension, and personal-social). A child is considered to be possibly developing below-age expectations if he or she obtains a score that is lower than the average score for children who are 20% younger.

C) Productivity of Identified Parent

(Recipient of social assistance if more than one parent)

# Parent Employment Activities and Exit Behaviours<sup>63,64,78</sup> - were measured in terms of months of job training, and months to financial independence (partial or full independence). A parent may engage in part-time or full-time work and still receive supplementary assistance if wages are below the poverty line for the size of the family.

# Child Productivity or Competence<sup>75</sup> (if school age) was measured in terms of the Achenbach Measure of Competence. The total competence score comprises the sum of three scale scores: **activities** (sports, hobbies, organizations, groups, friends, contact with friends) and **academic** (for ages six and older, performance in reading, English; history or social studies, arithmetic or math, science and other classes). The competence scales of four and five year olds is not measured because these children are not in academic settings. Thus, the number of competence scores is usually lower than the total number of child behaviour checklists. The competence scales distinguish referred and non-referred child populations in expected directions<sup>75</sup>. Childhood competence was thought to be a more discriminating measure of a population who was 75% to 80% non-disordered at baseline and at one-year follow-up. It was introduced as a measure at the two-year follow-up.

iv) Savings - are defined as expenditures averted due to a reduced need for social or therapeutic services.

A) Months to Financial Independence - where the reductions in the length of time on assistance and family benefits<sup>79</sup> between groups is multiplied times

the dollar value of the benefit (which depends on the family constellation and size) equals the dollars saved due to the intervention.

- B) Use of Health and Social Services - the 1990 Browne, et al. Health and Social Service Utilization Inventory<sup>79</sup> is used to tally the frequency of using all types of health and social services by all members of the family. The 6 month frequency is annualized and multiplied times the dollar value of the service and summed as a per family dollar measure of utilization compared between the groups.

## RESULTS

This two and four-year follow-up proceeded as follows. Participant families were compared to those who dropped out on their general characteristics at baseline. Statements about the representativeness of study families were made from Figures 1 and 5.

The comparability of participant families in each of the study groups were assessed on their baseline characteristics. Even though randomization was used as a means of ensuring comparable groups at the onset of the trial, dropout events after randomization may have rendered study groups non equivalent on characteristics known to affect outcome. The direction and impact of any differences or biases on results are highlighted.

The dose and type(s) of interventions in each group were described and later quantified as a dollar value. The hypotheses of effectiveness and efficiency were tested in a five-group comparison on all families allocated to groups (intention to treat analysis) and retained in the four-year follow-up. Analysis of variance was done to see if there were any important effects due to the type of treatment. The utilization data summarized as dollar values were skewed, and thus, comparisons were also done using the nonparametric Kruskal-Wallis analysis of variance<sup>79</sup>. The hypotheses of effectiveness and efficiency were also tested between the groups receiving or not receiving recreation as an intervention.

### 1. TWO-YEAR FOLLOW-UP

#### 1) Retention:

Over a two-year period of follow-up, 49% of the sample of 765 parents and 43% of the sample of 775 children ( $\geq$  four years of age) were retained in the analysis (Figure 5).

#### 2) Engagement Rates:

As in Figure 6, the percents of parents engaged in services offered were 35% and 38% for employment retraining, 66% and 80% for public health to 74% and 79% for children-s services. The intensity of visits also varied (Figure 7). Employment retraining and public health visits were offered for one year. Age-appropriate children-s services continued for four years.

#### iii) Representativeness:

We retained a more socioeconomically disadvantaged group of parents and children who used more expensive health services at the outset (baseline scores).

**iv) Comparison of Groups at Baseline:**

Groups were comparable at baseline on important variables such as parents' mood (Figure 8) and social adjustment (Figure 9).

**v) Tests of Hypotheses:**

With a five-group comparison, parents' mood (Figure 8) and social adjustment (Figure 9) and their children's behaviour improved a great deal and equally after two years whether offered provider-initiated (Groups I to IV) or self-directed (Group V) health, social or recreation services.

There was a significant difference in exit from social assistance across five groups associated with proactive service strategies (Figure 10) yet no difference in expense with the exception of parents offered employment retraining alone (Group III) who used 2.2 times more service than those in the other group two years later (Figure 11). In other words, the cost of the extra proactive services in Groups I to IV paid for themselves immediately in the reduced use of professional services when compared to the utilization of services in Group V (Figure 11).

If any difference between groups existed, it should have occurred between Group I (N=88) (the comprehensive mix of proactive provider-initiated services plus self-directed service use) versus Group V (N=60) (self-directed services use). Two years later, a greater proportion of parents (25%) who received comprehensive care said they had not used any form of social assistance compared to (10%) non-users in self-directed care ( $\chi^2=5.23$ ,  $p=.02$ ).

The total per parent annual direct use of services between the groups were similar at the two-year follow-up. Even when the cost of the full intervention was added to the total, it was no more expensive to provide parents with comprehensive care, yet saved money in the parents' non use of social assistance within one year.

The recreation/child care services either within comprehensive care or provided alone indicated that parents had less nervous system problems, less medication for sleep, less phobia disorders and better economic adjustment (Figure 12). These recreation services also had the effect of reducing parental mental health problems (Figure 12) and maintaining the social, academic competence of children with behaviour disorder at baseline who were six years and older (Figure 13). Even when the cost of recreation was added to the child's expenditures for use of services, comprehensive care was no more expensive than that expended by children in self-directed care. (A fuller discussion of the impact of subsidized recreation services is available in a companion report, *All Benefitting All the Beneficiaries of Social Assistance is Within Our Reach*).

## **Subgroups:**

We examined the characteristics of the parents (age; mood disorder, yes/no; number of children;) which may have interacted with the approach to treatment to explain the improvement in the parents social adjustment score. No interactions were significant, thus there were no particular types of single parents who benefited more from comprehensive care versus self-directed care within the two or four-year follow-up. Single parents of all types receiving comprehensive care benefited (increased adjustment) (Figure 9).

## **B. FOUR-YEAR FOLLOW-UP**

### 2) Retention and Representativeness: Parents

#### **Retention of Parents:**

In the four-year follow-up, 78.5% of the 763 single parent families originally allocated were located (N=599) with the help of the credit bureau and an intense relocation effort (Figure 1).

#### **Representativeness of Parents:**

One hundred and sixty baseline socioeconomic, psychosocial and health variables were compared between participants and those who were lost to follow-up four years later. Although one would expect eight differences by chance alone, six differences were noted (Tables 1, 2, 3, 4a, 4b and 5).

A greater proportion of participant parents were skilled (17.2%) or semi-skilled (26.2%) compared to those lost to follow-up (11% and 18.9%, respectively). A greater proportion of those parents lost to follow-up were high school dropouts and classed as unskilled (46.7% versus 36.4% of participants,  $p=.01$ ). Some 69.1% of participants versus 57.3% of parents lost to follow-up had Grade 12 or more education,  $p<.001$  (Table 4a). More of those lost to follow-up took high school courses at baseline (15.9% versus 9.0%,  $p<.01$ ) whereas a greater proportion of participant parents took college courses at baseline (9.3% versus 4.3%,  $p=.04$ ) (Table 4a). As in Table 4a, parents lost to follow-up were longer on social assistance at baseline (21.4 months versus 12.4 months for participants,  $p=.01$ ).

We retained a more advantaged parent population and our findings are an underestimate of the prevalence of problems. In addition, it will be more difficult to show an effect of treatment.

As in Table 1, participant parents were equivalent to those parents lost to follow-up in baseline:

- gender (97.2% female);
- with two or more children (55%);
- marital status: 44% separated, 23.5% divorced, and 29.9% never married;
- Canadian born (80%);
- Canada  $\geq$  10 years (78%);
- English or French speaking (95.3%);
- in having some religious affiliation (57.8%);
- proportion (14.3%) who were visible minorities;
- who planned enrollment in a course or job (36% to 55%);
- who were prior users of social assistance in the previous 12 months (98%);

In Table 2, participant parents were equivalent to those lost to follow-up in the proportion at baseline:

- who perceived their health as good to excellent (77%);
- yet worried about their health (41%);
- complained of pain (45%);
- with one or more health conditions (65%);
- suffered major depression (44%);

From Table 3, participants in the four-year follow-up were similar to those lost to follow-up in the proportion at baseline wanting:

- recreation for their children (78.8%)
- job training (63.6%)
- child care (61.3%)
- housing (50.3%)
- counselling for self or family (48.1%)
- education (47.4%)
- health services (43.2%)
- transportation (40.4%)
- social support (38.6%)
- foodbank assistance (29.4%)

Tables 4a, 4b and 5 illustrate participant parents were similar to parents who were lost to follow-up:

- in proportion previously on social assistance (66.9%) as indicated at baseline:
- age (32.1 years)
- age of first child (8.3 years)

- number of children (1.9)
- years since first on social assistance (6.62 years)
- eight types of coping behaviour
- nine types of social adjustment (Table 4b), and
- expenditures for the use of health and social services (Table 5)

## ii) Retention and Representativeness: Children (Four-Year Follow-up)

### Retention of Children

The trial flow diagram in Figure 2 shows all children in the analysis and all children excluded from analysis at baseline (1994) and the four-year follow-up (1999). There were 1437 children allocated at baseline. Of these, 282 were not included in analysis for the reasons noted on the flow diagram, leaving 1155 for analysis. Of the 1437, 312 children were lost to follow-up (refused or not located), leaving 1125 at four-year follow-up; however, 103 children were born after the baseline interview:  $1125+103=1228$  children reported at four-year follow-up.

Of the 1155 with completed, age-appropriate questionnaires at baseline, 244 were lost to follow-up, leaving 911 available for four-year follow-up questionnaires. At four-year follow-up, 17 had missing or age-inappropriate questionnaires, 21 were not living with the parent and 120 now age 17 or over (total 158 excluded:  $911-158=753$ ).

The 244 children/youth lost to follow-up were distributed as follows: 1) Minn 1 - 38 lost, 0 to 15 months; 2) Minn 2 - 35 lost, 16 to 36 months; 3) Minn 3 - 19 lost, 37 to 47 months; and 4) CBC - 152 lost, 4 to 16 years.

Table 6 displays the number of children/youth not included in the baseline analysis, by group, in the following order: 1) Any reason why not included in Time 1 analysis; 2) Missing or wrong questionnaire is the reason for not appearing in Time 1 analysis; 3) Child not living with parent; 4) Child age 17+.

The five study groups differed statistically but not clinically in the four reasons for not being included in the baseline analysis of representativeness. Some 10.7% of welfare youth living with parents are  $\geq 17$  years.

There were 456 children/youth 4 to 16 years with a child behaviour checklist at baseline and an Achenbach competence score four years later.

### Representativeness of Children

Representativeness analyses were run with the 1155 participant and lost children and youth at baseline. As in Table 7, participant children and youth in the four-year follow-up (N=908) were at baseline higher users of all total direct health services compared to

eligible children and youth lost to follow-up (N=242). Not only were participant children and youth higher users of total direct health services at baseline, they were in particular higher users of family physicians (p=.05), specialists (p,.00001), physiotherapists (p=.01), other health practitioners (p=.0006), medications (p=.01), supplies and devices (p=.001), out of pocket expenditures (p=.002) and total direct costs with hospitalizations included (p=.004). Participant children expended, on average, \$2,435 (" 6882) per child/per annum compared to the cost of those lost to follow-up \$1754 (" 3347) (Table 7). This observation was not sensitive to the type of statistical analyses performed.

Table 8 displays the representativeness of participant children at baseline, 0 to 15 months (N=140) in developmental delay compared to those lost to follow-up (N=38). Participant children were similar (14.3%) to those lost to follow-up (10.5%) in the proportion of children with any type of motor, language, comprehension, social/personal type of delay ( $\chi^2(1)=0.36$ , p=.55).

Similarly, as in Table 9, participant children 16 to 35 months (N=107) were similar to those lost to follow-up (N=35) in:

- a) the proportion (6.5% vs. 2.9%) with developmental delay (2-tailed Fisher=Exact=.68);
- b) the proportion with possible major problems [(31.8% vs 22.9%)  $\chi^2(1)=1.01$ , p=.32].

The proportion of participant children 36 to 47 months in Table 10 (N=58) were similar at baseline to the proportion of children lost to follow-up with 3 or more or uncommon problems [(43.1% vs. 63.2%) where  $\chi^2(1)=2.30$ , p=.13].

Tables 11a, 11b, & 11c display the proportion of 606 participant children and youth between the ages of 4 to 16 years compared to 152 children 4 to 16 years lost to follow-up, with conduct (7.8% vs 7.2%), hyperactivity (11.2% vs. 9.2%), emotional (14.2% vs. 8.6%, p=.07), or any behaviour disorder (21.6% vs. 15.8%).

Participant children of all ages appear to represent those children lost to follow-up. If anything, we were able to retain a greater proportion of more delayed or disordered children in the four-year follow-up.

### iii) Comparison of Groups at Baseline: Parents (Four-Year Follow-up)

The study groups of parents were equivalent (Figure 1) in the 78% to 80% participation rate, four years after intake into the trial. At baseline, groups were similar in 151 of 160 other sociodemographic, coping, health and adjustment variables (Tables 12-17b). Of 160 baseline socioeconomic, psychosocial and health variables compared between participants in each of five groups, one would expect eight differences between groups by chance. Nine differences were found. At baseline, a smaller proportion of parents allocated to receive employment retraining (Group III):

- drug dependence (0% versus 1% to 5%,  $\chi^2(4)=9.42$ ,  $p=.05$ ) (Table 14);
- had need for counselling (37.2% versus 44% to 53.8%,  $\chi^2(4)=10.18$ ,  $p=.04$ ); parenting skills development (24.8% versus 26.7% to 40.2%,  $\chi^2(4)=10.80$ ,  $p=.03$ ); translation services (0% versus 1% to 3.4%,  $\chi^2(4)=9.48$ ,  $p=.05$ ); support groups (28.9% versus 30% to 52%,  $\chi^2(4)=17.8$ ,  $p=.001$ ) (Table 15).
- had mental health issues (5% versus 10.3% to 14.5%,  $\chi^2(4)=7.57$ ,  $p=.11$ ) (Table 16); or
- had two or more children (47.1% versus 50% to 58.7%,  $\chi^2(8)=20.4$ ,  $p=.009$ ) (Table 17a);

A greater proportion of parents receiving PHN visits (Group II) had taken a college course (16.2% versus 5.6% to 9.9%) where  $\chi^2(4)=9.48$ ,  $p=.05$  (Table 17a); and, as in Table 17b, in both Groups I and II parents had older children (9.5 years versus 7.2 years to 7.8 years,  $F=3.13_{(4,594)}$ ,  $p=.01$ ).

Even though only 35% of parents allocated to employment retraining used it (Figure 6) \$10 minutes, given the advantages and biases at baseline favouring those remaining in employment retraining and the higher proportion married or with a partner at follow-up (34.7% versus 18.8% to 29.0%,  $\chi^2(4)=10.05$ ,  $p=.04$ ) (Table 17a), one would expect this employment group to demonstrate a higher exit from social assistance four years later either due to employment or assistance from partners.

#### **iv) Comparison of Five Groups at Baseline: Children (Four-Year Follow-up)**

Comparability between groups was assessed on the 753 participating at four-year follow-up. The degree of children and youths (aged 4-16 years) conduct, hyperactive, emotional, and any disorder scores are equivalent at baseline in all five study groups, except that those in the self-directed Group V had a lower mean score in conduct disorder (Table 18).

#### **v) Comparison of Recreation and Non Recreation Groups at Baseline: Children**

##### **4) Behaviour:**

The mean child behaviour disorder scores for children/youth 4 to 16 years offered subsidized recreation (Groups I and IV) or not (Groups II, III, V) were comparable in the degree of conduct (6%), hyperactive (13%), emotional (20%), or any number of disorders at baseline (Tables 19a and 19b).

##### **5) Expenditures for Children=s Use of Health and Social Services:**

Table 20 displays the baseline annual per child expenditures for the use of health and social services by children offered the proactive subsidized recreation services vs expenditures for children/youth who created their own opportunities. At the outset children/youth allocated to the proactive subsidized recreation services were less expensive (\$1771 ± \$3308 vs. \$2662 ± \$7750, p=.05).

#### **vi) Tests of Hypotheses: Four-year Follow-up**

##### **a) Parents (Five Group Differences)**

By four years and after the enforcement of “Spouse in the House” policies disqualify a parent=s eligibility for social assistance, all study groups were equivalent in the:

- \$ 57% to 66.9% of parents who reported non use of any social assistance in the previous 12 months ( $\chi^2(4)=3.32$ , p=.51) (Tables 21 and 22);
- \$ degree of substantial improvement in parental social adjustment ( $F_{4,593}=.55$ , p=.70) (Table 23) (Figure 14);
- \$ corresponding reduction in per parent annual expenditures for use of all other health and social services (kw=7.53, p=.11) (Table 24).

As predicted, (Figure 15) while not statistically significant, an 8% to 10% greater proportion of parents in the employment retraining group were not on social assistance four years after intake, 66.9%, versus 57.0% to 59.5% in the other four groups,  $X^2(4)=3.32$ , p=0.51. They differed from other groups in their source of income at Year 4 coming from wages and “other” (presumably partner support since they were less fully employed and

alimony was the same) yet were among the highest per parent annual expenditure for the use of all other health and social services four years later (\$3434 "12,209) (Table 24).

While parents whose children were exposed to age-appropriate quality child care had a 10% earlier exit from social assistance within one year, 20% vs 10%, four years later exit from social assistance was equivalent across groups, 57% to 66.9%. Parents of children allocated to child care/recreation had fewer per parent annual expenditures for the use of community health and other social services (without hospital), \$864 ("1524) versus \$1001 to \$1600 ("2197 to \$3141), where  $\chi^2=12.90$ ,  $p=.01$ . The same pattern of lower expenditures for parents whose children continued to receive subsidized recreation/child care was evident with hospital costs added (Figure 16).

### **Predictors of Exit From Social Assistance After Four Years**

Since groups were equivalent in the 57.0% to 66.9% exit from social assistance, variables other than treatment group could explain this. Exit from social assistance was defined as reporting no income support from Family Benefits or General Welfare Assistance (now Ontario Works) in the last 12 months. Bivariate analyses were conducted to determine those variables which were significantly associated with exit. Significant explanatory variables were analysed for collinearity using correlations, t-tests and chi-square tests. Logistic regression was used to determine which combination of factors predicted exit from social assistance. Explanatory variables which were highly associated with other explanatory variables were excluded from the regression. Non-modifiable variables were entered first in the regression; the second step entered all other explanatory variables except group. Those who were married between baseline and the four-year follow-up were almost 15 times as likely to exit social assistance. Additionally, those who took a college course in the last 12 months, those who had any work for pay in the last 12 months and those who reported Canadian ethnicity were about twice as likely to exit social assistance by the four-year follow-up. Perceived health, the social scale score of the Social Adjustment Scale, and treatment group had no significant effect on exit. Table 25 shows the results of the logistic regression.

During the course of this trial the following policy changes occurred. In 1994, Ontario introduced a policy of "Spouse in the House" (the equivalence of married) as a reason for disqualifying sole-support parents from social assistance. Figure 17 shows the percent who got married by four-year follow-up. In April of 1996, "Workfare" was introduced requiring parents of school-aged children to work. This policy did not apply to sole-support parents then on "Provincial Family Benefits" until they were transferred back to municipal social assistance. In April 1999, some 4,000 sole-support parents in just one of our sites were transferred and intensely reviewed for "spouse in the house" and "age of children". This was precisely the time we were completing our four-year follow-up. Accordingly, "married" is weighted most heavily in the logistic regression to explain exit from social assistance. Consequently, the free-entry logistic regression analysis was rerun

with the variable “marital status” left out and the “general welfare” and “work for pay” variables in the equation.

Parents who took a college course in the last 12 months were about 2.7 times as likely to exit social assistance by the four-year follow-up and those who reported Canadian ethnicity were about twice as likely to exit social assistance. Persons entering the study from General Welfare Assistance (recent recipient) were 1.9 times as likely to exit than those who entered from the Family Benefits program (on social assistance longer at intake into the trial). Those who reported any work for pay in the 12 months preceding the study were 2.4 times as likely to exit social assistance (Table 26).

## **b) Children: (Five Group Differences)**

### **Child Behaviour**

Small sample sizes precluded in-depth analyses of the 3 age groups of children 0 to 15 months (N=140), 16 to 35 months (N=107), and 36 to 47 months (N=58), when further divided into each of the 5 study groups. Consequently detailed analyses are provided only for children 4 to 16 years (N=456).

As in Table 18, ordinal measures of child behaviour are used rather than binary measures in order to calculate more precisely the degree of improvement four years later in children’s behaviour score in the five groups. As in Figure 18, children and youth evidence statistically significant and clinically important reductions in mean conduct, hyperactive, emotional, and number of behaviour disorders scores ( $p=.0001$ ) four years later (Table 27) however, the degree of this improvement is equivalent in all 5 study groups (Table 18). Table 28 provides a McNemar’s chi square for paired categorical data for the whole sample of children to illustrate that a significant proportion of those with conduct, hyperactive, emotional or any disorder at baseline improve four years later ( $\chi^2(1) 16.16, p=.0001$ ).

There was no difference between groups in number of children with any behaviour disorder after four years (Tables 29-32). One way ANOVA of change in ordinal scores showed no significant difference by randomized group for any behaviour disorder; and logistic regression, entering group and disorder at baseline showed group was not a predictor of having a disorder or not.

### **Expenditures for Health Service Utilization (Five Group Differences)**

Table 33 displays the per child or youth expenditures for health and social service utilization by five study groups four years after entering the study. By four years, all study groups showed a reduction in child/youth behaviour disorder scores. However, the child care/recreation alone group (IV) was associated with the lowest per child annual expenditures for use of health and social services (\$908 per person/annum " \$2,041) even

after including the cost of on-going recreation for four years (Figure 19). In comparison, the per child annual expenditures for use of services of children of parents allocated to receive employment retraining were the highest of the five groups four years after intake into the trial (\$2,715 per child per annum " \$8,820), a three-fold difference, where  $\chi^2(4)=21.91$ ,  $p=.002$  (Table 33).

### **c) Children (Recreation and Non Recreation Differences)**

#### **Child Behaviour**

Children and youth in recreation and non recreation groups show a clinically and statistically significant reduction in all types of behaviour problems four years later with the greatest reductions in conduct, hyperactive, or emotional disorders favouring the subsidized quality age-appropriate child care/recreation group ( $p=.08$  to  $.09$ ) (Table 19b).

There was no significant reduction in conduct or emotional behaviour problems four years later associated with either recreation group or presence of conduct (Table 34a) or emotional disorder (Table 34b) at baseline. The reduction in hyperactive disorder four years later in children/youth is, of course, significantly associated with presence of hyperactivity at baseline (Tables 34c and 34d), and not associated with use of subsidized recreation services.

#### **Child Competence**

When examining child competence in children in recreation or non recreation groups, 456 children had behaviour checklist scores and competence scores (Table 35). Of these 456, 8 children were not in school for a final sample of 448 children (207 in subsidized recreation and 241 not).

Table 36 illustrates that childhood school competence is higher in children without conduct disorder at baseline ( $t_{446}=2.62$ ,  $p=.009$ ). Table 37 illustrates that children without hyperactive disorder at baseline show statistically significantly higher social competence ( $t_{454}=3.26$ ,  $p=.001$ ), school competence ( $t_{446}=6.39$ ,  $p<.0001$ ) and overall standardized competence t-score ( $t_{446}=3.82$ ,  $p<.0001$ ). The competence scores for children without emotional disorder (Table 38), go in the expected direction of higher scores without disorders as do the competence scores of children without any disorder ( $p<.005$  to  $<.0001$ ) (Table 39).

Table 35 illustrates that children and youth in the subsidized recreation group had a statistically significant higher school competence score ( $t_{446}=1.96$ ,  $p=.05$ ).

Tables 40 to 43 (Figure 20) illustrate the continuing protective effect of recreation on the social, academic and overall competence of children with any disorder at baseline ( $F=7.79$ ,  $p=.005$ ). All of this competence four years later is achieved at a \$700 per year

lower per child expenditure for health and social services, enough to pay for a family membership to the YMCA.

There were lower costs for total use of services four years later (\$1355 " \$2459 vs. \$2062 " \$6755,  $p=.07$ ), despite higher per person expenditures on recreation services (\$86 pp " 124 vs. \$51 pp " 104,  $p=.0001$ ), for the recreation group (Figure 21 and Table 20).

### **Summary: Children in Recreation**

Age-appropriate quality child care and recreation for children on social assistance:

- \$ results in a 10% greater exit of parents from social assistance within one year
- \$ maintains the academic, social and physical competence of children with baseline behaviour disorder at two and four years
- \$ pays for itself within one year because of reduced use of professional and probationary services, and
- \$ after four years, not only continues to pay for itself but results in one-third the annual per child expenditures when compared to expenditures for use of services by children of parents allocated to receive employment retraining alone.

## CONCLUSION AND DISCUSSION

At the two-year follow-up, there was a higher retention of sole-support parents (58%) allocated to receive comprehensive care (Group I) compared to those allocated (39%) to receive self-directed care (Group V). In spite of this differential drop out rate, parents and children were equivalent in mood, social adjustment and behaviour at baseline with two exceptions. A greater proportion of mothers retained in the two-year follow-up in Group I had three or more children (33%) compared to the proportion of families with three or more children allocated to receive self-directed care (15%). In spite of this, Group I mothers reported a better economic adjustment at the two-year follow-up and a greater proportion had not used any social assistance in the previous 12 months.

More effective, comprehensive care was no more expensive in the use of all other health services and was associated with greater benefit (cost averted) measured in terms of a higher proportion of mothers not using any type of social assistance during Year 2. Some 25% of mothers receiving comprehensive care did not use social assistance in the previous year compared with the proportion of non use of social assistance (10%) observed during Year 2 in mothers directing their own care. Comprehensive care is both more effective and less expensive to society as a whole. These immediate returns on the investment in comprehensive care were not seen in the other diluted, single approaches to care.

A number of other policy lessons have been learned through this study of comparable groups of disadvantaged parents on social assistance treated with proactive comprehensive services as compared to them directing their own service use. At least one-third of mothers who had, up to the time of the study, not been offered employment retraining elected to attend at least one session. This information is similar to the rate of engagement observed in the self-sufficiency project<sup>87</sup> of New Brunswick and British Columbia and supports the social policy of extending this service to sole-support parents previously designated as unemployable. The finding that the full mix of services is more effective in promoting economic adjustment and less expensive in promoting less use, as indicated by the parent, of social assistance illustrates the importance of having some other service proactively available even when employment retraining does not engage the parents at a point in time. This front-end investment in a menu of services to treat the sole-support parents= multiple needs and whole circumstance results in immediate savings to society as a whole in reduced reliance on social assistance. Under serving sole-support parents or allowing them to direct their own use of services while apparently equally effective, is considerably more expensive since it results in a sustained reliance on social assistance by a greater number of parents two years later. These immediate savings from a 15% difference in reduced use of social assistance is far in excess of the cost of a comprehensive set of services for a whole group.

This study controlled for changes in client eligibility for social assistance introduced between 1995 and 1999 since their changes affected all groups equally.

A 15% difference in non use of social assistance within a year for mothers with 3 or more children favouring comprehensive care translates into a savings of \$20,000 (income maintenance, rent subsidy, subsidized child care, medications, dentist) x 15 of every 100 mothers = \$300,000 savings within 2 years, in excess of cost providing comprehensive care to all mothers and their children.

Within four years, a large proportion, 57.0% to 66.9%, of sole-support parents were off social assistance regardless of the approach to treatment, although those parents and children who received any kind of known efficacious treatment were twice as likely (20% versus 10%) to exit social assistance within a year at no further cost to society for the proactive treatment.

Recreation services for children not only paid for itself within the first year of follow-up but by four years cut in half the cost of children/youth use of all other health and social services.

As with the two-year follow-up, recreation services four years later continued to pay for itself in lower use of children=s aid, specialists, emergency, physiotherapy, psychologist, public health, nurse services, yet higher use of family counsellor, school counsellor services.

Helping parents and children on welfare pays for itself immediately, maintains the competence of children with a behaviour disorder at the outset and results in at least \$200,000 savings for every 100 mothers treated ... a win, win, win situation.

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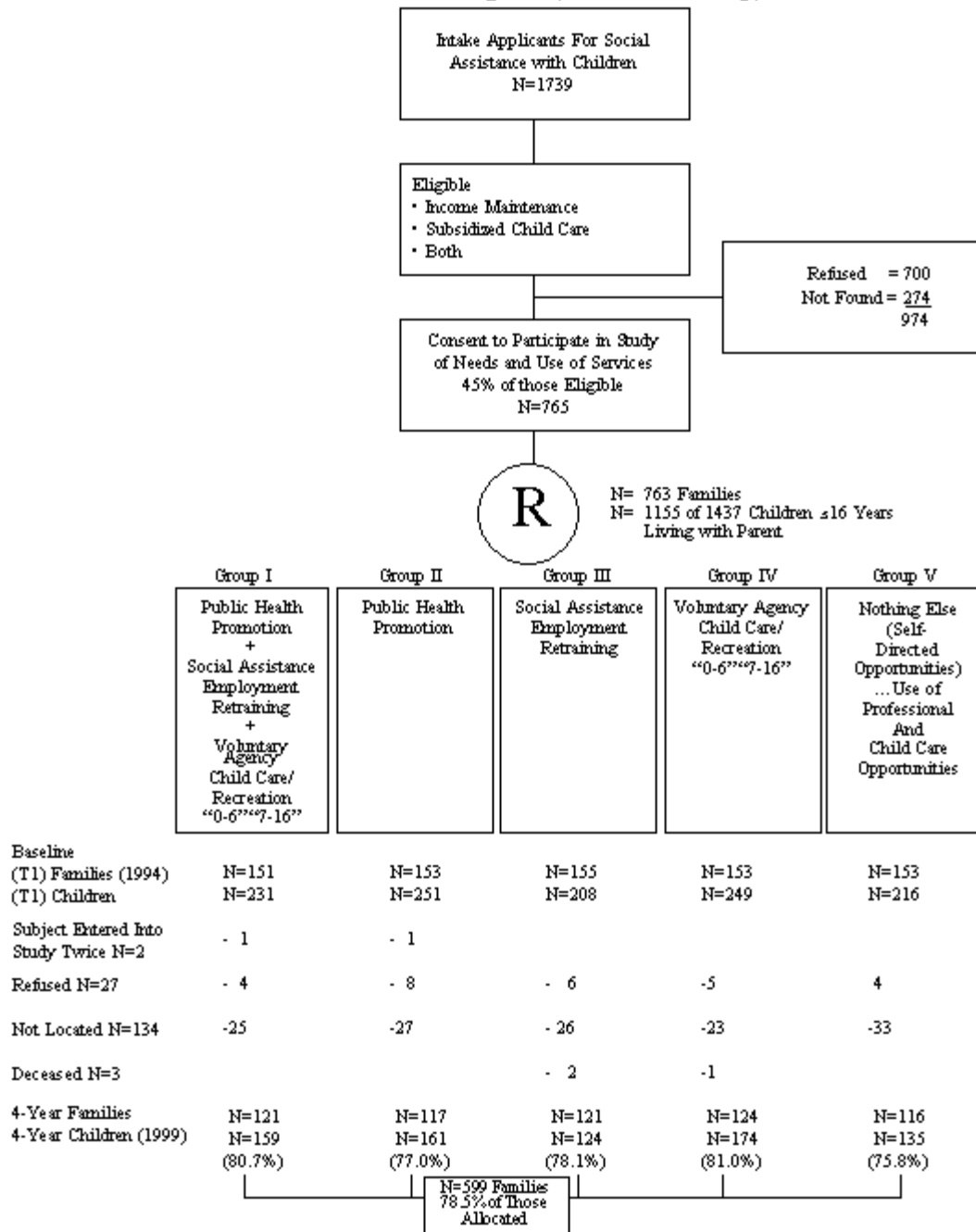
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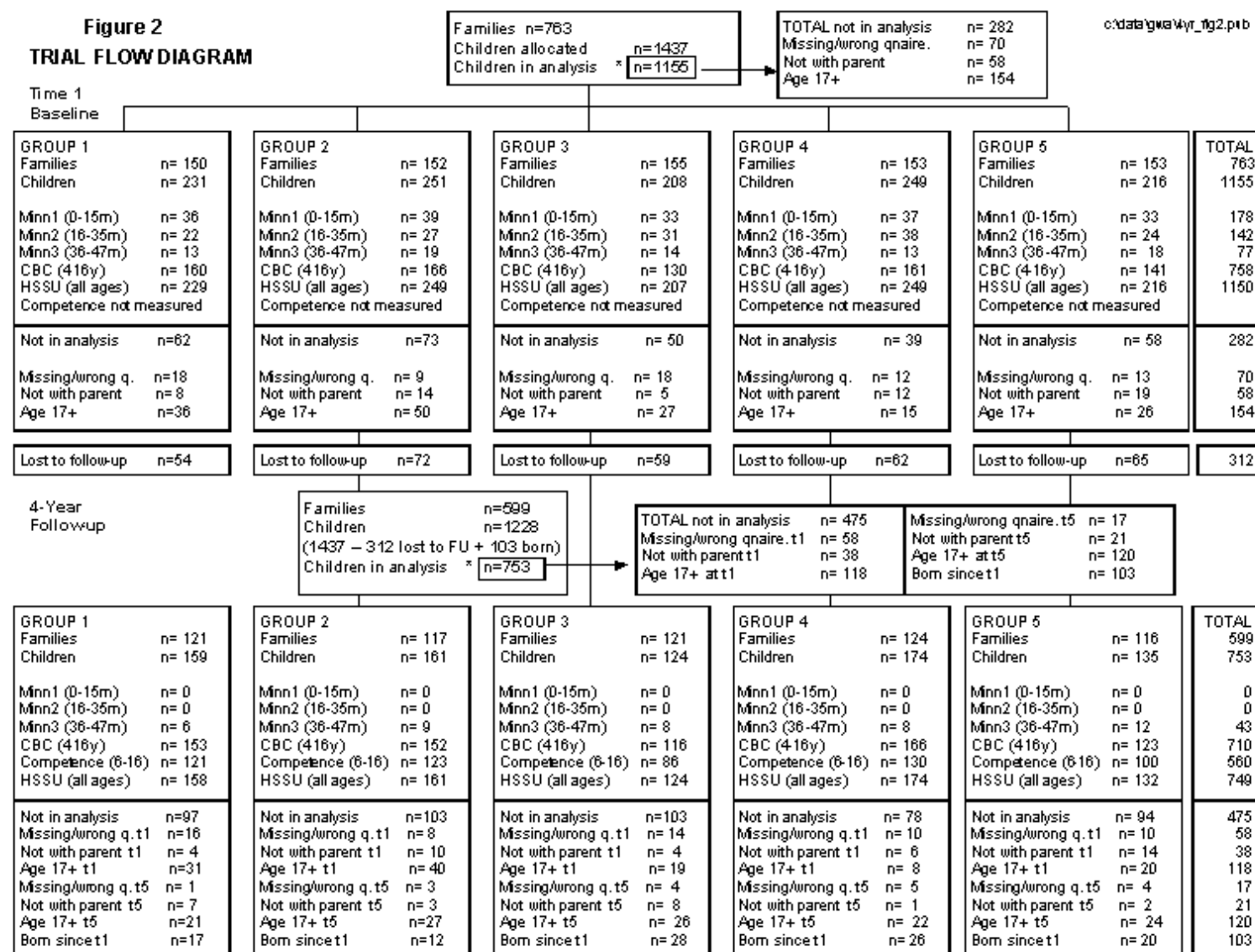
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**Figure 1**  
**Trial Flow Diagram (4-Year Follow-up)**



**Figure 2**  
**TRIAL FLOW DIAGRAM**



**Figure 3  
CALENDAR OF EVENTS**

<b>April (Baseline) 94-95</b>		<b>(2 yr) (4 yr) 95-96, 96-97, 98-99</b>		
<b>Study Phase</b>	<b>1-Year Experimental period intake 765 subjects/year 62/month</b>	<b>[</b> <b>This report Baseline to 4-Year Follow-up</b>		
<b>Methodology</b>	<ul style="list-style-type: none"> <li>. Hire additional research staff</li> <li>. Set up Health Promotion Schedule</li> <li>. Consents</li> <li>. Questionnaire layouts</li> <li>. Preparation of Nurse</li> <li>. Finalizing training for intervention packages</li> </ul>	<ul style="list-style-type: none"> <li>. Baseline measures</li> <li>. Randomly select</li> <li>. Allocate families</li> </ul>	<b>Interviews 599/year 4</b>	<b>Data display Analysis Write-up</b>

**Figure 4  
VARIABLES AND THEIR MEASURES**

<b>CONSTRUCT</b>	<b>VARIABLE</b>	<b>MEASURE</b>
Client Characteristics	# Sociodemographic Information	<ul style="list-style-type: none"> <li>. Income Maintenance Subsidized Child Care Central Intake Application</li> <li>. Baseline Kessler, UM-CIDI<sup>68,69</sup> and DSM III R (SCID) Criteria<sup>70,71</sup></li> </ul>
Programmes (Measure of Dose of Interventions)	# Compliance and Attendance at: <ul style="list-style-type: none"> <li>. Health Promotion Visits</li> <li>. Job Training Sessions</li> <li>. Enriched Child Programmes including SC Care</li> </ul>	<ul style="list-style-type: none"> <li>. Agency Attendance Records</li> </ul>
Effects    Primary:	# Change in Mood # Adjustment <ul style="list-style-type: none"> <li>. Adult Social Adjustment/Coping</li> <li>. Childhood Adjustment</li> </ul>	<ul style="list-style-type: none"> <li>. Kessler, UM-CIDI<sup>68,69</sup></li> <li>. SAS Social Adjustment Scale<sup>72</sup></li> <li>. Moos and Billings, Indices of Coping<sup>73</sup></li> <li>. Offord, 1987 Ontario Child Health Survey<sup>65,66</sup> (...Modified 1983 Achenbach<sup>74,75</sup> "Child Behavioural Inventory") (% With Problems Yes/No) or Minnesota Child Development Inventory<sup>76,77</sup></li> </ul>
Secondary:	# Employment Activities <ul style="list-style-type: none"> <li>. Adult Exit Behaviours</li> <li>. Child</li> </ul>	<ul style="list-style-type: none"> <li>. Months of Job Training (Mean)</li> <li>. Months to Employment<sup>63,64,78</sup></li> <li>. Childhood Competence at T<sub>3,4</sub>: (Achenbach, 1991)<sup>75</sup></li> <li>. Activities</li> <li>. Social</li> <li>. Academic</li> </ul>
Benefits (Costs Averted)	# Social Independence  # Health and Social Service Utilization	<ul style="list-style-type: none"> <li>. Dollar Value of Fewer Months on Social Assistance<sup>63,64,78</sup></li> <li>. Browne et al. 1991<sup>79,80</sup> "Health and Social Service Utilization Inventory Translated into Dollar Values"</li> </ul>

**Figure 5**  
**Trial Flow Diagram for Two-Year Follow-up)**

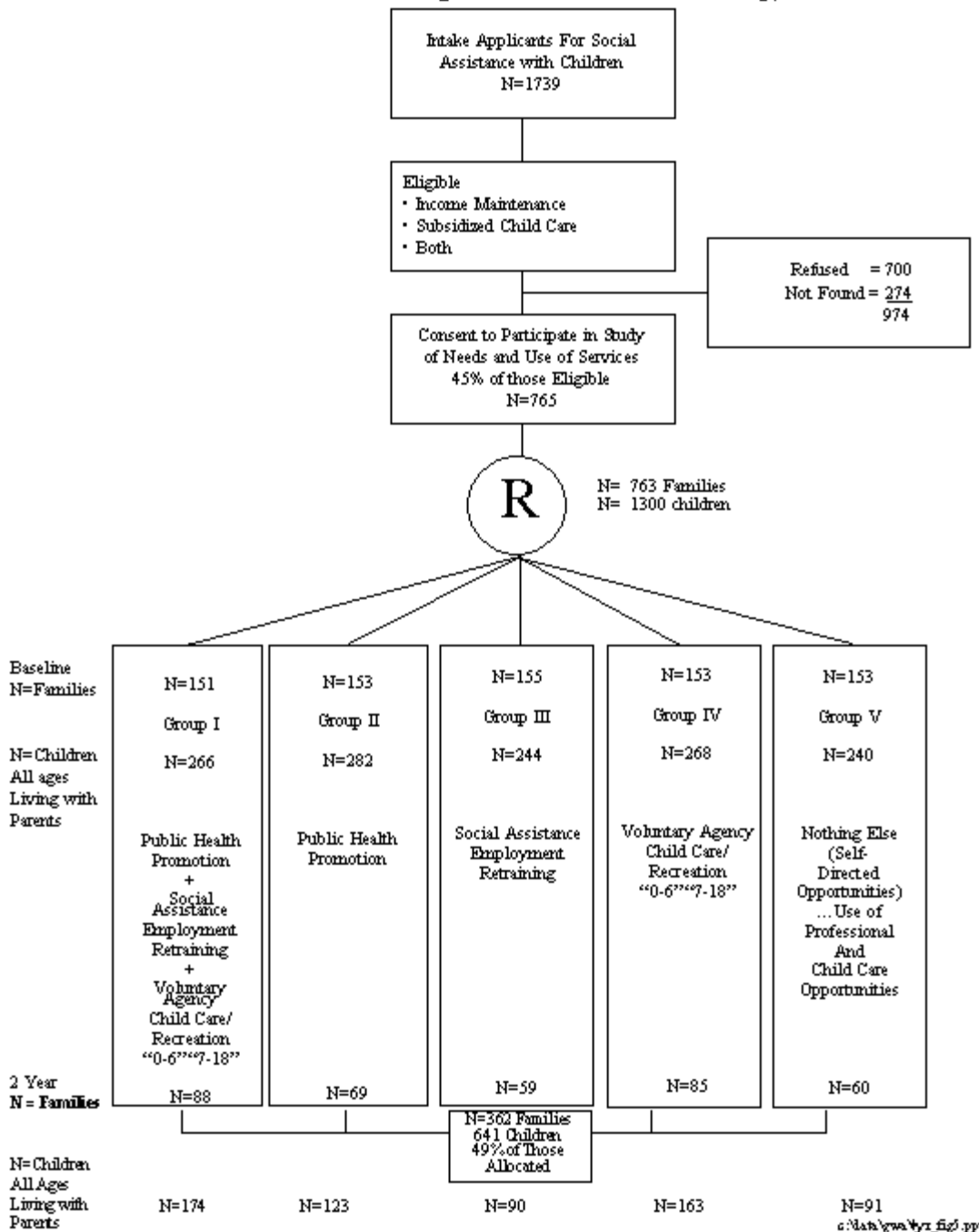
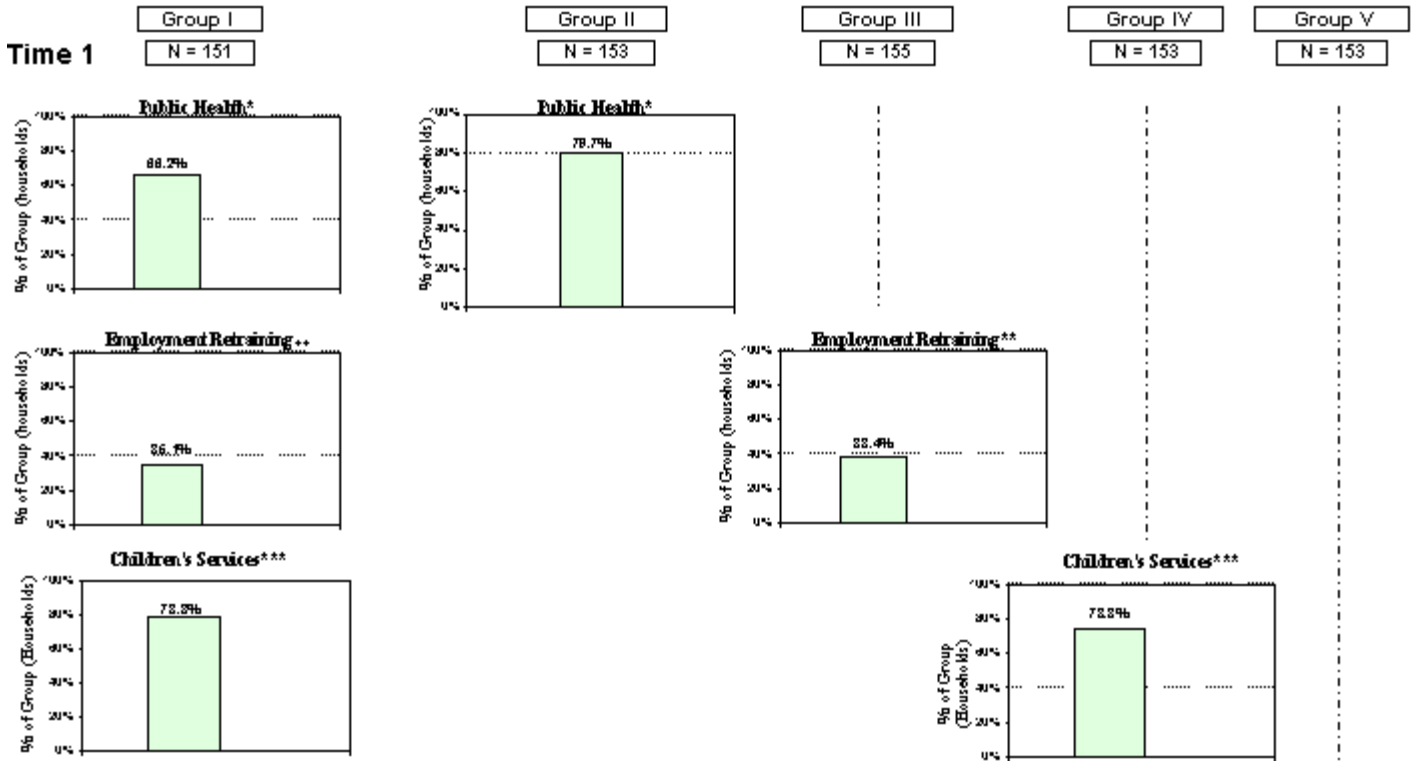


Figure 6

Engagement Rates by Group During Year I



\* Engaged = at least one (1) home or office visit or telephone > 10 min

\*\* Engaged = at least one (1) home or office visit or telephone > 10 min

\*\*\* Engaged = at least one (1) child in at least one (1) program (recreation, daycare, etc.) / per family

**Figure 7**  
**Mix and Intensity of Service Interventions**

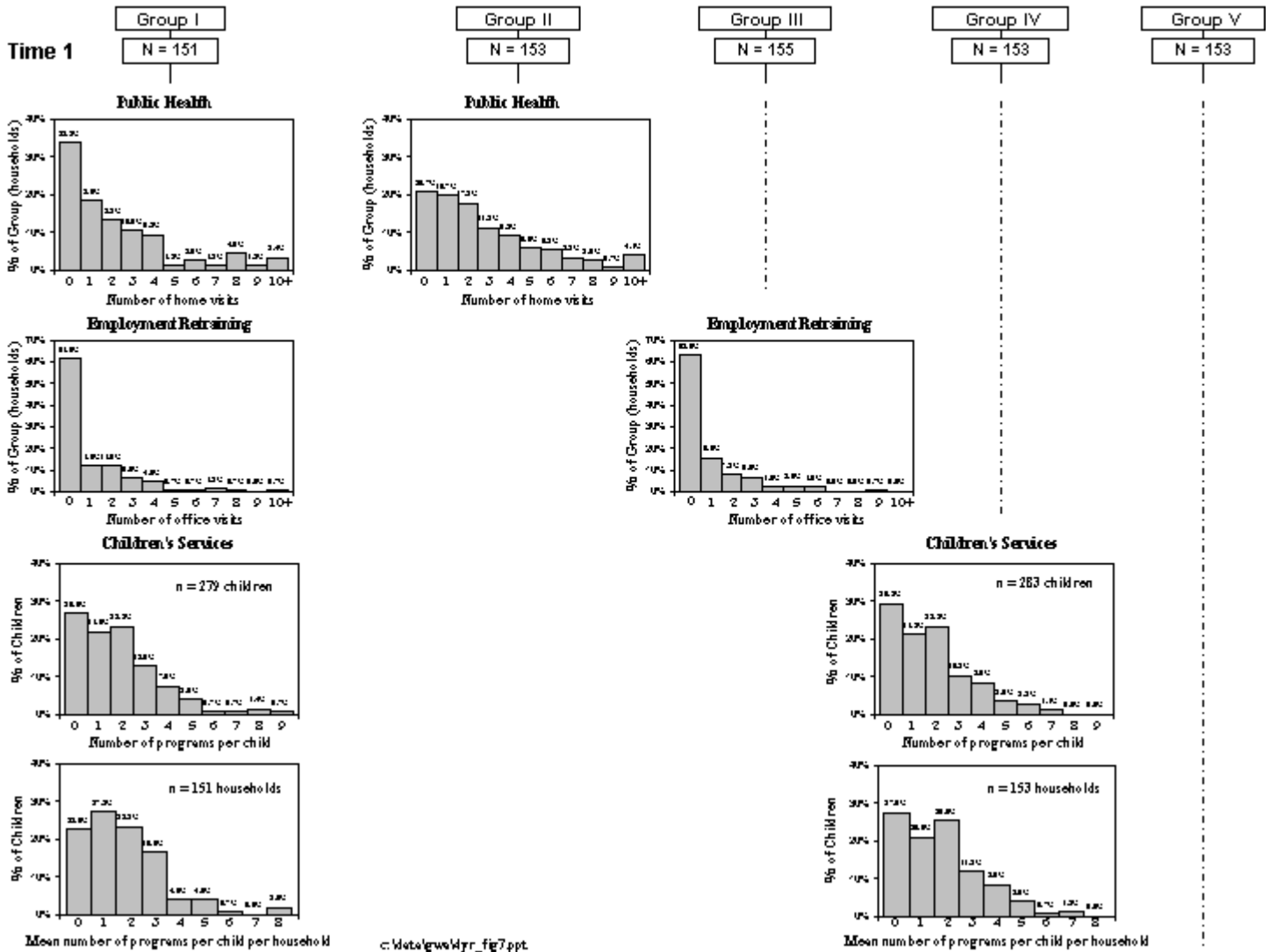


Figure 8  
The Reduction in Proportion of parents With a Mood (Depressive) Disorder  
Receiving Five Approaches to Service at Two Years

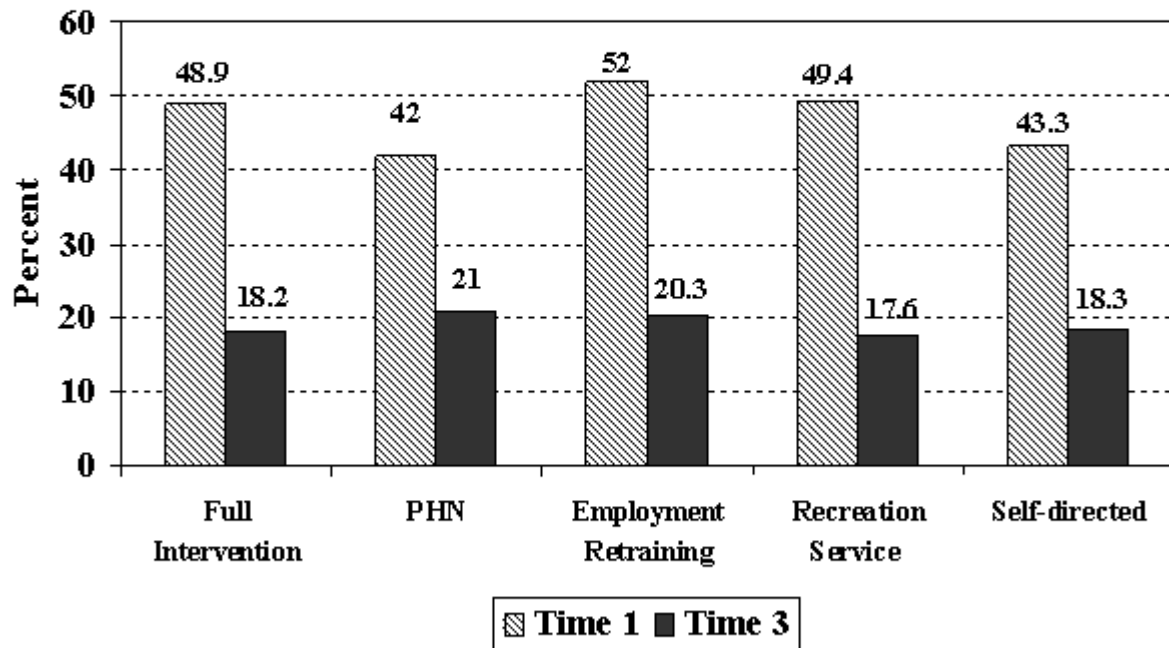


Figure 9  
The Improvement in Social Adjustment Scores in Parents on Social Assistant  
Receiving Five Approaches to Service at Two Years

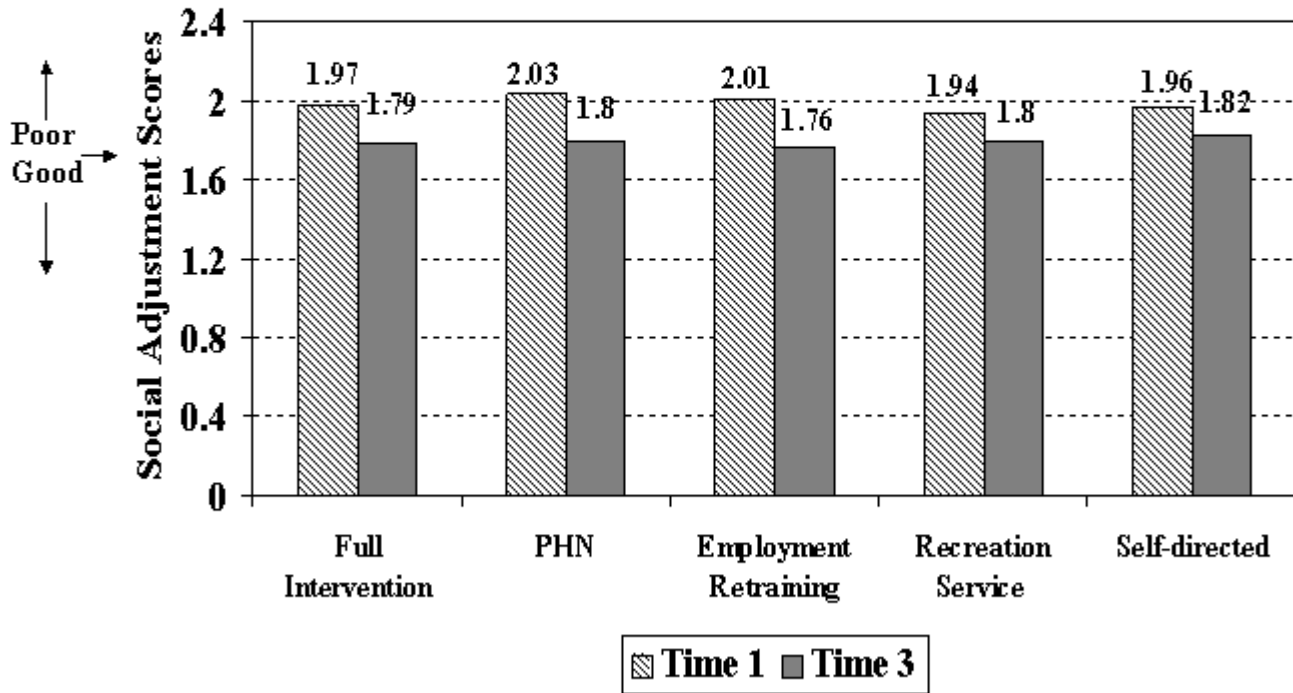
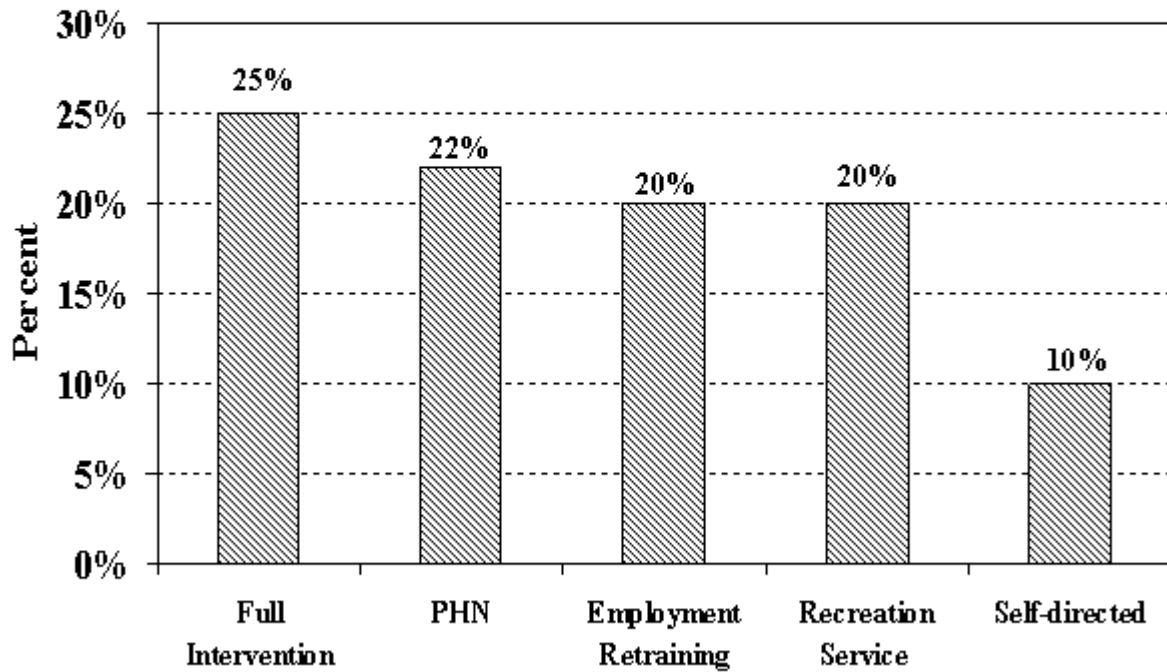


Figure 10  
Exits Per Year: Percent of Single Parents Non Use Of Any Social Assistance in the Previous 12 Months at Two Years



Group I vs. V (Chisquare = 5.23, p=0.02)

Figure 11  
Per Parent annual Expenditures for health and Social Service Utilization  
(Excluded Hospital Expenditure) at Two Years

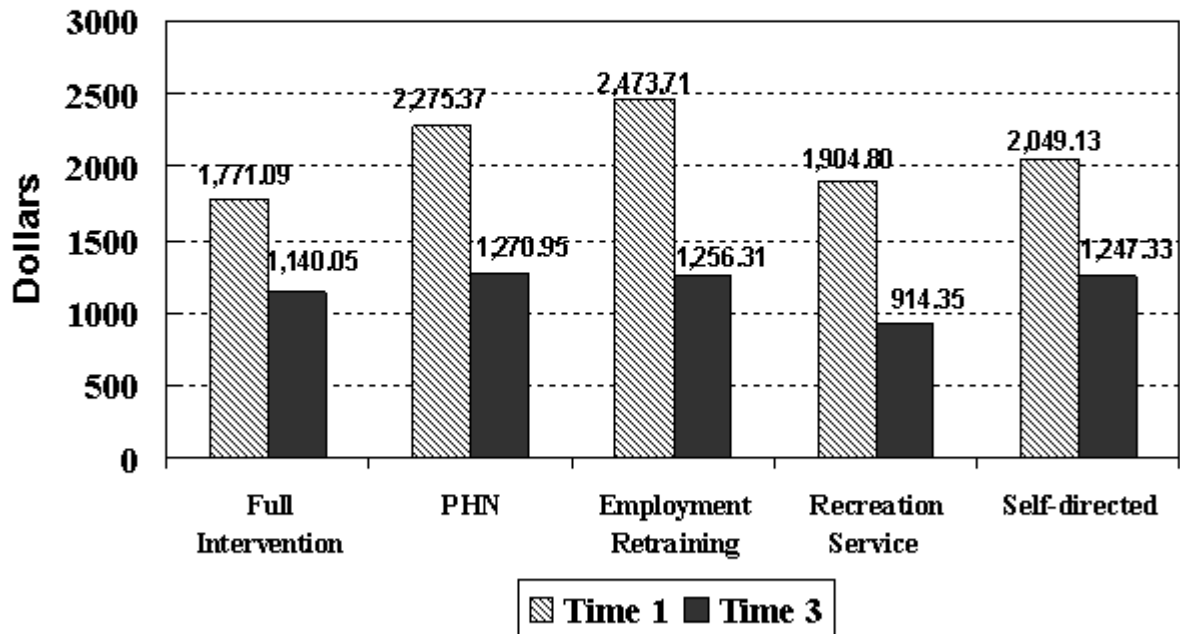
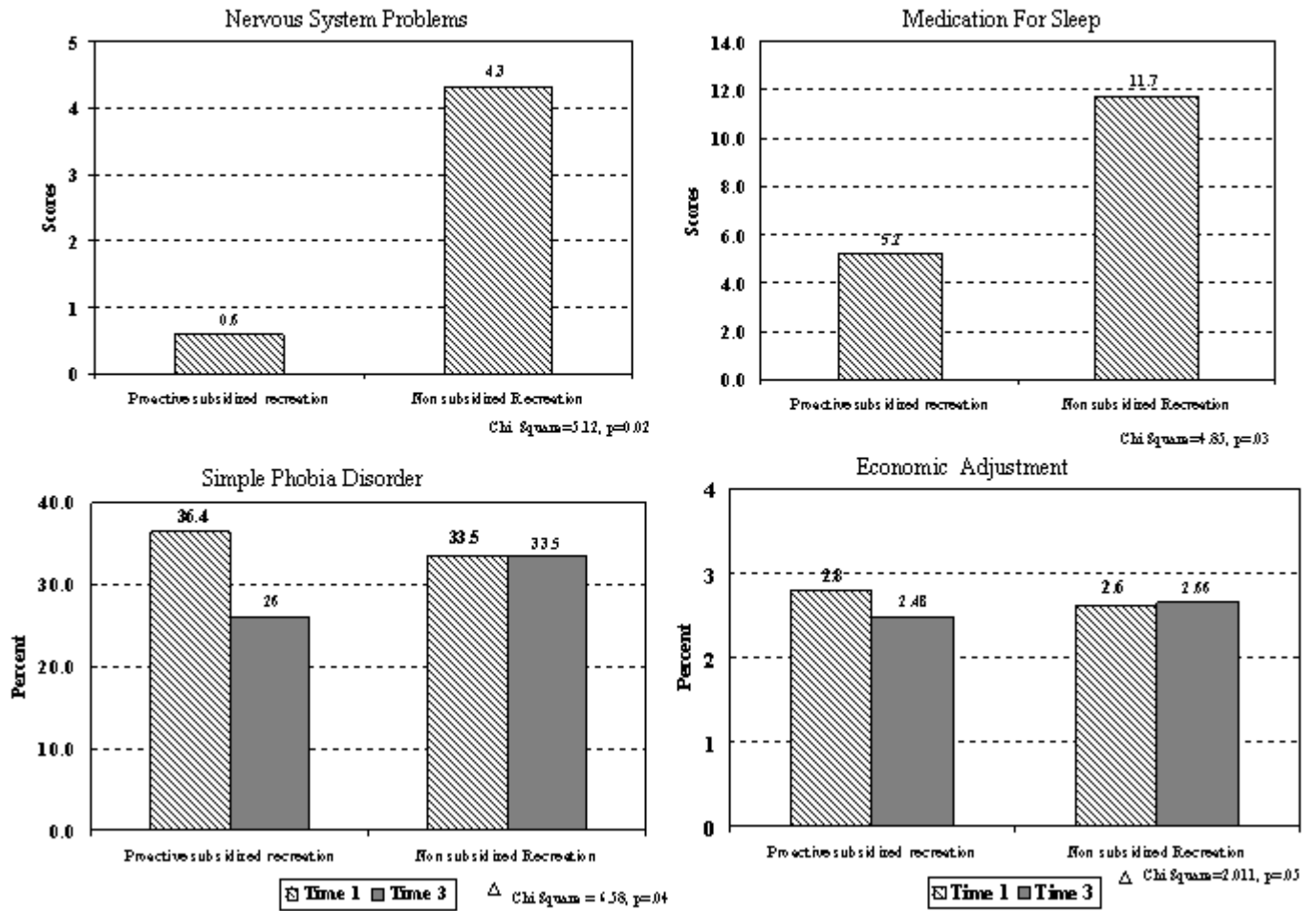
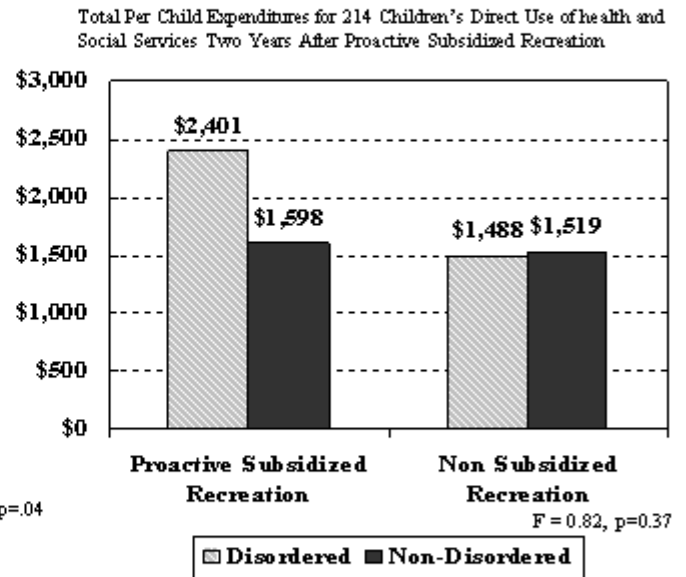
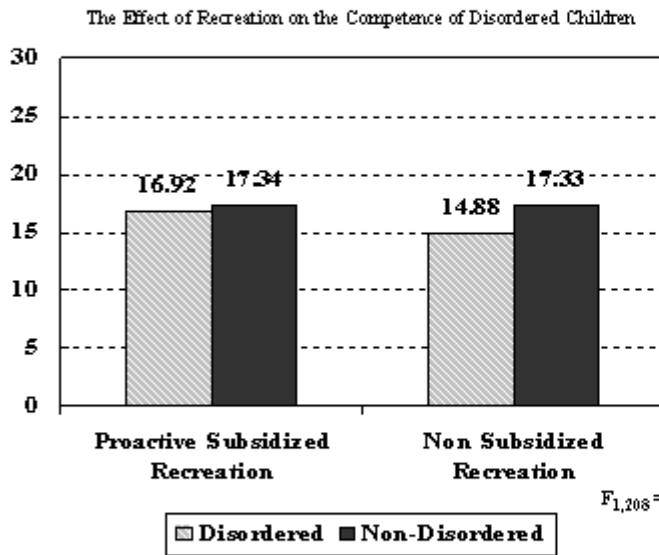


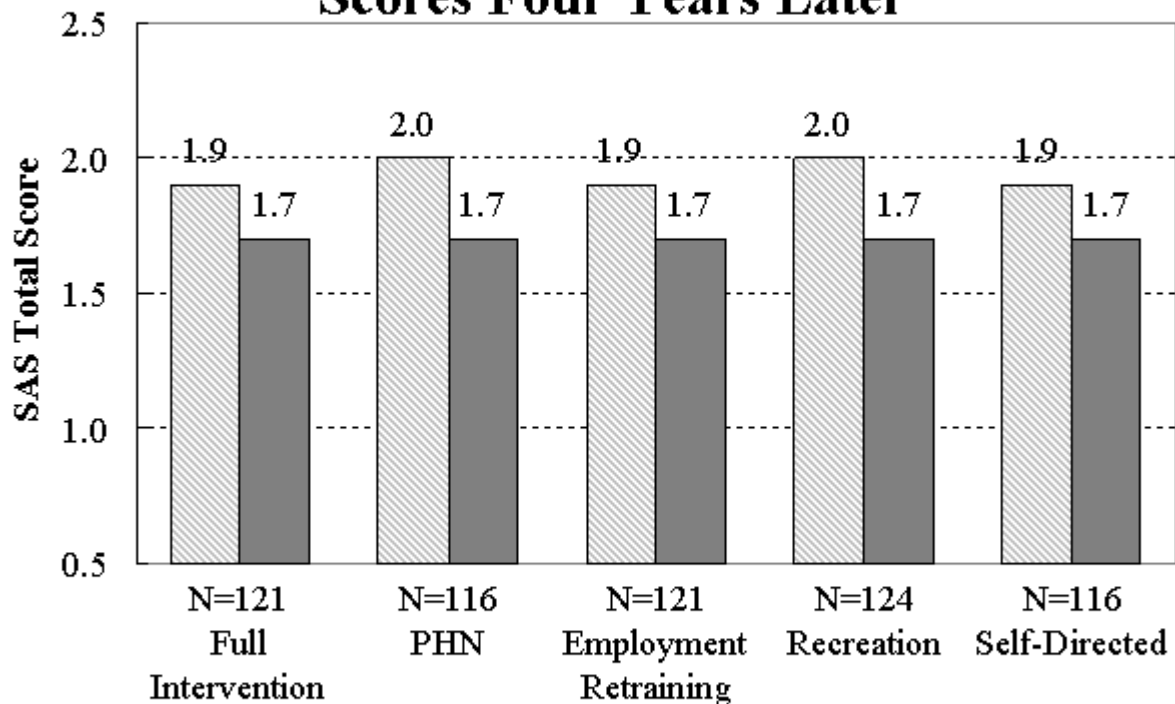
Figure 12  
Parent Outcomes Two Years later



**Figure 13**  
**The Effects and Expense of Age-Appropriate Subsidized**  
**Recreation and/or Child Care**



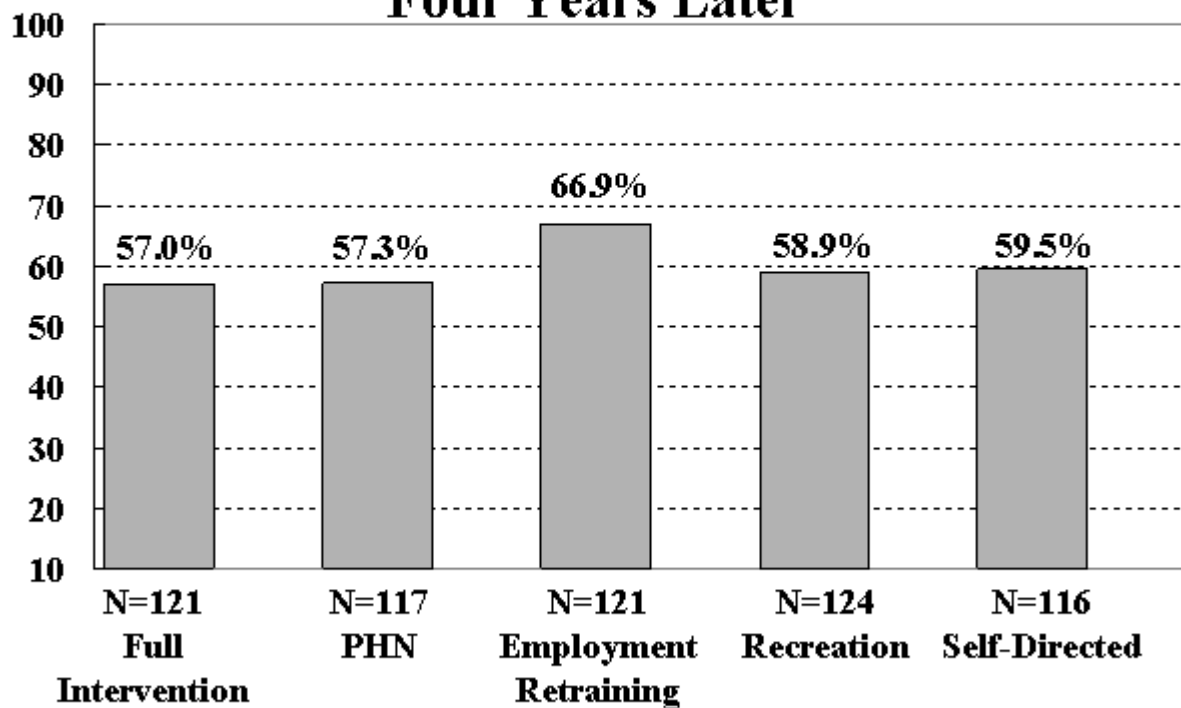
**Figure 14**  
**Improvement in Parental Social Adjustment**  
**Scores Four Years Later**



□ Baseline    ■ 4 Years Later

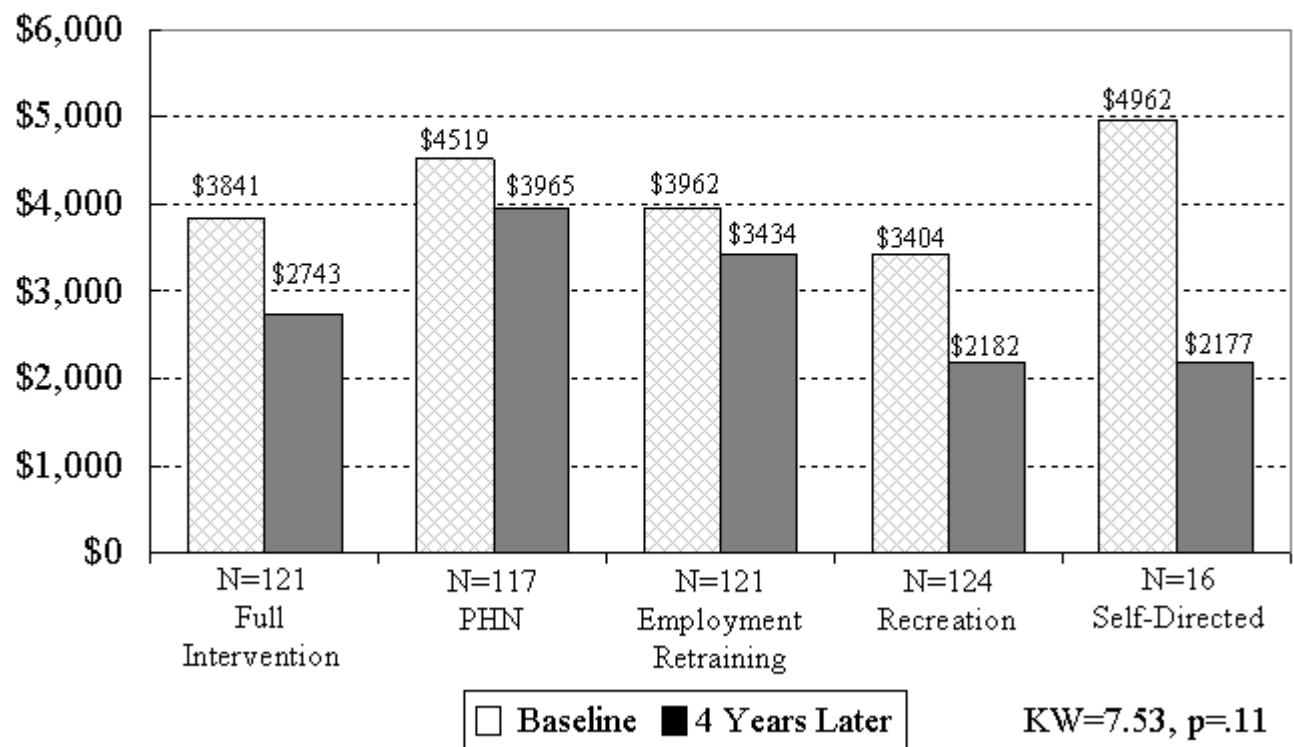
$\Delta F_{4,593}=.55, p=.70$

**Figure 15**  
**Proportion of Parents Not on Social Assistance**  
**Four Years Later**

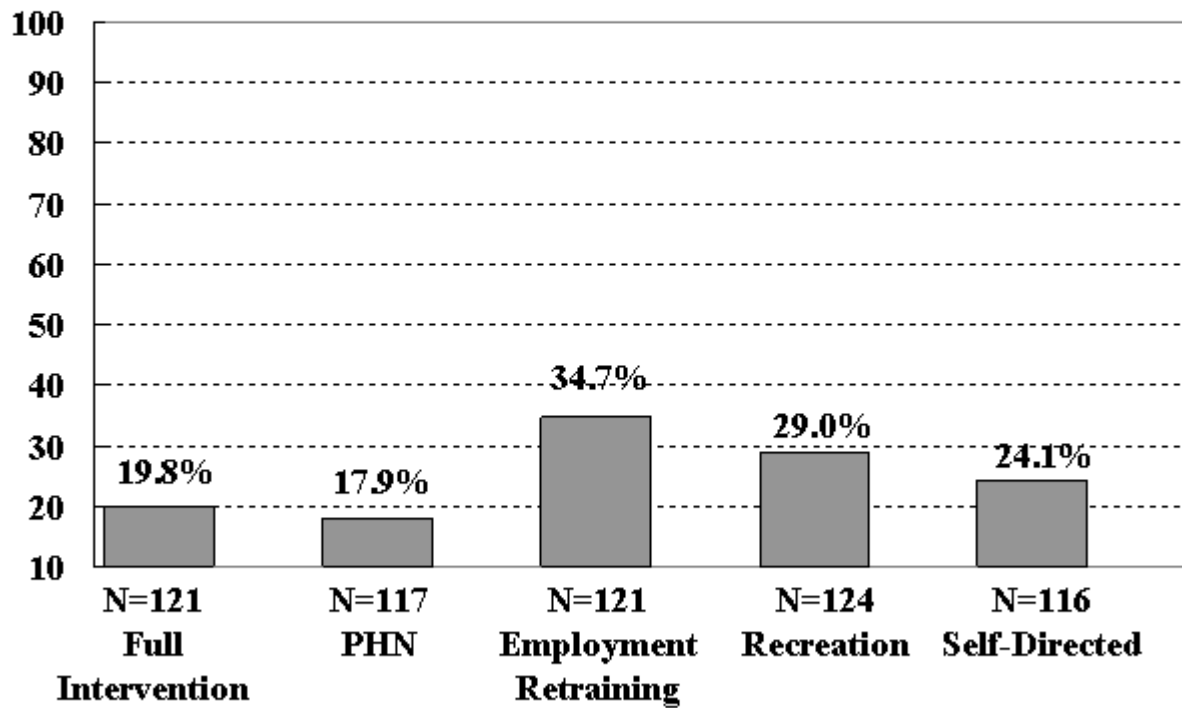


$X^2(4)=3.32, p=.51$

**Figure 16**  
**Per Parent Annual Expenditures for Use of Community Health and Social Services (With Hospital) Four Years Later**

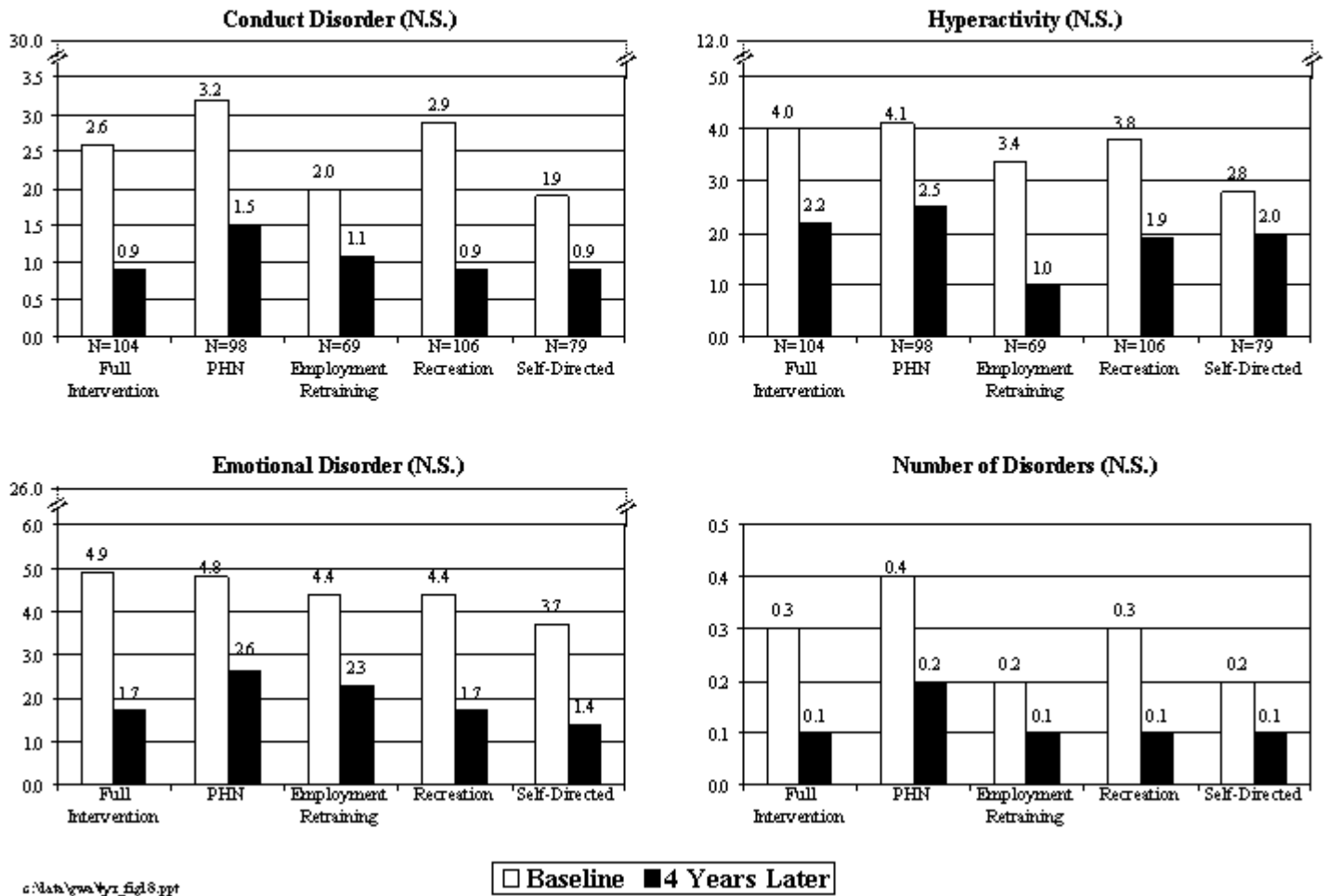


**Figure 17**  
**Proportion of Sole Support Parents**  
**Who Got Married Four Years Later**

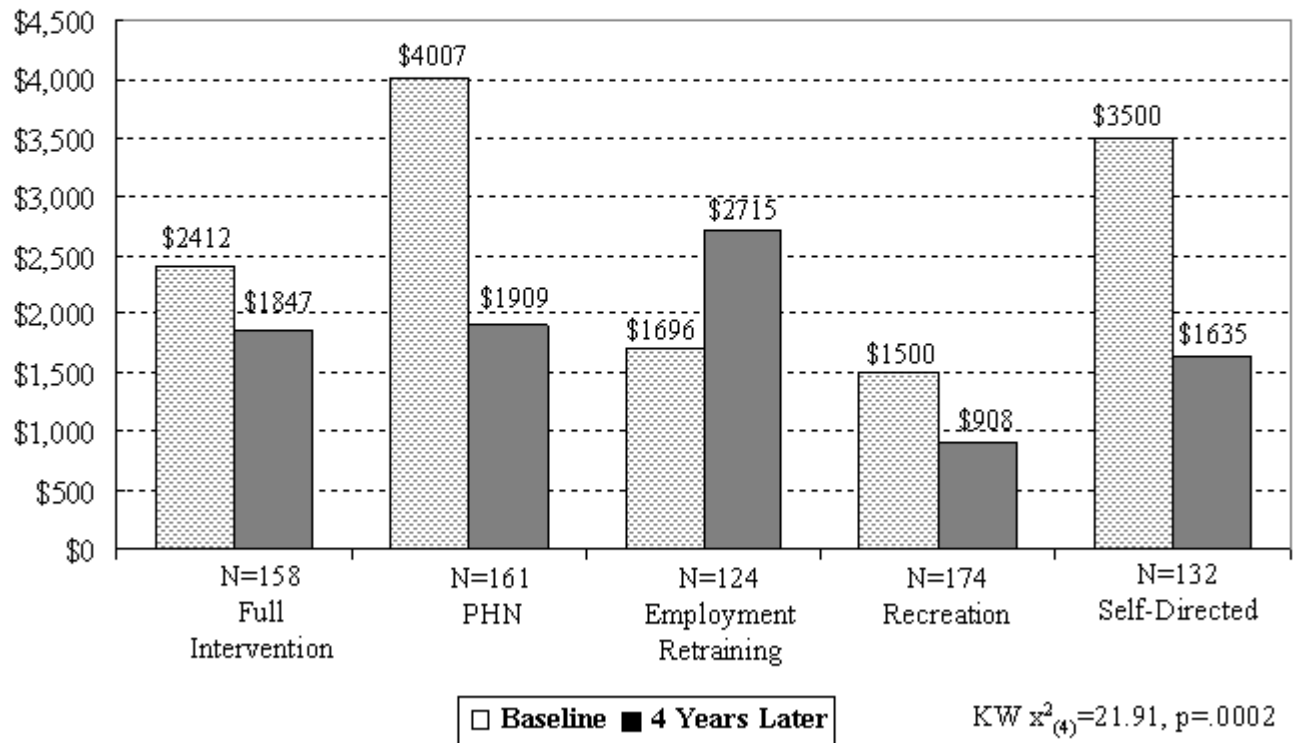


$\chi^2(4)=11.95, p=.02$

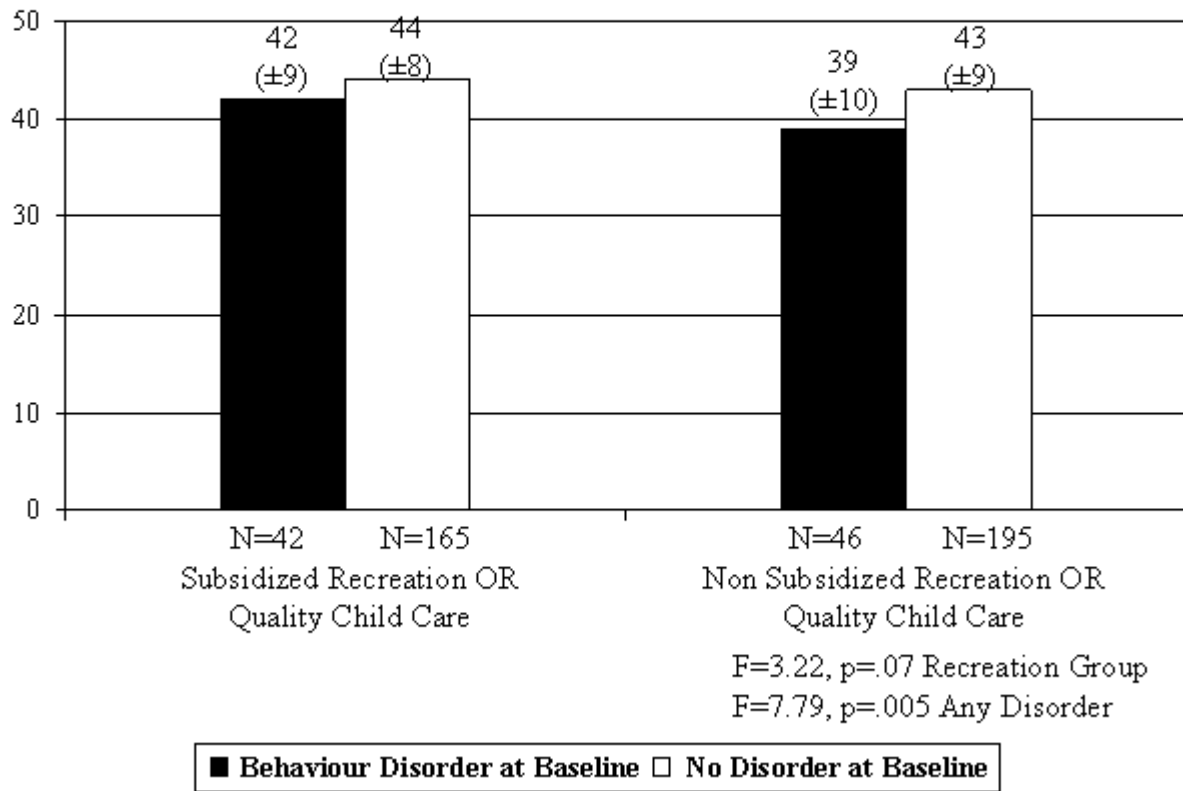
**Figure 18**  
**Behaviour Disorder Scores**  
**in Children and Youth, 4 to 16, in 5 Study Groups**



**Figure 19**  
**Per Child/Youth Total Expenditures for Direct Use of**  
**Health and Social Services by Study Group (Four Years Later)**  
**(N=749) 4 to 16 Year Olds**



**Figure 20**  
**Physical, Social, Academic Competence T Score**  
**Four Years Later With Exposure to**  
**Subsidized Quality Child Care**



**Figure 21**  
**Per Child/Youth Total Expenditures for Direct Use of Health and Social Services (Including Hospital)**



Table 1

**Representativeness of Respondents in 4 Year Follow-up:  
Study Parents Compared to Those Lost (Sociodemographics at Baseline)**

Variables	Total Sample (N=763)		Completed 4 Yr F/U (N=599)		Lost at 4 Yr F/U (N=164)		Test Statistics	
	N	%	N	%	N	%	$\chi^2$	p-value
<b>Group</b>								
Full Intervention	151	19.7%	121		30			
PHN Intervention	153	20.0%	117		36			
Empl. Retraining	155	20.3%	121		34			
Recreation Services	153	20.0%	124		29			
Control	153	20.0%	116		37			
<b>Gender</b>								
Male	25	3.3%	17	2.8%	8	4.9%		
Female	736	96.7%	582	97.2%	156	95.1%	1.67	0.20
<b>Number of Children</b>								
One	344	45.1%	272	45.4%	72	43.9%		
Two	239	31.3%	187	31.2%	52	31.7%		
Three and Up	180	23.6%	140	23.4%	40	24.4%	0.13	0.94
<b>Age Category of Parent</b>								
15-19	46	6.0%	30	5.0%	16	9.8%		
20-24	128	16.8%	99	16.5%	29	17.7%		
25-29	161	21.1%	125	20.9%	36	22.0%		
30-34	154	20.2%	127	21.2%	27	16.5%		
35-39	154	20.2%	121	20.2%	33	20.1%		
40 and Up	120	15.7%	97	16.2%	23	14.0%	6.81	0.24
<b>Age Categories of Oldest Child</b>								
0 thru 5	335	43.9%	264	44.1%	71	43.3%		
6 thru 12	237	31.1%	181	30.2%	56	34.1%		
13 thru 18	132	17.3%	107	17.9%	25	15.2%		
19 and Up	59	7.7%	47	7.8%	12	7.3%	1.22	0.75
<b>Marital Status</b>								
Married Once	4	0.5%	2	0.3%	2	1.2%		
Common Law	7	0.9%	4	0.7%	3	1.8%		
Separated	342	44.8%	266	44.4%	76	46.3%		
Divorced/Annulled	171	22.4%	141	23.5%	30	18.3%		
Widowed	10	1.3%	7	1.2%	3	1.8%		
Remarried	1	0.1%	1	0.2%				
Never Married	228	29.9%	178	29.7%	50	30.5%	6.24	0.40
<b>Relationship to Children</b>								
Mother/Stepmother	737	96.6%	582	97.2%	155	94.5%		
Father/Stepfather	25	3.3%	16	2.7%	9	5.5%		
Other Relative Caregiver	1	0.1%	1	0.2%			3.48	0.18

Table 1 (Cont-d)

Representativeness of Respondents in 4 Year Follow-up:  
Study Parents Compared to Those Lost (Sociodemographics at Baseline)

Variables	Total Sample (N=763)		Completed 4 Yr F/U (N=599)		Lost at 4 Yr F/U (N=164)		Test Statistics	
	N	%	N	%	N	%	$\chi^2$	p-value
<b>Country of Birth</b>								
Canada	611	80.3%	483	80.9%	128	78.0%		
United Kingdom	32	4.2%	27	4.5%	5	3.0%		
Italy	3	0.4%			3	1.8%		
Yugoslavia	7	0.9%	6	1.0%	1	0.6%		
Poland	7	0.9%	4	0.7%	3	1.8%		
Portugal	12	1.6%	11	1.8%	1	0.6%		
Netherlands	3	0.4%	3	0.5%				
Germany	2	0.3%	2	0.3%				
Hungary	4	0.5%	3	0.5%	1	0.6%		
Greece	1	0.1%	1	0.2%				
Czechoslovakia	2	0.3%	2	0.3%				
Former USSR	1	0.1%	1	0.2%				
Other European	3	0.4%	3	0.5%				
Pakistan	1	0.1%			1	0.6%		
India	4	0.5%	3	0.5%	1	0.6%		
Vietnam	4	0.5%	2	0.3%	2	1.2%		
Philippines	5	0.7%	4	0.7%	1	0.6%		
Other Asian Country	5	0.7%	3	0.5%	2	1.2%		
United States	9	1.2%	9	1.5%				
Jamaica	10	1.3%	9	1.5%	1	0.6%		
Guyana	3	0.4%	3	0.5%				
Other Caribbean	10	1.3%	5	0.8%	5	3.0%		
Africa	6	0.8%	4	0.7%	2	1.2%		
South America	4	0.5%	3	0.5%	1	0.6%		
Central America	7	0.9%	3	0.5%	4	2.4%		
Other	5	0.7%	3	0.5%	2	1.2%		
<b>Country of Birth</b>								
Canadian	611	80.1%	483	80.6%	128	78.0%		
Other	152	19.9%	116	19.4%	36	22.0%	0.54	0.46
<b>How Long Been in Canada</b>								
< 1 Year	5	3.5%	4	3.6%	1	2.9%		
1-5 Years	23	16.0%	16	14.5%	7	20.6%		
6-10 Years	38	26.4%	28	25.5%	10	29.4%		
11-15 Years	18	12.5%	12	10.9%	6	17.6%		
16-20 Years	17	11.8%	15	13.6%	2	5.9%		
20 Years or More	43	29.9%	35	31.8%	8	23.5%	3.65	0.60
<b>First Language Spoken as a Child</b>								
French	22	2.9%	16	2.7%	6	3.7%		
English	646	84.7%	512	85.5%	134	81.7%		
German	4	0.5%	4	0.7%				
Italian	3	0.4%	1	0.2%	2	1.2%		
Portuguese	12	1.6%	12	2.0%				
Dutch	2	0.3%	2	0.3%				
Greek	1	0.1%	1	0.2%				
Spanish	11	1.4%	7	1.2%	4	2.4%		

Table 1 (Cont-d)

Representativeness of Respondents in 4 Year Follow-up:  
Study Parents Compared to Those Lost (Sociodemographics at Baseline)

Variables	Total Sample (N=763)		Completed 4 Yr F/U (N=599)		Lost at 4 Yr F/U (N=164)		Test Statistics	
	N	%	N	%	N	%	$\chi^2$	p-value
Hungarian	6	0.8%	5	0.8%	1	0.6%		
Chinese	1	0.1%	1	0.2%				
Vietnamese	3	0.4%	1	0.2%	2	1.2%		
Hindi	1	0.1%	1	0.2%				
Urdu	1	0.1%			1	0.6%		
Other	50	6.6%	36	6.0%	14	8.5%		
<b>First Language Spoken</b>								
English or French	668	87.5%	528	88.1%	140	85.4%	0.91	0.34
Other	95	12.5%	71	11.9%	24	14.6%		
<b>Language Spoken at Home Now</b>								
French	10	1.3%	6	1.0%	4	2.4%		
English	715	93.8%	565	94.5%	150	91.5%		
Portuguese	4	0.5%	4	0.7%				
Spanish	3	0.4%	2	0.3%	1	0.6%		
Hungarian	1	0.1%	1	0.2%				
Chinese	1	0.1%	1	0.2%				
Vietnamese	3	0.4%	1	0.2%	2	1.2%		
Tamil	1	0.1%	1	0.2%				
Urdu	1	0.1%			1	0.6%		
Other	23	3.0%	17	2.8%	6	3.7%		
<b>Language Spoken at Home</b>								
English or French	725	95.0%	571	95.3%	154	93.9%	0.55	0.46
Other	38	5.0%	28	4.7%	10	6.1%		
<b>Ethnic/Cultural Group Most Identify With</b>								
African	5	0.7%	4	0.7%	1	0.6%		
Australian	2	0.3%	1	0.2%	1	0.6%		
Asian	12	1.6%	8	1.3%	4	2.4%		
Caribbean	23	3.0%	19	3.2%	4	2.4%		
European	37	4.8%	30	5.0%	7	4.3%		
Latin American	6	0.8%	3	0.5%	3	1.8%		
Middle Eastern	4	0.5%	2	0.3%	2	1.2%		
North American Indigenous	11	1.4%	7	1.2%	4	2.4%		
American	4	0.5%	3	0.5%	1	0.6%		
Canadian	657	86.1%	521	87.0%	136	82.9%		
Other	2	0.3%	1	0.2%	1	0.6%		
<b>Ethnicity</b>								
Canadian	657	86.1%	521	87.0%	136	82.9%	1.77	0.18
Other	106	13.9%	78	13.0%	28	17.1%		
<b>Religious Practice When Growing Up</b>								
Buddhist	2	0.3%	1	0.2%	1	0.6%		
Catholic	257	33.7%	201	33.6%	56	34.1%		
Hindu	2	0.3%	1	0.2%	1	0.6%		

Table 1 (Cont-d)

Representativeness of Respondents in 4 Year Follow-up:  
Study Parents Compared to Those Lost (Sociodemographics at Baseline)

Variables	Total Sample (N=763)		Completed 4 Yr F/U (N=599)		Lost at 4 Yr F/U (N=164)		Test Statistics	
	N	%	N	%	N	%	$\chi^2$	p-value
Islam	4	0.5%	3	0.5%	1	0.6%		
Jewish	4	0.5%	3	0.5%	1	0.6%		
Protestant	285	37.4%	224	37.4%	61	37.2%		
None	115	15.1%	88	14.7%	27	16.5%		
Other	94	12.3%	78	13.0%	16	9.8%		
<b>Religious Affiliation, Growing Up</b>								
Some	648	84.9%	511	85.3	137	83.5		
None	115	15.1%	88	14.7	27	16.5	0.32	0.57
<b>Religious Practice Now</b>								
Buddhist	4	0.5%	3	0.5%	1	0.6%		
Catholic	171	22.4%	137	22.9%	34	20.7%		
Hindu	1	0.1%			1	0.6%		
Islam	4	0.5%	3	0.5%	1	0.6%		
Jewish	4	0.5%	3	0.5%	1	0.6%		
Protestant	175	22.9%	135	22.5%	40	24.4%		
None	320	41.9%	253	42.2%	67	40.9%		
Other	84	11.0%	65	10.9%	19	11.6%		
<b>Religious Affiliation, Now</b>								
Some	443	58.1%	346	57.8%	97	59.1%		
None	320	41.9%	253	42.2%	67	40.9%	4.32	0.74
<b>Describe as a Visible Minority</b>								
Yes	115	15.3%	84	14.3%	31	18.9%		
No	638	84.7%	505	85.7%	133	81.1%	2.14	0.14
<b>Type of Job that Respondent Worked at the Longest</b>								
Never employed/homemaker	33	4.3%	21	3.5%	12	7.3%		
Self-employed professional	7	0.9%	7	1.2%				
Employed professional	33	4.3%	26	4.3%	7	4.3%		
High level management	5	0.7%	5	0.8%				
Semi-professional	49	6.4%	38	6.3%	11	6.7%		
Technician	7	0.9%	5	0.8%	2	1.2%		
Middle management	17	2.2%	13	2.2%	4	2.4%		
Supervisor	6	0.8%	6	1.0%				
Skilled clerical, sales and service	90	11.8%	80	13.4%	10	6.1%		
Skilled crafts and trades	31	4.1%	23	3.8%	8	4.9%		
Semi-skilled clerical, sales and service	128	16.8%	109	18.2%	19	11.6%		
Semi-skilled manual	60	7.9%	48	8.0%	12	7.3%		
Unskilled clerical, sales and service	177	23.2%	137	22.9%	40	24.4%		
Unskilled manual	115	15.1%	79	13.2%	36	22.0%		
Farm labourer	4	0.5%	2	0.3%	2	1.2%		
Other	1	0.1%			1	0.6%		
<b>Longest Job</b>								
Professional/self-employed	45	5.9%	38	6.3%	7	4.3%		
	79	10.4%	62	10.4%	17	10.4%		

Table 1 (Cont-d)

Representativeness of Respondents in 4 Year Follow-up:  
Study Parents Compared to Those Lost (Sociodemographics at Baseline)

Variables	Total Sample (N=763)		Completed 4 Yr F/U (N=599)		Lost at 4 Yr F/U (N=164)		Test Statistics	
	N	%	N	%	N	%	$\chi^2$	p-value
Management/supervisors	121	15.9%	103	17.2%	18	11.0%	16.66	0.01
Skilled clerical, sales and trades	188	24.6%	157	26.2%	31	18.9%		
Semi-skilled clerical, sales and trades	296	38.8%	218	36.4%	78	47.6%		
Unskilled	34	4.5%	21	3.5%	13	7.9%		
Not employed								
<b>Current Employment Status at Baseline(First Priority)</b>							10.33	0.17
Full time work for pay	33	4.3%	27	4.5%	6	3.7%		
Part time work for pay	94	12.4%	74	12.4%	20	12.3%		
Homemaker	421	55.4%	320	53.6%	101	62.0%		
Student	37	4.9%	33	5.5%	4	2.5%		
Retired from work for pay	1	0.1%			1	0.6%		
Disabled/unable to work for pay	29	3.8%	24	4.0%	5	3.1%		
Unemployed	140	18.4%	114	19.1%	26	16.0%		
Volunteer	5	0.7%	5	0.8%				
<b>In the Next Year:</b>								
Plan to enrol in a course or program							0.02	0.88
Yes	424	55.6%	332	55.4%	92	56.1%		
No	339	44.4%	267	44.6%	72	43.9%		
Plan to complete a course or program							0.43	0.51
Yes	281	36.8%	217	36.2%	64	39.0%		
No	482	63.2%	382	63.8%	100	61.0%		
Plan to find paid work part time							1.07	0.30
Yes	322	42.2%	247	41.2%	75	45.7%		
No	441	57.8%	352	58.8%	89	54.3%		
Plan to find paid work full time							0.78	0.38
Yes	283	37.1%	227	37.9%	56	34.1%		
No	480	62.9%	372	62.1%	108	65.9%		

**Table 1 (Cont-d)**

**Representativeness of Respondents in 4 Year Follow-up:  
Study Parents Compared to Those Lost (Sociodemographics at Baseline)**

<b>Source of Income in the Past 12 Months</b>							
GWA	557	73.0%	427	71.3%	130	79.3%	not tested*
FBA (Mother Allowance)	292	38.3%	239	39.9%	53	32.3%	
Unemployment Insurance	105	13.8%	88	14.7%	17	10.4%	
Wages/salary	329	43.1%	262	43.7%	67	40.9%	
Family	56	7.3%	43	7.2%	13	7.9%	
Marriage	156	20.4%	125	20.9%	31	18.9%	
Alimony or child support	177	23.2%	137	22.9%	40	24.4%	
Other income	163	21.4%	132	22.0%	31	18.9%	
Missing	1	0.1%	1	0.2%			
<b>Income Source, Calculated</b>							
Any Social Assistance	748	98.0%	587	98.0%	161	98.2%	
Wages and No Social Assistance	9	1.2%	7	1.2%	2	1.2%	
Other: No wages, No Social Assistance	6	0.8%	5	0.8%	1	0.6%	0.09      0.96

\* Income source pooled cannot be tested; cases appear more than once in cells.

Table 2

Representativeness of Respondents in 4 Year Follow-up:  
Study Parents Compared to Those Lost on Health Status at Baseline

Variables	Total Sample (N=763)		Completed 4 Yr F/U (N=599)		Lost at 4 Yr F/U (N=164)		Test Statistics	
	N	%	N	%	N	%	$\chi^2$	p-value
<b>Perceived Health</b>								
Excellent	172	22.6%	138	23.2%	34	20.7%		
Very good	292	38.4%	233	39.1%	59	36.0%		
Good	195	25.7%	148	24.8%	47	28.7%		
Fair	72	9.5%	53	8.9%	19	11.6%		
Poor	29	3.8%	24	4.0%	5	3.0%	2.70	0.61
<b>Worried about Health in Past 6 Months</b>								
Hardly ever	437	57.7%	349	58.9%	88	53.7%		
Less than half the time	158	20.9%	125	21.1%	33	20.1%		
More than half the time	74	9.8%	53	8.9%	21	12.8%		
Most of the time	88	11.6%	66	11.1%	22	13.4%	3.20	0.36
<b>Pain or Discomfort Experience</b>								
Free of pain and discomfort	407	54.4%	322	55.0%	85	52.1%		
Pain that does not limit activities	134	17.9%	97	16.6%	37	22.7%		
Pain that prevents a few activities	91	12.2%	76	13.0%	15	9.2%		
Pain that prevents some activities	66	8.8%	53	9.1%	13	8.0%		
Pain that prevents most activities	50	6.7%	37	6.3%	13	8.0%	5.05	0.28
<b>Number of Health Conditions</b>								
None	257	33.7%	209	34.9%	48	29.3%		
One	226	29.6%	173	28.9%	53	32.3%		
Two	145	19.0%	111	18.5%	34	20.7%		
Three	135	17.7%	106	17.7%	29	17.7%	2.05	0.56
<b>Type of Health Events/Health Conditions</b>								
No health problem	257	33.7%	209	34.9%	48	29.3%		
Infectious and parasitic disease	87	11.4%	70	11.7%	17	10.4%		
Neoplasm	4	0.5%	1	0.2%	3	1.8%		
Endocrine and metabolic disease	29	3.8%	22	3.7%	7	4.3%		
Blood and blood forming organs	6	0.8%	5	0.8%	1	0.6%		
Mental disorders	54	7.1%	41	6.8%	13	7.9%		
Nervous systems and sense organs	28	3.7%	21	3.5%	7	4.3%		
Circulatory system	20	2.6%	13	2.2%	7	4.3%		
Respiratory system	36	4.7%	25	4.2%	11	6.7%		
Digestive system	28	3.7%	21	3.5%	7	4.3%		

Variables	Total Sample (N=763)		Completed 4 Yr F/U (N=599)		Lost at 4 Yr F/U (N=164)		Test Statistics	
	N	%	N	%	N	%	$\chi^2$	p-value
Genitourinary system	19	2.5%	15	2.5%	4	2.4%		
Pregnancy and complications	65	8.5%	50	8.3%	15	9.1%		
Skin and subcutaneous tissue	20	2.6%	17	2.8%	3	1.8%		
Musculoskeletal and connective tissue	68	8.9%	54	9.0%	14	8.5%		
Congenital anomalies	1	0.1%	1	0.2%				
Perinatal	2	0.3%	2	0.3%				
Symptoms, signs and ill-defined	34	4.5%	30	5.0%	4	2.4%		
Injury and poisoning	4	0.5%	1	0.2%	3	1.8%		
Supplementary codes	1	0.1%	1	0.2%				
<b>Mental Health Issue</b>								
Yes	85	11.1%	68	11.4%	17	10.4%		
No	678	88.9%	531	88.6%	147	89.6%	0.13	0.72
<b>In the past 6 months, taken any medications for</b>								
<b>Cold/Flu</b>								
Yes	271	35.5%	213	35.6%	58	35.4%		
No	492	64.5%	386	64.4%	106	64.6%	0.00	0.96
<b>Heart problem</b>								
Yes	9	1.2%	7	1.2%	2	1.2%		
No	754	98.8%	592	98.8%	162	98.8%	0.00	0.96
<b>Chest problem (allergies or asthma)</b>								
Yes	126	16.5%	101	16.9%	25	15.2%		
No	637	83.5%	498	83.1%	139	84.8%	0.24	0.62
<b>Blood pressure</b>								
Yes	22	2.9%	19	3.2%	3	1.8%		
No	741	97.1%	580	96.8%	161	98.2%	0.83	0.36
<b>Pain (relief from headache, arthritis)</b>								
Yes	448	58.7%	351	58.6%	97	59.1%		
No	315	41.3%	248	41.4%	67	40.9%	0.02	0.90
<b>Stomach trouble</b>								
Yes	117	15.3%	96	16.0%	21	12.8%		
No	646	84.7%	503	84.0%	143	87.2%	1.03	0.31
<b>Bladder/bowel trouble</b>								
Yes	62	8.1%	53	8.8%	9	5.5%		
No	701	91.9%	546	91.2%	155	94.5%	1.95	0.16
<b>Mood or nerve problem</b>								
Yes	204	26.7%	163	27.2%	41	25.0%		
No	559	73.3%	436	72.8%	123	75.0%	0.32	0.57

Variables	Total Sample (N=763)		Completed 4 Yr F/U (N=599)		Lost at 4 Yr F/U (N=164)		Test Statistics	
	N	%	N	%	N	%	$\chi^2$	p-value
<b>Sleep problem</b>								
Yes	100	13.1%	80	13.4%	20	12.2%		
No	663	86.9%	519	86.6%	144	87.8%	0.15	0.70
<b>Mental Health Disorders</b>								
<b>Dysthymia</b>								
No	664	87.0%	521	87.0%	143	87.2%		
Yes	99	13.0%	78	13.0%	21	12.8%		
Total	763	100.0%	599	100.0%	164	100.0%	0.01	0.94
<b>Major depression</b>								
No	435	57.0%	336	56.1%	99	60.4%		
Yes	328	43.0%	263	43.9%	65	39.6%		
Total	763	100.0%	599	100.0%	164	100.0%	0.96	0.33
<b>Generalized anxiety disorder</b>								
No	685	89.8%	531	88.6%	154	93.9%		
Yes	78	10.2%	68	11.4%	10	6.1%		
Total	763	100.0%	599	100.0%	164	100.0%	3.87	0.05
<b>Simple phobia disorder</b>								
No	489	64.1%	394	65.8%	95	57.9%		
Yes	274	35.9%	205	34.2%	69	42.1%		
Total	763	100.0%	599	100.0%	164	100.0%	3.45	0.06
<b>Social phobia disorder</b>								
No	626	82.0%	484	80.8%	142	86.6%		
Yes	137	18.0%	115	19.2%	22	13.4%		
Total	763	100.0%	599	100.0%	164	100.0%	2.92	0.09
<b>Agoraphobia disorder</b>								
No	694	91.0%	548	91.5%	146	89.0%		
Yes	69	9.0%	51	8.5%	18	11.0%		
Total	763	100.0%	599	100.0%	164	100.0%	0.95	0.33
<b>Panic disorder</b>								
No	638	83.6%	503	84.0%	135	82.3%		
Yes	125	16.4%	96	16.0%	29	17.7%		
Total	763	100.0%	599	100.0%	164	100.0%	0.26	0.61
<b>Alcohol disorder</b>								
No	730	95.7%	574	95.8%	156	95.1%		
Yes	33	4.3%	25	4.2%	8	4.9%		
Total	763	100.0%	599	100.0%	164	100.0%	0.15	0.69
<b>Drug disorder</b>								
No	738	96.7%	581	97.0%	157	95.7%		
Yes	25	3.3%	18	3.0%	7	4.3%		
Total	763	100.0%	599	100.0%	164	100.0%	0.65	0.42

**Table 3**

**Representativeness of Respondents in the 4 Year Follow-up:  
Study Parents Compared to Those Lost on Services Needed At Baseline**

Variables	Total Sample (N=763)		Completed 4 Yr F/U (N=599)		Lost at 4 Yr F/U (N=164)		Test Statistics	
	N	%	N	%	N	%	$\chi^2$	p-value
<b>What services would help you and your family right now?</b>								
Job training								
Yes	481	63.0%	381	63.6%	100	61.0%	0.38	0.54
No	282	37.0%	218	36.4%	64	39.0%		
Child care								
Yes	471	61.7%	367	61.3%	104	63.4%	0.25	0.62
No	292	38.3%	232	38.7%	60	36.6%		
Counselling for yourself or family								
Yes	359	47.1%	288	48.1%	71	43.3%	1.18	0.28
No	404	52.9%	311	51.9%	93	56.7%		
Drug/alcohol treatment								
Yes	33	4.3%	27	4.5%	6	3.7%	0.22	0.64
No	730	95.7%	572	95.5%	158	96.3%		
Parenting skills development								
Yes	238	31.2%	192	32.1%	46	28.0%	0.96	0.33
No	525	68.8%	407	67.9%	118	72.0%		
Family violence prevention								
Yes	74	9.7%	60	10.0%	14	8.5%	0.32	0.57
No	689	90.3%	539	90.0%	150	91.5%		
Services which help care for elderly								
Yes	39	5.1%	31	5.2%	8	4.9%	0.02	0.88
No	724	94.9%	568	94.8%	156	95.1%		
Immigration								
Yes	17	2.2%	13	2.2%	4	2.4%	0.04	0.84
No	746	97.8%	586	97.8%	160	97.6%		
Translator								
Yes	15	2.0%	9	1.5%	6	3.7%	3.11	0.08
No	748	98.0%	590	98.5%	158	96.3%		
Transportation								
Yes	313	41.0%	242	40.4%	71	43.3%	0.45	0.50
No	450	59.0%	357	59.6%	93	56.7%		
Housing								
Yes	385	50.5%	301	50.3%	84	51.2%	0.05	0.83
No	378	49.5%	298	49.7%	80	48.8%		
Food banks								
Yes	228	29.9%	176	29.4%	52	31.7%		

Variables	Total Sample (N=763)		Completed 4 Yr F/U (N=599)		Lost at 4 Yr F/U (N=164)		Test Statistics	
	N	%	N	%	N	%	$\chi^2$	p-value
No	535	70.1%	423	70.6%	112	68.3%	0.33	0.56
Credit counselling								
Yes	143	18.7%	111	18.5%	32	19.5%		
No	620	81.3%	488	81.5%	132	80.5%	0.08	0.78
Education/literacy								
Yes	359	47.1%	284	47.4%	75	45.7%		
No	404	52.9%	315	52.6%	89	54.3%	0.15	0.70
Support group								
Yes	284	37.2%	231	38.6%	53	32.3%		
No	479	62.8%	368	61.4%	111	67.7%	2.15	0.14
Recreation								
Yes	602	78.9%	472	78.8%	130	79.3%		
No	161	21.1%	127	21.2%	34	20.7%	0.02	0.90
Health services								
Yes	332	43.5%	259	43.2%	73	44.5%		
No	431	56.5%	340	56.8%	91	55.5%	0.08	0.77
Other services								
Yes	41	5.4%	37	6.2%	4	2.4%		
No	722	94.6%	562	93.8%	160	97.6%	3.54	0.06

Table 4a

Representativeness of Respondents in the 4 Year Follow-up:  
Study Parents Compared to Those Lost on Social Demographics

Variables	Total		Completed 4 Yr F/U		Lost at 4 Yr F/U		Test-Statistics		
	N	%	N	%	N	%	$\chi^2$	df	p-value
Have You Been on Social Assistance Ever Before									
Yes	424	55.6%	323	53.9%	101	61.6%			
No	339	44.4%	276	46.1%	63	38.4%			
Total	763	100.0%	599	100.0%	164	100.0%	3.06	1	0.08
Previous Times on Social Assistance									
One	281	66.3%	216	66.9%	65	64.4%			
Two	104	24.5%	79	24.5%	25	24.8%			
Three	27	6.4%	20	6.2%	7	6.9%			
Four or More	12	2.8%	8	2.5%	4	4.0%			
Total	424	100.0%	323	100.0%	101	100.0%	0.74	3	0.86
Years Since First on Social Assistance									
<1	21	5.0%	18	5.6%	3	3.0%			
<3	102	24.2%	78	24.2%	24	24.2%			
<5	99	23.5%	75	23.3%	24	24.2%			
<7	51	12.1%	37	11.5%	14	14.1%			
<9	43	10.2%	34	10.6%	9	9.1%			
<11	31	7.4%	20	6.2%	11	11.1%			
11 or More	74	17.6%	60	18.6%	14	14.1%			
Total	421	100.0%	322	100.0%	99	100.0%	4.96	6	0.55
Education Category									
Less Than Grade 12	255	33.5%	185	30.9%	70	42.7%			
Grade 12 or More	507	66.5%	413	69.1%	94	57.3%	7.98	1	<.01

Took Course in Last 12 Months Yes No	250 513	32.8% 67.2%	194 405	32.4% 67.6%	56 108	34.1% 65.9%	0.18	1	0.67
Took High School Course Yes No	80 683	10.5% 89.5%	54 545	9.0% 91.0%	26 138	15.9% 84.1%	6.42	1	0.01
Completed High School Program Yes No	14 749	1.8% 98.2%	12 587	2.0% 98.0%	2 162	1.2% 98.8%	0.44	1	0.51
Took College Course Yes No	63 700	8.3% 91.7%	56 543	9.3% 90.7%	7 157	4.3% 95.7%	4.39	1	0.04

Table 4a (Cont=d)

Representativeness of Respondents in the 4 Year Follow-up:  
Social Demographics of Study Parents Compared to Those Lost

Variables	Total			In Study			Lost			Test-Statistics		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	T	df	p-value
Age of Respondent	763	31.9	8.2	599	32.1	8.2	164	31.1	8.4	1.47	761	0.14
Age of First Child	763	8.3	6.9	599	8.3	6.9	164	8.4	6.7	-0.08	761	0.94
Number of Children	763	1.9	1.0	599	1.9	1.0	164	1.9	1.0	-0.27	761	0.79
Education in Years	762	12.3	2.3	598	12.4	2.3	164	12.0	2.4	1.97	760	0.05
Number of Months Previously on Social Assistance	763	16.31	28.36	599	14.91	26.17	164	21.43	34.83	-2.62	761	0.01
Total Cost of Prior Social Assistance	763	18073.29	33196.26	599	16178.43	28668.33	164	24994.13	45552.61	-3.03	761	0.00
										U 44370.0	Z -1.91	2tailed P 0.06*
How Many Times Before	424	1.55	2.02	323	1.56	2.27	101	1.51	0.83	0.21	422	0.83
Years Since First on Social Assistance	421	6.52	5.34	322	6.62	5.61	99	6.20	4.35	0.68	419	0.50
Monthly Income Maintenance	763	1070.81	149.20	599	1070.18	148.20	164	1073.12	153.22	-0.22	761	0.82
										U 48919.5	Z -0.08	2tailed P 0.93*

\* Costs assume unchanged family configuration

Table 4b

**Representativeness of Respondents in the 4 Year Follow-up:  
Study Parents Compared to Those Lost on Coping Style and Social Adjustment**

Variables	Total			In Study			Lost			Test-Statistics		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	T	df	p-value
<b>Coping Styles (Moos &amp; Billing)</b>												
Cognitive Coping (0-33)	762	20.4	5.3	598	20.4	5.3	164	20.4	5.4	0.12	760	0.91
Behavioural Coping (0-39)	762	22.3	6.1	598	22.5	6.0	164	21.4	6.4	1.96	760	0.05
Avoidance Coping (0-24)	762	6.6	3.8	598	6.6	3.8	164	6.6	3.7	0.02	760	0.99
Logical Analysis (0-12)	762	7.8	2.5	598	7.8	2.5	164	7.6	2.5	0.88	760	0.38
Information Seeking (0-21)	762	11.8	4.1	598	12.0	4.1	164	11.1	4.1	2.43	760	0.02
Problem Solving (0-15)	762	9.7	2.9	598	9.7	2.8	164	9.5	3.1	0.79	760	0.43
Affective Regulation (0-18)	762	9.9	3.3	598	9.9	3.4	164	10.0	3.2	-0.36	760	0.72
Emotional Discharge (0-18)	762	5.2	2.8	598	5.3	2.7	164	5.0	2.8	1.28	760	0.20
<b>Weissman Social Adjustment Scale</b>												
Work 1-5 (worst)	759	1.7	0.5	596	1.7	0.5	163	1.7	0.5	0.51	757	0.61
Social & Leisure 1-5 (worst)	760	2.4	0.6	597	2.4	0.6	163	2.5	0.6	-1.26	758	0.21
Extended family 1-5 (worst)	763	1.6	0.5	599	1.7	0.5	164	1.6	0.5	0.90	761	0.37
Marital 1-5 (worst)	9	2.0	0.3	5	2.1	0.4	4	1.8	0.2	1.61	7	0.15
Parental 1-5 (worst)	760	1.4	0.4	596	1.4	0.4	164	1.4	0.4	0.31	758	0.76
Family Unit 1-5 (worst)	758	1.9	0.8	594	1.9	0.8	164	1.8	0.8	0.74	756	0.46
Economic 1-5 (worst)	762	2.7	1.4	598	2.7	1.4	164	2.8	1.4	-0.91	760	0.36
Social Adjustment Scale Subscales Total 1-5 (worst)	762	2.0	0.4	598	2.0	0.4	164	2.0	0.4	-0.18	760	0.86
Social Adjustment Scale Item Total 1-5 (worst)	763	1.9	0.4	599	1.9	0.4	164	2.0	0.4	-0.37	761	0.72

**Table 5**

**Representativeness of Parent Respondents in the 4 Year Follow-up:  
Annual Expenditures for Health and Social Services at Baseline of Study Parents Compared to Those Lost**

	Total			In Study			Lost At 4 Yr F/U			Test-Statistics			
	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	T-test	P-value	Mann-Whitney U	P-value
Family Physician/Walk-in Clinic	763	203.78	290.55	599	199.98	298.83	164	217.68	258.42	-0.69	0.49	46557.0	0.30
Physician Specialist	763	259.70	636.97	599	272.74	685.72	164	212.09	410.79	1.08	0.28	48432.5	0.76
Emergency Room	763	97.64	263.24	599	96.73	280.40	164	100.95	188.37	-0.18	0.86	45270.0	0.05
Physiotherapist	763	89.13	422.31	599	82.51	392.95	164	113.30	516.22	-0.83	0.41	48227.5	0.47
Psychiatrist	763	66.56	351.47	599	71.40	381.60	164	48.85	207.02	0.73	0.47	48836.5	0.82
Psychologist	763	167.38	998.60	599	207.15	1120.02	164	22.13	180.49	2.11	0.04	46840.0	0.03
Occupational Therapist	763	15.62	194.02	599	14.56	201.32	164	19.51	165.10	-0.29	0.77	48952.0	0.76
Social Worker	763	141.00	354.27	599	138.30	351.80	164	150.87	364.08	-0.40	0.69	47397.5	0.46
Family Counsellor	763	115.95	494.17	599	132.28	541.71	164	56.34	245.89	1.75	0.08	45761.5	0.03
Children=s Aid	763	34.98	185.85	599	33.30	167.50	164	41.11	241.84	-0.48	0.63	49041.5	0.95
Adolescence/School Counsellor	763	48.47	341.68	599	35.51	204.96	164	95.80	623.53	-2.01	0.05	48695.0	0.74
Probationary Services	763	12.92	102.10	599	11.52	96.26	164	18.04	121.27	-0.72	0.47	48841.0	0.69
Child Care/Day Care Services	763	26.28	611.76	599	33.48	690.40	164	.00	.00	0.62	0.54	48462.0	0.14
Subsidized Day Care Services	763	124.91	987.91	599	151.16	1103.65	164	29.02	286.46	1.40	0.16	47522.0	0.09
Nutritionist	763	3.06	46.38	599	3.52	52.02	164	1.40	11.25	0.52	0.61	48819.5	0.71
Naturopath/Homeopath	763	9.16	73.91	599	10.89	82.83	164	2.86	17.78	1.23	0.22	48793.0	0.68
Public Health Nurse	763	21.00	206.07	599	25.14	232.06	164	5.91	25.76	1.06	0.29	48881.0	0.84

	Total			In Study			Lost At 4 Yr F/U			Test-Statistics			
	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	T-test	P-value	Mann-Whitney U	P-value
VON Nurse	763	9.43	109.57	599	9.71	117.16	164	8.41	75.94	0.13	0.89	48957.0	0.77
St. Elizabeth=s Visiting Nurses	763	5.23	75.25	599	5.97	84.10	164	2.50	22.66	0.52	0.60	49062.5	0.91
Chiropractor	763	47.19	238.34	599	49.17	243.01	164	39.97	221.01	0.44	0.66	48681.5	0.73
Home Care Worker	763	33.03	310.64	599	37.47	344.00	164	16.80	128.99	0.75	0.45	48785.5	0.61
Meals on Wheels	763	0.12	2.87	599	0.13	3.20	164	0.07	0.92	0.23	0.82	48901.0	0.33
Employment Retraining Services	763	92.64	697.56	599	94.33	695.15	164	86.45	708.39	0.13	0.90	48199.0	0.36
Recreation Services	763	24.21	76.22	599	27.31	80.44	164	12.87	57.01	2.15	0.03	46430.0	0.03
Other Health Practitioner	763	49.96	274.18	599	54.25	299.30	164	34.32	149.91	0.82	0.41	48687.5	0.82
911 Service	763	40.58	149.88	599	41.27	152.45	164	38.05	140.52	0.24	0.81	48197.0	0.49
Ambulance Service	763	18.24	72.53	599	17.23	69.34	164	21.95	83.28	-0.74	0.46	48613.0	0.64
Laboratory Cost	763	6.05	10.41	599	5.84	10.15	164	6.82	11.30	-1.07	0.29	45012.0	0.10
Medication Cost	763	454.04	1253.98	599	442.88	1085.21	164	494.80	1740.21	-0.47	0.64	47896.5	0.60
Supplies and Devices Cost	763	26.86	236.93	599	34.22	266.98	164	.00	.00	1.64	0.10	44854.0	<.01
Household Help Cost	763	51.35	553.41	599	57.60	614.49	164	28.54	213.98	0.60	0.55	48566.5	0.56
Babysitting Cost	763	77.28	970.83	599	85.94	1086.88	164	45.66	266.38	0.47	0.64	48991.5	0.90
Travel Cost	763	107.85	510.71	599	125.27	572.60	164	44.23	106.18	1.80	0.07	48060.5	0.58
Parking Costs	763	35.23	575.84	599	43.23	649.53	164	6.02	35.81	0.73	0.46	48402.0	0.50
Out of Pocket Expenses	763	480.90	1349.30	599	477.10	1222.46	164	494.80	1740.21	-0.15	0.88	48868.0	0.91
Direct Costs, without Hospital	763	2245.14	3347.95	599	2339.95	3491.53	164	1898.87	2742.46	1.50	0.14	47681.0	0.57
Hospital	763	1895.72	7773.58	599	1784.58	7042.70	164	2301.63	10015.82	-0.75	0.45	46835.5	0.21

	Total			In Study			Lost At 4 Yr F/U			Test-Statistics			
	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	T-test	P-value	Mann-Whitney U	P-value
Direct Costs, with Hospital	763	4140.86	9237.09	599	4124.53	8582.17	164	4200.51	11342.70	-0.09	0.93	48587.5	0.83
Nat Log Trans. Direct, No Hospital	763	6.85	1.51	599	6.87	1.51	164	6.76	1.52	0.87	0.39	47681.0	0.57
Nat Log Trans. Direct, with Hospital	763	7.20	1.70	599	7.20	1.70	164	7.20	1.72	-0.01	0.99	48587.5	0.83
Lost Wages Due to Health	763	108.06	1055.18	599	102.05	1052.32	164	130.00	1068.52	-0.30	0.76	48767.0	0.60
Lost Wages for Health Care Visits	763	112.89	1354.32	599	128.00	1517.96	164	57.71	342.24	0.59	0.56	47768.5	0.11
Indirect Expenditures (Lost Wages), Total	763	220.95	1714.69	599	230.05	1845.11	164	187.71	1119.58	0.28	0.78	47553.5	0.13
Total (Direct + Indirect) Expenditures	763	4361.81	9394.68	599	4354.58	8778.54	164	4388.21	11396.51	-0.04	0.97	48239.5	0.73
Workers Compensation	763	36.87	387.25	599	28.53	303.43	164	67.30	601.74	-1.14	0.26	48951.0	0.76
Old Age Security	763	.00	.00	599	.00	.00	164	.00	.00				
Disability Pension, Private	763	15.18	216.21	599	15.66	226.99	164	13.41	171.79	0.12	0.91	49066.0	0.87
Canada Pension	763	5.20	114.06	599	6.62	128.71	164	.00	.00	0.66	0.51	48954.0	0.46
Canada Pension, Disability	763	28.24	361.89	599	29.78	379.50	164	22.61	289.55	0.22	0.82	49007.0	0.77
Guarenteed Annual Income Supplements	763	1.52	31.90	599	0.58	14.22	164	4.94	63.25	-1.55	0.12	48900.0	0.33
Veterans Benefits	763	1.45	28.49	599	1.85	32.15	164	.00	.00	0.74	0.46	48954.0	0.46
Baby Bonus	763	754.40	651.32	599	748.96	614.30	164	774.27	773.44	-0.44	0.66	48624.0	0.84
Survivors Benefits	763	21.14	243.82	599	16.46	177.10	164	38.21	403.08	-1.01	0.31	49008.0	0.80
Unemployment Insurance	763	282.61	1059.00	599	274.28	1040.94	164	313.05	1125.30	-0.42	0.68	48539.0	0.65
Family Benefits	763	1734.94	2876.25	599	1862.08	2936.98	164	1270.56	2598.50	2.34	0.02	44127.5	0.02
General Welfare Assistance	763	2339.88	3020.67	599	2182.92	3075.53	164	2913.20	2744.47	-2.76	<.01	39956.0	<.01

	Total			In Study			Lost At 4 Yr F/U			Test-Statistics			
	N	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	T-test	P-value	Mann-Whitney U	P-value
Other Income	763	122.26	332.53	599	120.88	311.12	164	127.29	402.22	-0.22	0.83	47199.0	0.38
Private Insurance Income	763	13.07	176.04	599	13.62	184.37	164	11.09	141.96	0.16	0.87	49007.0	0.77
Cash Transfer Effect	763	5386.04	3562.43	599	5339.52	3698.24	164	5555.93	3019.01	-0.69	0.49	46184.5	0.24

**Table 6**

**Retention of Children in the 4 Year Follow-up**

	Total		Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self Directed	
	N	%	N	%	N	%	N	%	N	%	N	%
<b>The Number of Children and Youth by Study Group in Analysis with Those Not in Analysis at Time 1 For Any Reason</b>												
In Analysis	1155	80.4%	231	78.8%	251	77.5%	208	80.6%	249	86.5%	216	78.8%
Not in Analysis	282	19.6%	62	21.2%	73	22.5%	50	19.4%	39	13.5%	58	21.2%
Total	1437	100.0%	293	20.4%	324	22.5%	258	18.0%	288	20.0%	274	19.1%
<b>The Number of Children and Youth by Group Missing or Wrong Questionnaire</b>												
Not Missing	1367	95.1%	275	93.9%	315	97.2%	240	93.0%	276	95.8%	261	95.3%
Missing	70	4.9%	18	6.1%	9	2.8%	18	7.0%	12	4.2%	13	4.7%
Total	1437	100.0%	293	20.4%	324	22.5%	258	18.0%	288	20.0%	274	19.1%
<b>The Number of Children and Youth by Group Not Living With Parent</b>												
With Parent	1379	96.0%	285	97.3%	310	95.7%	253	98.1%	276	95.8%	255	93.1%
Not With Parent	58	4.0%	8	2.7%	14	4.3%	5	1.9%	12	4.2%	19	6.9%
Total	1437	100.0%	293	20.4%	324	22.5%	258	18.0%	288	20.0%	274	19.1%
<b>The Number of Children and Youth by Group ≥ 17 Years</b>												
Within Age Range	1283	89.3%	257	87.7%	274	84.6%	231	89.5%	273	94.8%	248	90.5%
≥ 17 Years	154	10.7%	36	12.3%	50	15.4%	27	10.5%	15	5.2%	26	9.5%
Total	1437	100.0%	293	20.4%	324	22.5%	258	18.0%	288	20.0%	274	19.1%

$X^2(4)=9.35, p=.05$

$X^2(4)=6.87, p=.14$

$X^2(4)=10.25, p=.04$

$X^2(4)=17.87, p=.001$

	Total	Completed 4Yr F/U N=908	Lost to Follow-up N=242	Test-Statistics
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Table 7

Representativeness: Annual Per Child/Youth Per Year Practitioner Expenditures by Group at Baseline

	Mean	S.D.	Mean	S.D.	Mean	S.D.	T-test	P-value	Mann-Whitney U	P-value
Family Physician/Walk-in Clinic	112.07	141.48	115.34	146.88	99.79	118.53	1.52	0.13	100966.5	0.05
Physician Specialist	124.83	485.92	145.56	539.53	47.04	149.95	2.81	0.01	94972.0	0.00
Emergency Room	101.49	237.80	102.65	225.57	97.14	279.45	0.32	0.75	105025.0	0.20
Physiotherapist	6.04	67.12	7.65	75.46	0.00	0.00	1.58	0.12	107085.0	0.01
Psychiatrist	5.92	81.75	7.30	91.85	0.75	8.64	1.11	0.27	108709.5	0.25
Psychologist	45.48	354.16	42.16	262.11	57.95	582.46	-0.62	0.54	106714.5	0.06
Occupational Therapist	3.69	45.19	4.67	50.81	0.00	0.00	1.43	0.15	108416.0	0.07
Social Worker	15.11	87.75	17.22	96.63	7.18	38.62	1.58	0.11	108695.5	0.55
Family Counsellor	54.84	331.18	57.50	329.59	44.86	337.60	0.53	0.60	108480.0	0.49
Children's Aid	35.66	302.33	29.93	278.79	57.15	377.74	-1.24	0.21	108863.0	0.63
Adolescence/School Counsellor	61.66	391.45	56.73	346.34	80.15	527.92	-0.83	0.41	108771.5	0.64
Probationary Services	7.37	115.84	6.52	104.06	10.59	152.34	-0.49	0.63	109414.5	0.65
Child Care/Day Care Services	175.09	981.61	170.18	955.07	193.51	1077.30	-0.33	0.74	108586.5	0.49
Subsidized Day Care Services	452.53	1637.73	445.98	1638.98	477.13	1636.20	-0.26	0.79	109426.0	0.86
Nutritionist	0.58	7.18	0.54	6.60	0.73	9.05	-0.37	0.72	109570.0	0.71
Naturopath/Homeopath	1.80	19.60	1.91	21.22	1.36	11.63	0.39	0.70	109271.0	0.49
Public Health Nurse	8.56	82.44	9.69	92.20	4.31	19.62	0.90	0.37	108108.5	0.32



Table 7

Representativeness: Annual Per Child/Youth Per Year Practitioner Expenditures by Group at Baseline

	Total		Completed 4Yr F/U N=908		Lost to Follow-up N=242		Test-Statistics			
	Mean	S.D.	Mean	S.D.	Mean	S.D.	T-test	P-value	Mann-Whitney U	P-value
Parking Costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00
Out of Pocket Expenses	110.85	434.09	125.18	455.66	57.06	336.56	2.17	0.03	98948.5	0.00
Direct Costs, without Hospital	1516.68	2461.55	1561.68	2477.92	1347.85	2396.64	1.20	0.23	95885.5	0.00
Hospital	775.07	5492.74	873.35	6057.92	406.33	2356.66	1.18	0.24	108564.0	0.56
Direct Costs, with Hospital	2291.75	6310.14	2435.02	6882.48	1754.18	3346.50	1.49	0.14	96456.0	0.00
Nat Log Trans. Direct, No Hospital	6.09	1.89	6.20	1.78	5.68	2.21	3.84	0.00	95885.5	0.00
Nat Log Trans. Direct, with Hospital	6.28	2.00	6.40	1.90	5.85	2.31	3.80	0.00	96456.0	0.00

**Table 8**

**Minnesota Infant 0 to 15 Months: Child Delay by Participant Status**

	Total		Completed 4Yr F/U		Lost to Follow-up		Test-Statistics		
	N	%	N	%	N	%	X <sup>2</sup>	df	Significance
Gross Motor Delay									
No	165	92.7%	130	92.9%	35	92.1%	Fisher's Exact Test: Two-Tail		1.00
Yes	13	7.3%	10	7.1%	3	7.9%			
Total	178	100.0%	140	100.0%	38	100.0%			
Fine Motor Delay									
No	173	97.2%	136	97.1%	37	97.4%	Fisher's Exact Test: Two-Tail		1.00
Yes	5	2.8%	4	2.9%	1	2.6%			
Total	178	100.0%	140	100.0%	38	100.0%			
Language Delay									
No	175	98.3%	138	98.6%	37	97.4%	Fisher's Exact Test: Two-Tail		0.52
Yes	3	1.7%	2	1.4%	1	2.6%			
Total	178	100.0%	140	100.0%	38	100.0%			
Comprehension Delay									
No	174	97.8%	136	97.1%	38	100.0%	Fisher's Exact Test: Two-Tail		0.58
Yes	4	2.2%	4	2.9%	0	0.0%			
Total	178	100.0%	140	100.0%	38	100.0%			
Social/Personal Delay									
No	171	96.1%	133	95.0%	38	100.0%	Fisher's Exact Test: Two-Tail		0.35
Yes	7	3.9%	7	5.0%	0	0.0%			
Total	178	100.0%	140	100.0%	38	100.0%			
Number of Areas Delayed									
0	154	86.5%	120	85.7%	34	89.5%			
1	18	10.1%	15	10.7%	3	7.9%			
2	4	2.2%	3	2.1%	1	2.6%			

	Total		Completed 4Yr F/U		Lost to Follow-up		Test-Statistics		
	N	%	N	%	N	%	X <sup>2</sup>	df	Significance
3	2	1.1%	2	1.4%	0	0.0%	not tested		
Total	178	100.0%	140	100.0%	38	100.0%			
Any Delay									
No	154	86.5%	120	85.7%	34	89.5%	0.36	1	0.55
Yes	24	13.5%	20	14.3%	4	10.5%			
Total	178	100.0%	140	100.0%	38	100.0%			

**Table 9**

**Minnesota 16 to 35 Months: Child Delay by Participant Status**

	Total		Completed 4Yr F/U		Lost to Follow-up		Test-Statistics		
	N	%	N	%	N	%	Value	df	Significance
Developmental Delay n/m/y									
No Delay	134	94.4%	100	93.5%	34	97.1%	Fisher's Exact Test: Two-Tail		0.68
Possible Major Delay	8	5.6%	7	6.5%	1	2.9%			
Total	142	100.0%	107	100.0%	35	100.0%			
Developmental Delay y/n									
No/possible delay	134	94.4%	100	93.5%	34	97.1%	Fisher's Exact Test: Two-Tail		0.68
Possible Major Delay	8	5.6%	7	6.5%	1	2.9%			
Total	142	100.0%	107	100.0%	35	100.0%			
Problems n/m/y									
No Problems	37	26.1%	28	26.2%	9	25.7%	1.23	2	0.54
Possible Problems	63	44.4%	45	42.1%	18	51.4%			
Possible Major Problems	42	29.6%	34	31.8%	8	22.9%			
Total	142	100.0%	107	100.0%	35	100.0%			
Problems y/n									
No/possible Problem	100	70.4%	73	68.2%	27	77.1%	1.01	1	0.32
Possible Major Problem	42	29.6%	34	31.8%	8	22.9%			
Total	142	100.0%	107	100.0%	35	100.0%			

Variables	Total			Completed 4Yr F/U			Lost to Follow-up			Test-Statistics		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	T-value	df	2-tail Signific
Problem Score	142	2.6	2.6	107	2.6	2.6	35	2.5	2.5	0.15	140	0.88

**Table 10**

**Minnesota 36 to 47 Months: Child Delay and Problems**

	Total		Completed 4Yr F/U		Lost to Follow-up		Test-Statistics			
	N	%	N	%	N	%	Value	df	Significance	
Developmental Delay n/y										
At or Above Expectations	76	98.7%	57	98.3%	19	100.0%	Fisher's Exact Test: Two-Tail			1.00
Below Expectations	1	1.3%	1	1.7%	0	0.0%				
Total	77	100.0%	58	100.0%	19	100.0%				
Problem Score Category										
No Problems	17	22.1%	15	25.9%	2	10.5%	2.83	2		0.24
1-2 Problem Items	23	29.9%	18	31.0%	5	26.3%				
3+ Items or 1+ Uncommon Items	37	48.1%	25	43.1%	12	63.2%				
Total	77	100.0%	58	100.0%	19	100.0%				
Problems (incl. 1-2 probs)										
No	17	22.1%	15	25.9%	2	10.5%	1.96	1		0.16
Yes	60	77.9%	43	74.1%	17	89.5%				
Total	77	100.0%	58	100.0%	19	100.0%				
Problems (3+ or uncommon)										
No	40	51.9%	33	56.9%	7	36.8%	2.31	1		0.13
Yes	37	48.1%	25	43.1%	12	63.2%				
Total	77	100.0%	58	100.0%	19	100.0%				

Variables	Total			Completed 4Yr F/U			Lost to Follow-up			Test-Statistics		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	T-value	df	2-tail Signific
Symptom/behaviour Problem Score 0-24	77	2.7	3.0	58	2.7	3.1	19	2.8	2.8	-0.19	75	0.85
Uncommon Behaviour Problems 0-10	77	0.5	1.0	58	0.6	1.1	19	0.5	0.6	0.30	75	0.76

Table 11a

Child Behaviour Checklist Age 4 to 16 Years: Child Disorder

	Total		Completed 4Yr F/U		Lost to Follow-up		Test-Statistics		
	N	%	N	%	N	%	Value	df	Significance
Conduct Disorder									
No	700	92.3%	559	92.2%	141	92.8%			
Yes	58	7.7%	47	7.8%	11	7.2%			
Total	758	100.0%	606	100.0%	152	100.0%	0.05	1	0.83
Hyperactive Disorder									
No	676	89.2%	538	88.8%	138	90.8%			
Yes	82	10.8%	68	11.2%	14	9.2%			
Total	758	100.0%	606	100.0%	152	100.0%	0.51	1	0.48
Emotional Disorder									
No	659	86.9%	520	85.8%	139	91.4%			
Yes	99	13.1%	86	14.2%	13	8.6%			
Total	758	100.0%	606	100.0%	152	100.0%	3.40	1	0.07
Some Disorder									
None	603	79.6%	475	78.4%	128	84.2%			
Some	155	20.4%	131	21.6%	24	15.8%			
Total	758	100.0%	606	100.0%	152	100.0%	2.54	1	0.11
Number of Disorders									
0	603	79.6%	475	78.4%	128	84.2%			
1	93	12.3%	78	12.9%	15	9.9%			
2	40	5.3%	36	5.9%	4	2.6%			
3	22	2.9%	17	2.8%	5	3.3%			
Total	758	100.0%	606	100.0%	152	100.0%	4.03	3	0.26
Number of Disorders (Collapsed)									
0	603	79.6%	475	78.4%	128	84.2%			
1	93	12.3%	78	12.9%	15	9.9%			
2+	62	8.2%	53	8.7%	9	5.9%			
Total	758	100.0%	606	100.0%	152	100.0%	2.60	2	0.27

**Table 11b**

**Child Behaviour Checklist Age 4 to 16 Years: Disorder (Ordinal Measures)**

Variables	Total			Completed 4Yr F/U			Lost to Follow-up			Test-Statistics		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	T-value	df	2-tail Signific
Conduct Disorder Score (0-30)	758	2.7	3.6	606	2.8	3.6	152	2.4	3.4	1.28	756	0.20
Hyperactivity Score (0-12)	758	3.7	3.2	606	3.8	3.2	152	3.4	3.1	1.26	756	0.21
Emotional Disorder Score (0-26)	758	4.6	4.3	606	4.8	4.3	152	3.6	3.9	3.08	756	0.00
Number of Disorders	758	0.3	0.7	606	0.3	0.7	152	0.3	0.7	1.28	756	0.20

Table 11c

## Child Behaviour Checklist: Disorder Profile

	Total		Completed 4Yr F/U		Lost to Follow-up	
	N	%	N	%	N	%
Child Disorder Profile						
No Disorder	603	79.6%	475	78.4%	128	84.2%
Emotional Disorder	49	6.5%	43	7.1%	6	3.9%
Hyperactive Disorder	29	3.8%	23	3.8%	6	3.9%
Hyperactive & Emotional Disorder	19	2.5%	18	3.0%	1	0.7%
Conduct Disorder	15	2.0%	12	2.0%	3	2.0%
Conduct & Emotional Disorder	9	1.2%	8	1.3%	1	0.7%
Conduct & Hyperactive Disorder	12	1.6%	10	1.7%	2	1.3%
Conduct, Hyperactive & Emotional Disorder	22	2.9%	17	2.8%	5	3.3%
Total	758	100.0%	606	100.0%	152	100.0%

Table 12

Comparison of Study Groups: Perceived Health Status and Use of Medication by Respondents in the 4 Year Follow-up

	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self-Directed		Test-Statistics			
	Count	%	Count	%	Count	%	Count	%	Count	%	Value	df	Signif	
<b>Physical Health</b>														
Baseline Perceived health														
Excellent	26	21.7%	25	21.4%	33	27.5%	27	22.0%	27	23.3%				
Very good	52	43.3%	45	38.5%	47	39.2%	48	39.0%	41	35.3%				
Good	25	20.8%	31	26.5%	28	23.3%	32	26.0%	32	27.6%				
Fair	11	9.2%	10	8.5%	6	5.0%	12	9.8%	14	12.1%				
Poor	6	5.0%	6	5.1%	6	5.0%	4	3.3%	2	1.7%				
Total	120	100.0%	117	100.0%	120	100.0%	123	100.0%	116	100.0%	9.87	16	0.87	
4 Year Follow-up Perceived health														
Excellent	17	14.0%	20	17.1%	22	18.2%	23	18.5%	21	18.1%				
Very good	37	30.6%	40	34.2%	42	34.7%	38	30.6%	37	31.9%				
Good	47	38.8%	39	33.3%	33	27.3%	45	36.3%	38	32.8%				
Fair	10	8.3%	11	9.4%	12	9.9%	9	7.3%	16	13.8%				
Poor	10	8.3%	7	6.0%	12	9.9%	9	7.3%	4	3.4%				
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	11.29	16	0.79	
Baseline - 4 Year F/U Change in perceived health														
Same	38	31.7%	45	38.5%	52	43.3%	47	38.2%	50	43.1%				
Better	47	39.2%	39	33.3%	49	40.8%	43	35.0%	39	33.6%				
Worse	35	29.2%	33	28.2%	19	15.8%	33	26.8%	27	23.3%				
Total	120	100.0%	117	100.0%	120	100.0%	123	100.0%	116	100.0%	9.98	8	0.27	
<b>Worried About Health in Past</b>														

	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self-Directed		Test-Statistics		
	Count	%	Count	%	Count	%	Count	%	Count	%	Value	df	Signif
Baseline Worry													
Hardly ever	74	62.2%	62	53.0%	74	62.2%	69	56.6%	70	60.3%			
Less than half time	18	15.1%	22	18.8%	25	21.0%	30	24.6%	30	25.9%			
Half-most	27	22.7%	33	28.2%	20	16.8%	23	18.9%	16	13.8%			
Total	119	100.0%	117	100.0%	119	100.0%	122	100.0%	116	100.0%	12.81	8	0.12
Baseline Pain													
None	60	51.3%	54	46.6%	75	64.1%	73	59.8%	60	53.1%			
Non-Limiting	26	22.2%	21	18.1%	12	10.3%	19	15.6%	19	16.8%			
Limiting	31	26.5%	41	35.3%	30	25.6%	30	24.6%	34	30.1%			
Total	117	100.0%	116	100.0%	117	100.0%	122	100.0%	113	100.0%	12.63	8	0.13



	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self-Directed		Test-Statistics		
	Count	%	Count	%	Count	%	Count	%	Count	%	Value	df	Signif
Yes	21	17.4%	21	17.9%	16	13.2%	18	14.5%	20	17.2%	1.52	4	0.82
No	100	82.6%	96	82.1%	105	86.8%	106	85.5%	96	82.8%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%			
Medications for bladder/bowel											9.38	4	0.05
Yes	12	9.9%	18	15.4%	9	7.4%	7	5.6%	7	6.0%			
No	109	90.1%	99	84.6%	112	92.6%	117	94.4%	109	94.0%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%			
Medications for mood or nerves											3.43	4	0.49
Yes	39	32.2%	30	25.6%	27	22.3%	33	26.6%	34	29.3%			
No	82	67.8%	87	74.4%	94	77.7%	91	73.4%	82	70.7%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%			
Medications for sleep											5.48	4	0.24
Yes	15	12.4%	23	19.7%	16	13.2%	14	11.3%	12	10.3%			
No	106	87.6%	94	80.3%	105	86.8%	110	88.7%	104	89.7%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%			

**Table 14**

**Comparison of Study Groups: Prevalence of Nine Psychiatric Axis I Disorders at Baseline by Groups of Respondents in the 4 Year Follow-up**

	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self Directed		Test-Statistics		
	N	%	N	%	N	%	N	%	N	%	Value	df	Signif
Dysthymia													
No	109	90.1%	100	85.5%	104	86.0%	106	85.5%	102	87.9%			
Yes	12	9.9%	17	14.5%	17	14.0%	18	14.5%	14	12.1%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	1.71	4	0.79
Major depression													
No	64	52.9%	72	61.5%	67	55.4%	64	51.6%	69	59.5%			
Yes	57	47.1%	45	38.5%	54	44.6%	60	48.4%	47	40.5%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	3.49	4	0.48
Generalized anxiety disorder													
No	106	87.6%	104	88.9%	107	88.4%	105	84.7%	109	94.0%			
Yes	15	12.4%	13	11.1%	14	11.6%	19	15.3%	7	6.0%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	5.35	4	0.25
Simple phobia													
No	85	70.2%	75	64.1%	81	66.9%	76	61.3%	77	66.4%			
Yes	36	29.8%	42	35.9%	40	33.1%	48	38.7%	39	33.6%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	2.42	4	0.66
Social phobia													
No	98	81.0%	89	76.1%	97	80.2%	101	81.5%	99	85.3%			
Yes	23	19.0%	28	23.9%	24	19.8%	23	18.5%	17	14.7%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	3.30	4	0.51
Agoraphobia													
No	112	92.6%	109	93.2%	109	90.1%	112	90.3%	106	91.4%			
Yes	9	7.4%	8	6.8%	12	9.9%	12	9.7%	10	8.6%			

	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self Directed		Test-Statistics		
	N	%	N	%	N	%	N	%	N	%	Value	df	Signif
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	1.13	4	0.89
Panic attack													
No	98	81.0%	96	82.1%	106	87.6%	99	79.8%	104	89.7%			
Yes	23	19.0%	21	17.9%	15	12.4%	25	20.2%	12	10.3%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	6.66	4	0.15
Alcohol dependence													
No	115	95.0%	115	98.3%	116	95.9%	118	95.2%	110	94.8%			
Yes	6	5.0%	2	1.7%	5	4.1%	6	4.8%	6	5.2%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	2.39	4	0.66
Drug dependence													
No	115	95.0%	111	94.9%	121	100.0%	119	96.0%	115	99.1%			
Yes	6	5.0%	6	5.1%			5	4.0%	1	0.9%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	9.42	4	0.05

Table 15

Comparison of Study Groups: Education/Employment Plans for Next Year and Baseline Plans and Needs for Services

	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self Directed		Test-Statistics			
	N	%	N	%	N	%	N	%	N	%	Value	df	Signif	
<b>Baseline Plans</b>														
<b>Enroll in course</b>														
Yes	64	52.9%	68	58.1%	57	47.1%	74	59.7%	69	59.5%				
No	57	47.1%	49	41.9%	64	52.9%	50	40.3%	47	40.5%				
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	5.73	4	0.22	
<b>Complete a course</b>														
Yes	40	33.1%	44	37.6%	42	34.7%	47	37.9%	44	37.9%				
No	81	66.9%	73	62.4%	79	65.3%	77	62.1%	72	62.1%				
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	1.04	4	0.90	
<b>Find full time work</b>														
Yes	49	40.5%	38	32.5%	51	42.1%	48	38.7%	41	35.3%				
No	72	59.5%	79	67.5%	70	57.9%	76	61.3%	75	64.7%				
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	3.09	4	0.54	
<b>Find part time work</b>														
Yes	56	46.3%	49	41.9%	53	43.8%	43	34.7%	46	39.7%				
No	65	53.7%	68	58.1%	68	56.2%	81	65.3%	70	60.3%				
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	3.94	4	0.41	
<b>Services Wanted at Baseline</b>														
<b>Job training</b>														
Yes	71	58.7%	77	65.8%	80	66.1%	83	66.9%	70	60.3%				
No	50	41.3%	40	34.2%	41	33.9%	41	33.1%	46	39.7%				
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	2.97	4	0.56	
<b>Child care</b>														
Yes	67	55.4%	74	63.2%	71	58.7%	83	66.9%	72	62.1%				
No	54	44.6%	43	36.8%	50	41.3%	41	33.1%	44	37.9%				
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	4.02	4	0.40	

	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self Directed		Test-Statistics		
	N	%	N	%	N	%	N	%	N	%	Value	df	Signif
<b>Counselling</b>													
Yes	63	52.1%	63	53.8%	45	37.2%	66	53.2%	51	44.0%			
No	58	47.9%	54	46.2%	76	62.8%	58	46.8%	65	56.0%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	10.18	4	0.04
<b>Drug and alcohol treatment</b>													
Yes	3	2.5%	7	6.0%	2	1.7%	6	4.8%	9	7.8%			
No	118	97.5%	110	94.0%	119	98.3%	118	95.2%	107	92.2%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	6.92	4	0.14
<b>Parenting skills development</b>													
Yes	36	29.8%	47	40.2%	30	24.8%	48	38.7%	31	26.7%			
No	85	70.2%	70	59.8%	91	75.2%	76	61.3%	85	73.3%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	10.80	4	0.03
<b>Family violence prevention</b>													
Yes	9	7.4%	12	10.3%	10	8.3%	17	13.7%	12	10.3%			
No	112	92.6%	105	89.7%	111	91.7%	107	86.3%	104	89.7%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	3.20	4	0.52
<b>Services which help care for elderly</b>													
Yes	7	5.8%	5	4.3%	6	5.0%	7	5.6%	6	5.2%			
No	114	94.2%	112	95.7%	115	95.0%	117	94.4%	110	94.8%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	0.35	4	0.99
<b>Immigration services</b>													
Yes	3	2.5%	1	0.9%	3	2.5%	5	4.0%	1	0.9%			
No	118	97.5%	116	99.1%	118	97.5%	119	96.0%	115	99.1%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	4.02	4	0.40
<b>Translation services</b>													
Yes	0	0%	1	0.9%	0	0%	4	3.2%	4	3.4%			
No	121	100.0%	116	99.1%	121	100.0%	120	96.8%	112	96.6%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	9.48	4	0.05

	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self Directed		Test-Statistics		
	N	%	N	%	N	%	N	%	N	%	Value	df	Signif
<b>Transportation services</b>													
Yes	44	36.4%	61	52.1%	45	37.2%	48	38.7%	44	37.9%			
No	77	63.6%	56	47.9%	76	62.8%	76	61.3%	72	62.1%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	8.47	4	0.08
<b>Housing</b>													
Yes	60	49.6%	58	49.6%	58	47.9%	74	59.7%	51	44.0%			
No	61	50.4%	59	50.4%	63	52.1%	50	40.3%	65	56.0%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	6.54	4	0.16
<b>Foodbanks</b>													
Yes	42	34.7%	40	34.2%	31	25.6%	35	28.2%	28	24.1%			
No	79	65.3%	77	65.8%	90	74.4%	89	71.8%	88	75.9%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	5.40	4	0.25
<b>Credit counselling</b>													
Yes	25	20.7%	21	17.9%	21	17.4%	21	16.9%	23	19.8%			
No	96	79.3%	96	82.1%	100	82.6%	103	83.1%	93	80.2%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	0.84	4	0.93
<b>Education/literacy/training</b>													
Yes	61	50.4%	59	50.4%	47	38.8%	62	50.0%	55	47.4%			
No	60	49.6%	58	49.6%	74	61.2%	62	50.0%	61	52.6%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	4.76	4	0.31
<b>Support group</b>													
Yes	49	40.5%	61	52.1%	35	28.9%	51	41.1%	35	30.2%			
No	72	59.5%	56	47.9%	86	71.1%	73	58.9%	81	69.8%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	17.82	4	<.01
<b>Recreation services</b>													
Yes	93	76.9%	96	82.1%	95	78.5%	98	79.0%	90	77.6%			
No	28	23.1%	21	17.9%	26	21.5%	26	21.0%	26	22.4%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	1.13	4	0.89
<b>Health services</b>													
Yes	51	42.1%	57	48.7%	49	40.5%	54	43.5%	48	41.4%			
No	70	57.9%	60	51.3%	72	59.5%	70	56.5%	68	58.6%			

	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self Directed		Test-Statistics		
	N	%	N	%	N	%	N	%	N	%	Value	df	Signif
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	2.03	4	0.73
<b>Other services</b>													
Yes	6	5.0%	11	9.4%	11	9.1%	6	4.8%	3	2.6%			
No	115	95.0%	106	90.6%	110	90.9%	118	95.2%	113	97.4%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	7.15	4	0.13

**Table 16**

**Comparison of Study Groups: Self-Reported Health Conditions at Baseline by Respondents in the 4 Year Follow-up**

	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self-Directed	
	N	%	N	%	N	%	N	%	N	%
No health problem	47	38.8%	35	29.9%	49	40.5%	34	27.4%	44	37.9%
Infectious & parasitic disease	12	9.9%	14	12.0%	14	11.6%	16	12.9%	14	12.1%
Neoplasm	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.9%
Endocrine & metabolic disease	0	0.0%	5	4.3%	7	5.8%	3	2.4%	7	6.0%
Blood & blood forming organs	0	0.0%	0	0.0%	2	1.7%	3	2.4%	0	0.0%
Mental disorders	9	7.4%	6	5.1%	4	3.3%	13	10.5%	9	7.8%
Nervous systems & sense organs	10	8.3%	5	4.3%	1	0.8%	3	2.4%	2	1.7%
Circulatory system	4	3.3%	1	0.9%	0	0.0%	5	4.0%	3	2.6%
Respiratory system	5	4.1%	5	4.3%	5	4.1%	4	3.2%	6	5.2%
Digestive system	7	5.8%	2	1.7%	2	1.7%	6	4.8%	4	3.4%
Genitourinary system	3	2.5%	3	2.6%	4	3.3%	4	3.2%	1	0.9%
Pregnancy & complications	6	5.0%	11	9.4%	11	9.1%	11	8.9%	11	9.5%
Skin & subcutaneous tissue	4	3.3%	4	3.4%	3	2.5%	4	3.2%	2	1.7%
Musculoskeletal & connective	8	6.6%	15	12.8%	11	9.1%	10	8.1%	10	8.6%
Congenital anomalies	0	0.0%	0	0.0%	1	0.8%	0	0.0%	0	0.0%
Perinatal	0	0.0%	1	0.9%	1	0.8%	0	0.0%	0	0.0%
Symptoms, signs & ill-defined	6	5.0%	9	7.7%	5	4.1%	8	6.5%	2	1.7%
Injury & poisoning	0	0.0%	0	0.0%	1	0.8%	0	0.0%	0	0.0%
Supplementary codes	0	0.0%	1	0.9%	0	0.0%	0	0.0%	0	0.0%

	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self-Directed	
	N	%	N	%	N	%	N	%	N	%
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%

	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self-Directed		Test Statistics			
	N	%	N	%	N	%	N	%	N	%	Value	df	Signific	
Mental Health Issue at Baseline														
Yes	15	12.4%	17	14.5%	6	5.0%	18	14.5%	12	10.3%				
No	106	87.6%	100	85.5%	115	95.0%	106	85.5%	104	89.7%				
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	7.57	4	0.11	
Number of Health Conditions at Baseline														
0	47	38.8%	35	29.9%	49	40.5%	34	27.4%	44	37.9%				
1	31	25.6%	37	31.6%	29	24.0%	43	34.7%	33	28.4%				
2	23	19.0%	19	16.2%	21	17.4%	29	23.4%	19	16.4%				
3	20	16.5%	26	22.2%	22	18.2%	18	14.5%	20	17.2%				
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	12.46	12	0.41	

Table 17a

Comparison of Study Groups: Baseline Sociodemographic Information on Respondents in the 4 Year Follow-up

	Group										X <sup>2</sup>	df	p-value
	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self-Directed				
	N	%	N	%	N	%	N	%	N	%			
<b>Sex</b>													
Male	4	3.3%	3	2.6%	7	5.8%	6	4.8%	4	3.4%			
Female	117	96.7%	114	97.4%	114	94.2%	118	95.2%	112	96.6%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	2.10	4	0.72
<b>Age Category of Parent at Time 1</b>													
15-19	3	2.5%	10	8.5%	5	4.1%	4	3.2%	8	6.9%			
20-24	20	16.5%	13	11.1%	23	19.0%	24	19.4%	19	16.4%			
25-29	26	21.5%	23	19.7%	28	23.1%	26	21.0%	22	19.0%			
30-34	23	19.0%	24	20.5%	26	21.5%	30	24.2%	24	20.7%			
35-39	26	21.5%	25	21.4%	20	16.5%	27	21.8%	23	19.8%			
40 and Up	23	19.0%	22	18.8%	19	15.7%	13	10.5%	20	17.2%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	15.67	20	0.74
<b>Age Category of Parent at 4 Year Follow-up</b>													
15-19	1	0.8%	1	0.9%			1	0.8%					
20-24	7	5.8%	11	9.4%	9	7.4%	8	6.5%	12	10.3%			
25-29	20	16.5%	17	14.5%	26	21.5%	27	21.8%	23	19.8%			
30-34	26	21.5%	23	19.7%	31	25.6%	27	21.8%	20	17.2%			
35-39	27	22.3%	25	21.4%	23	19.0%	35	28.2%	25	21.6%			
40 and Up	40	33.1%	40	34.2%	32	26.4%	26	21.0%	36	31.0%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	16.47	20	0.69
<b>Marital Status at Time 1</b>													
Married/Common Law	2	1.7%	1	0.9%	2	1.7%	1	0.8%	1	0.9%			
Separated/Divorced/Widowed	87	71.9%	82	70.1%	84	69.4%	83	66.9%	78	67.2%			
Never Married	32	26.4%	34	29.1%	35	28.9%	40	32.3%	37	31.9%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	2.05	8	0.98
<b>Marital Status at 4 Year Follow-up</b>													
Married/With Partner	26	21.5%	22	18.8%	42	34.7%	36	29.0%	28	24.1%			
Separated/Divorced/Widowed/Never Married	95	78.5%	95	81.2%	79	65.3%	88	71.0%	88	75.9%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	10.05	4	0.04*

\* Significant difference

<b>Detailed Marital Status at 4 Year F/U</b>													
Married Once	13	10.7%	12	10.3%	17	14.0%	22	17.7%	16	13.8%			
Common Law	11	9.1%	9	7.7%	19	15.7%	7	5.6%	10	8.6%			
Separated	17	14.0%	21	17.9%	17	14.0%	18	14.5%	18	15.5%			
Divorced	49	40.5%	40	34.2%	33	27.3%	37	29.8%	40	34.5%			



	Group										X <sup>2</sup>	df	p-value	
	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self-Directed					
	N	%	N	%	N	%	N	%	N	%				
Yes														
No	66	54.5%	60	51.3%	65	53.7%	74	59.7%	58	50.0%				
Total	55	45.5%	57	48.7%	56	46.3%	50	40.3%	58	50.0%				
	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	2.72	4	0.61	
<b>Previous Times on Social Assistance</b>														
One	40	60.6%	41	68.3%	39	60.0%	55	75.3%	40	69.0%				
Two	16	24.2%	15	25.0%	21	32.3%	11	15.1%	16	27.6%				
Three or More	10	15.2%	4	6.7%	5	7.7%	7	9.6%	2	3.4%				
Total	66	100.0%	60	100.0%	65	100.0%	73	100.0%	58	100.0%	11.61	8	0.17	
<b>Years Since First on Social Assistance</b>														
<1 Year	3	4.5%	6	10.2%	3	4.6%	2	2.7%	4	6.9%				
<3 Years	10	15.2%	14	23.7%	17	26.2%	22	29.7%	15	25.9%				
<5 Years	16	24.2%	12	20.3%	19	29.2%	15	20.3%	13	22.4%				
<7 Years	7	10.6%	9	15.3%	9	13.8%	9	12.2%	3	5.2%				
<9 Years	8	12.1%	7	11.9%	4	6.2%	11	14.9%	4	6.9%				
<11 Years	6	9.1%	2	3.4%	5	7.7%	4	5.4%	3	5.2%				
11 Years or More	16	24.2%	9	15.3%	8	12.3%	11	14.9%	16	27.6%				
Total	66	100.0%	59	100.0%	65	100.0%	74	100.0%	58	100.0%	23.20	24	0.51	
<b>Employment at Time 1</b>														
Full Time Work for Pay	6	5.0%	4	3.4%	7	5.8%	8	6.5%	2	1.7%				
Part Time Work for Pay	19	15.8%	14	12.0%	12	10.0%	12	9.7%	17	14.7%				
Homemaker	62	51.7%	60	51.3%	70	58.3%	67	54.0%	61	52.6%				
Student	9	7.5%	7	6.0%	6	5.0%	6	4.8%	5	4.3%				
Disabled/Unable to Work	3	2.5%	5	4.3%	6	5.0%	3	2.4%	7	6.0%				
Unemployed	20	16.7%	27	23.1%	19	15.8%	24	19.4%	24	20.7%				
Volunteer	1	0.8%					4	3.2%						
Total	120	100.0%	117	100.0%	120	100.0%	124	100.0%	116	100.0%	25.42	24	0.38	
<b>Country of Birth</b>														
Canadian	101	83.5%	86	73.5%	96	79.3%	105	84.7%	95	81.9%				
Other	20	16.5%	31	26.5%	25	20.7%	19	15.3%	21	18.1%				
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	5.98	4	0.20	
<b>Years in Canada</b>														
Less than 1	1	5.3%			1	4.2%	1	5.3%	1	5.0%				
1-5	2	10.5%	6	21.4%	2	8.3%	5	26.3%	1	5.0%				
6-10	3	15.8%	7	25.0%	10	41.7%	3	15.8%	5	25.0%				
11-15	4	21.1%	4	14.3%	1	4.2%	1	5.3%	2	10.0%				
16-20	1	5.3%	4	14.3%	2	8.3%	3	15.8%	5	25.0%				
More than 20	8	42.1%	7	25.0%	8	33.3%	6	31.6%	6	30.0%				
Total	19	100.0%	28	100.0%	24	100.0%	19	100.0%	20	100.0%	18.29	20	0.57	
<b>First Language Spoken</b>														
English or French	110	90.9%	98	83.8%	101	83.5%	113	91.1%	106	91.4%				

	Group										X <sup>2</sup>	df	p-value
	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self-Directed				
	N	%	N	%	N	%	N	%	N	%			
Other Total	11 121	9.1% 100.0%	19 117	16.2% 100.0%	20 121	16.5% 100.0%	11 124	8.9% 100.0%	10 116	8.6% 100.0%	7.79	4	0.10
<b>Visible Minority</b>													
Yes	17	14.2%	22	19.1%	17	14.3%	16	13.1%	12	10.6%			
No	103	85.8%	93	80.9%	102	85.7%	106	86.9%	101	89.4%			
Total	120	100.0%	115	100.0%	119	100.0%	122	100.0%	113	100.0%	3.59	4	0.46
<b>Religious Affiliation, Growing Up</b>													
Some	101	83.5%	100	85.5%	105	86.8%	107	86.3%	98	84.5%			
None	20	16.5%	17	14.5%	16	13.2%	17	13.7%	18	15.5%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	0.70	4	0.95
<b>Religious Affiliation, Now</b>													
Some	70	57.9%	70	59.8%	81	66.9%	65	52.4%	60	51.7%			
None	51	42.1%	47	40.2%	40	33.1%	59	47.6%	56	48.3%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	7.57	4	0.11

**Table 17b**

**Comparison of Study Groups: Sociodemographic Information on Respondents in the 4 Year Follow-up**

	Group															F Ratio	F Prob	df
	Full Intervention			PHN Intervention			Employment Retraining			Recreation Services			Self-Directed					
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD			
Education Years at Baseline	120	12.4	1.9	117	12.4	2.4	121	12.6	2.4	124	12.3	2.0	116	12.5	2.5	0.25	0.91	4,593
Age of Parent at Baseline	121	32.9	7.9	117	32.9	8.9	121	31.9	8.5	124	31.2	7.0	116	31.8	8.4	1.04	0.39	4,594
Age of Parent at 4 Year Follow-up	121	36.5	7.9	117	36.5	8.9	121	35.4	8.5	124	34.7	7.0	116	35.5	8.3	1.05	0.38	4,594
Age of First Child at Baseline	121	9.5	7.1	117	9.5	8.2	121	7.6	6.5	124	7.2	5.9	116	7.8	6.6	3.13	0.01	4,594
Age of Oldest Child at 4 Year Follow-up	121	13.1	7.2	117	13.1	8.1	121	11.2	6.4	124	10.8	6.0	116	11.7	7.2	2.93	0.02	4,594
Number of Children at Baseline	121	2.0	1.0	117	2.2	1.2	121	1.6	0.8	124	1.8	0.9	116	1.8	1.0	4.30	.0019	4,594
Number of Children at 4 Year Follow-up	121	2.1	1.0	117	2.2	1.2	121	1.9	0.9	124	2.0	1.0	116	2.0	1.1	1.48	0.21	4,594
How Many Times on Assistance Before Baseline	66	1.62	0.94	60	1.43	0.83	65	1.51	0.73	73	1.34	0.65	58	1.36	0.61	1.49	0.21	4,317
Years Since First on Social Assistance at Baseline	66	7.84	6.23	59	6.06	5.53	65	5.76	4.74	74	6.01	4.75	58	7.51	6.60	1.92	0.11	4,317
Monthly Income Maintenance at Baseline	121	1077.81	138.81	117	1096.34	178.95	121	1043.93	119.47	124	1072.69	133.78	116	1060.54	161.82	2.09	0.08	4,594
																X <sup>2</sup> 8.75	df 4	signif 0.07
Number of Months at Baseline	121	16.71	31.71	117	13.86	21.45	121	13.98	22.16	124	14.92	28.08	116	15.06	26.22	0.23	0.92	4,594
Total Cost at Baseline	121	17759.05	32242.28	117	15331.57	23969.81	121	14654.34	23471.81	124	16544.56	33193.33	116	16582.25	29154.65	0.21	0.93	4,594

	Group																	
	Full Intervention			PHN Intervention			Employment Retraining			Recreation Services			Self-Directed					
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	F Ratio	F Prob	df
																X <sup>2</sup> 1.93	df 4	signif 0.75
Number of Months on Social Assistance in Last 12 Months at Baseline	121	7.26	4.58	117	7.97	4.43	121	7.88	4.43	124	8.02	4.46	116	7.41	4.54	0.73	0.57	4,594
Cost for Last 12 Months of Social Assistance at Baseline	121	7843.11	5165.37	117	8699.20	5070.57	121	8257.34	4862.82	124	8585.17	4915.23	116	7893.97	5168.50	0.71	0.58	4,594
																X <sup>2</sup> 3.53	df 4	signif 0.47

**Table 18**

**Comparison of Study Groups: Child Behaviour Checklist Age 4 to 16 Years: Disorder (Ordinal Measures)**

Variables	Full Intervention (N=104)		PHN Intervention (N=98)		Employment Retraining (N=69)		Recreation Services (N=106)		Self Directed (N=79)		Test-Statistics		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	F Ratio	df	F Prob
Conduct Disorder Score (0-30)													
Baseline	2.6	3.7	3.2	3.9	2.0	2.9	2.9	3.5	1.9	2.3	2.48	4,451	0.04
4 Year Follow-up	0.9	2.0	1.5	2.7	1.1	2.1	0.9	1.9	0.9	2.4	1.23	4,451	0.30
Change	-1.6	3.9	-1.7	3.7	-0.9	3.1	-2.0	3.6	-0.9	3.0	1.62	4,451	0.17
Hyperactivity Score (0-12)													
Baseline	4.0	3.3	4.1	3.5	3.4	2.9	3.8	3.0	2.8	2.9	2.15	4,451	0.07
4 Year Follow-up	2.2	2.8	2.5	3.1	1.8	2.4	1.9	2.9	2.0	2.9	0.80	4,451	0.52
Change	-1.8	3.1	-1.6	3.0	-1.6	3.0	-1.8	3.0	-0.9	2.9	1.49	4,451	0.20
Emotional Disorder Score (0-26)												4,451	
Baseline	4.9	4.8	4.8	4.4	4.4	3.9	4.4	3.9	3.7	3.3	1.07	4,451	0.37
4 Year Follow-up	1.7	2.8	2.6	3.7	2.3	3.5	1.7	2.7	1.4	2.4	2.27	4,451	0.06
Change	-3.2	5.2	-2.2	5.0	-2.1	4.7	-2.7	4.2	-2.3	3.2	0.88	4,451	0.47
Number of Disorders												4,451	
Baseline	0.3	0.8	0.4	0.8	0.2	0.5	0.3	0.7	0.2	0.4	1.59	4,451	0.18
4 Year Follow-up	0.1	0.4	0.2	0.5	0.1	0.4	0.1	0.4	0.1	0.3	1.90	4,451	0.11

Variables	Full Intervention (N=104)		PHN Intervention (N=98)		Employment Retraining (N=69)		Recreation Services (N=106)		Self Directed (N=79)		Test-Statistics		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	F Ratio	df	F Prob
Change	-0.2	0.8	-0.2	0.8	-0.1	0.7	-0.2	0.7	-0.1	0.5	0.51	4,451	0.73

**Table 19a**

**Comparison of Study Groups: Child Behaviour Checklist: Child Disorder at Baseline in Recreation Groups**

	Total		Recreation		Non Recreation	
	N	%	N	%	N	%
Conduct Disorder						
No	421	94.0%	193	93.2%	228	94.6%
Yes	27	6.0%	14	6.8%	13	5.4%
Total	448	100.0%	207	100.0%	241	100.0%
Hyperactive Disorder						
No	405	90.4%	185	89.4%	220	91.3%
Yes	43	9.6%	22	10.6%	21	8.7%
Total	448	100.0%	207	100.0%	241	100.0%
Emotional Disorder						
No	388	86.6%	177	85.5%	211	87.6%
Yes	60	13.4%	30	14.5%	30	12.4%
Total	448	100.0%	207	100.0%	241	100.0%
Some Disorder						
No	360	80.4%	165	79.7%	195	80.9%
Yes	88	19.6%	42	20.3%	46	19.1%
Total	448	100.0%	207	100.0%	241	100.0%

**Table 19b**

**Comparison of Study Groups: Child Behaviour Checklist Age 4 to 16 Years: Baseline, 4 Year Follow-up and Change Mean Scores**

Variables	Recreation (N=210)		Non Recreation (N=246)		Total (N=456)		Test Statistics		
	Mean	SD	Mean	SD	Mean	SD	t-value	df	2-tail sig
<b>Conduct Disorder Score (0-30)</b>									
Baseline	2.7	3.6	2.4	3.2	2.6	3.4	.92	454	.359
4 Year Follow-up	.9	1.9	1.2	2.4	1.1	2.2	-1.35	454	.176
Change	-1.8	3.7	-1.3	3.4	-1.5	3.5	-1.73	454	.084
<b>Hyperactivity Score (0-12)</b>									
Baseline	3.9	3.1	3.5	3.2	3.7	3.2	.82	454	.413
4 Year Follow-up	2.1	2.8	2.1	2.9	2.1	2.8	-1.43	454	.154
Change	-1.8	3.0	-1.3	3.0	-1.6	3.0	-1.72	454	.086
<b>Emotional Disorder Score (0-26)</b>									
Baseline	4.6	4.4	4.3	4.0	4.5	4.1	1.32	454	.188
4 Year Follow-up	1.7	2.8	2.1	3.3	1.9	3.1	-.32	454	.751
Change	-2.9	4.7	-2.2	4.4	-2.6	4.6	-1.70	454	.089
<b>Number of Disorders</b>									
Baseline	.3	.7	.3	.6	.3	.7	.88	454	.382
4 Year Follow-up	.1	.4	.1	.4	.1	.4	-.72	454	.471

Variables	Recreation (N=210)		Non Recreation (N=246)		Total (N=456)		Test Statistics		
	Mean	SD	Mean	SD	Mean	SD	t-value	df	2-tail sig
Change	-.2	.7	-.1	.7	-.2	.7	-1.22	454	.221

Table 20

Comparison of Study Groups: Mean Per Person Per Year Practitioner Expenditures for Health and Social Services by Groups (Recreation and Non Recreation)

	Recreation (T <sub>1</sub> N=478: 4Yr N=332)		Non Recreation (T <sub>1</sub> N=672: 4Yr N=417)		Total (T <sub>1</sub> N=1150: 4Yr N=749)		Test Statistics						
	Mean	S.D.	Mean	S.D.	Mean	S.D.	t-value	df	2-Tail Sig	U	W	Z	2-Tailed P
<b>Family Physician/Walk in Clinic</b>													
Time 1	111.42	140.58	112.53	142.22	112.07	141.48	-.13	1148	.896	158539.5	273020.5	-.37	.71
4 Yr F/U	51.41	77.46	55.29	74.85	53.57	75.99	-.69	747	.49	68972.0	156125.0	-.09	.93
<b>Physician Specialist</b>													
Time 1	126.57	573.02	123.59	413.39	124.83	485.92	.10	1148	.92	152761.5	267242.5	-1.78	.07
4 Yr F/U	51.11	160.85	68.50	306.98	60.79	252.85	-.93	747	.35	69029.5	124307.5	-.10	.92
<b>Emergency Room</b>													
Time 1	102.17	250.59	101.01	228.46	101.49	237.80	.08	1148	.93	160595.5	386723.5	-.00	1.00
4 Yr F/U	33.91	91.03	60.34	217.89	48.63	173.90	-2.07	747	.04	67643.0	122921.0	-.83	.41
<b>Physiotherapist</b>													
Time 1	4.71	57.98	6.98	72.95	6.04	67.12	-.56	1148	.57	159137.0	273618.0	-1.09	.27
4 Yr F/U	1.67	17.74	4.34	52.34	3.16	40.80	-.89	747	.37	68851.5	156004.5	-.67	.50
<b>Psychiatrist</b>													
Time 1	2.14	28.98	8.61	104.06	5.92	81.75	-1.32	1148	.19	159497.0	273978.0	-.91	.36
4 Yr F/U	23.95	166.66	9.10	91.77	15.68	130.50	1.55	747	.12	68449.0	155602.0	-.99	.32
<b>Psychologist</b>													
Time 1	25.89	196.60	59.42	432.25	45.48	354.16	-1.58	1148	.11	157755.5	272236.5	-1.39	.16
4 Yr F/U	38.27	266.14	55.00	517.54	47.58	424.70	-.54	747	.59	68690.0	155843.0	-.57	.57
<b>Occupational Therapist</b>													

	Recreation (T <sub>1</sub> N=478: 4Yr N=332)		Non Recreation (T <sub>1</sub> N=672: 4Yr N=417)		Total (T <sub>1</sub> N=1150: 4Yr N=749)		Test Statistics						
	Mean	S.D.	Mean	S.D.	Mean	S.D.	t-value	df	2-Tail Sig	U	W	Z	2-Tailed P
Time 1	3.51	44.57	3.81	45.65	3.69	45.19	-.11	1148	.91	160044.0	274525.0	-.58	.56
4 Yr F/U	14.46	230.89	.00	.00	6.41	153.76	1.28	747	.20	68805.0	155958.0	-1.59	.11
<b>Social Worker</b>													
Time 1	18.47	107.03	12.72	70.91	15.11	87.75	1.09	1148	.27	160044.0	386172.0	-.24	.81
4 Yr F/U	22.82	177.10	20.33	191.74	21.43	185.27	.18	747	.86	68549.5	155702.5	-.76	.44
<b>Family Counsellor</b>													
Time 1	41.56	202.12	64.28	398.20	54.84	331.18	-1.15	1148	.25	159780.0	385908.0	-.34	.73
4 Yr F/U	62.16	392.02	25.85	212.86	41.94	305.83	1.62	747	.11	67907.0	155060.0	-1.41	.16
<b>Children-s Aid</b>													
Time 1	18.76	148.52	47.68	374.82	35.66	302.33	-1.60	1148	.11	155122.5	269603.5	-2.14	.03
4 Yr F/U	1.67	23.49	22.50	225.86	13.27	169.47	-1.67	747	.09	68343.5	123621.5	-1.37	.17
<b>Adolescence/School Counsellor</b>													
Time 1	41.01	232.42	76.35	472.72	61.66	391.45	-1.51	1148	.13	158922.0	273403.0	-.60	.55
4 Yr F/U	51.72	504.01	18.01	165.37	32.95	357.63	1.28	747	.20	69170.5	124448.5	-.05	.96
<b>Probationary Services</b>													
Time 1	3.30	39.74	10.27	147.77	7.37	115.84	-1.01	1148	.31	160321.5	274802.5	-.24	.81
4 Yr F/U	3.56	64.94	.00	.00	1.58	43.24	1.12	747	.26	69013.5	156166.5	-1.12	.26
<b>Child Care/Day Care Services</b>													
Time 1	104.05	701.20	225.63	1137.67	175.09	981.61	-2.07	1148	.04	156518.0	270999.0	-1.84	.07
4 Yr F/U	131.88	976.53	146.88	1082.53	140.23	1036.23	-.20	747	.84	69060.0	156213.0	-.21	.83
<b>Subsidized Day Care Services</b>													

	Recreation (T <sub>1</sub> N=478: 4Yr N=332)		Non Recreation (T <sub>1</sub> N=672: 4Yr N=417)		Total (T <sub>1</sub> N=1150: 4Yr N=749)		Test Statistics						
	Mean	S.D.	Mean	S.D.	Mean	S.D.	t-value	df	2-Tail Sig	U	W	Z	2-Tailed P
Time 1	371.45	1559.34	510.21	1690.06	452.53	1637.73	-1.42	1148	.16	154901.5	269382.5	-1.90	.06
4 Yr F/U	635.17	1991.41	938.20	2505.88	803.88	2295.62	-1.80	747	.07	67111.0	122389.0	-1.23	.22
<b>Nutritionist</b>													
Time 1	.54	8.02	.60	6.52	.58	7.18	-.15	1148	.88	159473.0	273954.0	-1.16	.24
4 Yr F/U	.28	3.85	.00	.00	.13	2.56	1.51	747	.13	68596.5	155749.5	-1.94	.05
<b>Naturopath/Homeopath</b>													
Time 1	1.08	16.47	2.30	21.54	1.80	19.60	-1.04	1148	.30	158990.0	273471.0	-1.53	.12
4 Yr F/U	.00	.00	.00	.00	.00	.00							
<b>Public Health Nurse</b>													
Time 1	4.68	28.98	11.31	104.98	8.56	82.44	-1.35	1148	.18	158591.5	384719.5	-.93	.35
4 Yr F/U	.56	6.12	10.19	181.16	5.92	135.25	-.97	747	.33	68683.5	123961.5	-.92	.36
<b>VON Nurse</b>													
Time 1	11.38	144.65	4.83	77.93	7.55	110.65	.99	1148	.32	159882.0	386010.0	-.86	.39
4 Yr F/U	.00	.00	.00	.00	.00	.00							
<b>St. Elizabeth's Visiting Nurses</b>													
Time 1	.86	11.91	.28	7.19	.52	9.44	1.03	1148	.30	159839.5	385967.5	-1.36	.17
4 Yr F/U	.00	.00	.00	.00	.00	.00							
<b>Chiropractor</b>													
Time 1	5.18	38.71	21.25	191.87	14.57	148.94	-1.80	1148	.07	158130.5	272611.5	-1.34	.18
4 Yr F/U	16.16	106.86	8.21	71.87	11.73	89.12	1.21	747	.22	67761.5	154914.5	-1.60	.11
<b>Home Care Worker</b>													
Time 1	.00	.00	6.81	169.88	3.98	129.87	-.88	1148	.38	160130.0	274611.0	-1.19	.23

	Recreation (T <sub>1</sub> N=478: 4Yr N=332)		Non Recreation (T <sub>1</sub> N=672: 4Yr N=417)		Total (T <sub>1</sub> N=1150: 4Yr N=749)		Test Statistics						
	Mean	S.D.	Mean	S.D.	Mean	S.D.	t-value	df	2-Tail Sig	U	W	Z	2-Tailed P
4 Yr F/U	5.36	97.58	.00	.00	2.37	64.97	1.12	747	.26	69013.5	156166.5	-1.12	.26
<b>Meals on Wheels</b>													
Time 1	.00	.00	.58	14.97	.34	11.44	-.84	1148	.40	160369.0	274850.0	-.84	.40
4 Yr F/U	.00	.00	.00	.00	.00	.00							
<b>Employment Retraining Services</b>													
Time 1	2.04	34.21	16.55	221.83	10.52	171.10	-1.42	1148	.16	159841.0	274322.0	-.96	.34
4 Yr F/U	.00	.00	2.33	47.65	1.30	35.55	-.89	747	.37	69056.0	124334.0	-.89	.37
<b>Recreation Services</b>													
			4 Yr N=420				4 Yr N=753						
Time 1	78.94	120.95	63.61	112.95	69.98	116.53	2.20	1148	.03	151278.0	377406.0	-2.20	.03
4 Yr F/U	86.37	124.00	50.89	104.23	66.58	114.68	4.26	751	.00	60526.5	148936.5	-4.22	<.01
<b>Other Health Care Providers/Services</b>													
			4 Yr N=417				4 Yr N=749						
Time 1	42.47	239.84	39.13	233.12	40.52	235.84	.24	1148	.81	151576.5	377704.5	-2.23	.03
4 Yr F/U	9.18	63.41	3.53	24.55	6.04	46.07	1.67	747	.10	65721.5	152874.5	-2.57	.01
<b>911 Services</b>													
Time 1	5.52	39.23	23.21	482.92	15.86	370.01	-.80	1148	.42	160121.0	386249.0	-.37	.71
4 Yr F/U	2.89	26.22	2.30	47.01	2.56	39.16	.20	747	.84	68556.0	155709.0	-1.60	.11
<b>Ambulance</b>													
Time 1	5.52	39.23	6.07	39.93	5.84	39.62	-.23	1148	.82	160147.0	274628.0	-.32	.75
4 Yr F/U	1.45	18.60	2.30	47.01	1.92	37.18	-.31	747	.75	68972.0	156125.0	-.78	.44
<b>Laboratory Cost</b>													
Time 1	20.77	55.04	25.35	69.87	23.45	64.14	-1.19	1148	.23	151803.5	266284.5	-1.82	.07

	Recreation (T <sub>1</sub> N=478: 4Yr N=332)		Non Recreation (T <sub>1</sub> N=672: 4Yr N=417)		Total (T <sub>1</sub> N=1150: 4Yr N=749)		Test Statistics						
	Mean	S.D.	Mean	S.D.	Mean	S.D.	t-value	df	2-Tail Sig	U	W	Z	2-Tailed P
4 Yr F/U	10.17	81.79	13.80	105.70	12.19	95.80	-.51	747	.61	68984.5	124262.5	-.13	.90
<b>Medication Cost</b>													
Time 1	87.68	361.29	105.78	418.13	98.26	395.43	-.76	1148	.44	157337.5	271818.5	-.79	.43
4 Yr F/U	67.91	376.92	62.77	215.08	65.05	297.66	.23	747	.81	68988.0	156141.0	-.13	.89
<b>Supplies and Devices Cost</b>													
Time 1	8.88	128.32	15.23	189.78	12.59	166.97	-.64	1148	.52	160458.5	274939.5	-.09	.93
4 Yr F/U	2.26	17.51	5.39	41.32	4.00	32.98	-1.29	747	.20	68636.5	123914.5	-.77	.44
<b>Household Help Cost</b>													
Time 1	.00	.00	.00	.00	.00	.00							
<b>Babysitting Cost</b>													
Time 1	.00	.00	.00	.00	.00	.00							
<b>Travel Cost</b>													
Time 1	.00	.00	.00	.00	.00	.00							
<b>Parking Cost</b>													
Time 1	.00	.00	.00	.00	.00	.00							
<b>Out of Pocket Expenses</b>													
Time 1	96.56	383.17	121.01	466.95	110.85	434.09	-.94	1148	.35	157904.5	272385.5	-.63	.53
4 Yr F/U	70.17	378.03	68.16	239.08	69.05	308.27	.09	747	.93	69156.0	124434.0	-.04	.97
<b>Direct Costs w/o Hospital</b>													
Time 1	1250.56	2104.42	1705.98	2672.29	1516.68	2461.55	-3.10	1148	.00	149886.0	264367.0	-1.93	.05
4 Yr F/U	1326.61	2422.36	1586.43	2998.51	1471.26	2759.29	-1.28	747	.20	66387.5	153540.5	-.96	.33

	Recreation (T <sub>1</sub> N=478: 4Yr N=332)		Non Recreation (T <sub>1</sub> N=672: 4Yr N=417)		Total (T <sub>1</sub> N=1150: 4Yr N=749)		Test Statistics						
	Mean	S.D.	Mean	S.D.	Mean	S.D.	t-value	df	2-Tail Sig	U	W	Z	2-Tailed P
<b>Hospital</b>													
Time 1	520.92	2427.47	955.85	6884.39	775.07	5492.74	-1.32	1148	.19	160282.5	274763.5	-.12	.90
4 Yr F/U	28.66	244.89	475.42	5525.63	277.39	4129.96	-1.47	747	.14	68758.0	124036.0	-.67	.50
<b>Direct Costs with Hospital</b>													
Time 1	1771.48	3307.57	2661.82	7750.87	2291.75	6310.14	-2.36	1148	.02	149582.0	264063.0	-1.99	.05
4 Yr F/U	1355.27	2459.49	2061.85	6755.13	1748.65	5308.32	-1.81	747	.07	66697.0	153850.0	-.86	.39
<b>Nat Log Trans Direct w/o Hospital</b>													
Time 1	5.94	1.88	6.19	1.90	6.09	1.89	-2.21	1148	.03	149886.0	264367.0	-1.93	.05
4 Yr F/U	5.53	2.17	5.39	2.38	5.45	2.29	.83	747	.41	66387.5	153540.5	-.96	.33
<b>Nat Log Trans Direct with Hospital</b>													
Time 1	6.13	2.00	6.39	2.00	6.28	2.00	-2.18	1148	.03	149582.0	264063.0	-1.99	.05
4 Yr F/U	5.54	2.18	5.42	2.42	5.48	2.32	.69	747	.49	66697.0	153850.0	-.86	.39

Table 21

Sources of Income in Last 12 Months at Baseline and 4 Years Later and Change Scores

	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self Directed		Test Statistics		
	N	%	N	%	N	%	N	%	N	%	Value	df	Signif
<b>Time 1 Primary Source of Income in Last 12 Months</b>													
GWA	51	42.1%	57	49.1%	49	40.5%	61	49.6%	50	43.1%			
FBA	34	28.1%	34	29.3%	32	26.4%	31	25.2%	29	25.0%			
Unemployment	4	3.3%	2	1.7%	9	7.4%	5	4.1%	2	1.7%			
Wages	22	18.2%	9	7.8%	15	12.4%	8	6.5%	18	15.5%			
Family			1	0.9%			2	1.6%	3	2.6%			
Marriage	6	5.0%	9	7.8%	8	6.6%	11	8.9%	11	9.5%			
Alimony/support	2	1.7%	1	0.9%	2	1.7%	1	0.8%					
Other source	2	1.7%	3	2.6%	6	5.0%	4	3.3%	3	2.6%			
Total	121	100.0%	116	100.0%	121	100.0%	123	100.0%	116	100.0%			
<b>Time 1 Income Source</b>													
Any social assistance/unemployment	119	98.3%	117	100.0%	118	97.5%	121	97.6%	112	96.6%			
	2	1.7%			2	1.7%	2	1.6%	3	2.6%			
					1	0.8%	1	0.8%	1	0.9%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	7.26	8	0.51
Wages and no social assistance													
Other: no wages, no social assistance													
<b>4 Year F/U Income Source</b>													
Any social assistance/unemployment insurance	60	49.6%	55	47.0%	45	37.2%	59	47.6%	56	48.3%			
Wages and no social assistance	52	43.0%	50	42.7%	60	49.6%	51	41.1%	46	39.7%			
Other: no wages, no social assistance	9	7.4%	12	10.3%	16	13.2%	14	11.3%	14	12.1%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	6.36	8	0.61

	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self Directed		Test Statistics							
	N	%	N	%	N	%	N	%	N	%	Value	df	Signif					
<b>4 Year F/U Income Source Profile</b>																		
Social assistance only	19	15.7%	24	20.5%	14	11.6%	21	16.9%	23	19.8%								
Social assistance in combination with work or other	41	33.9%	31	26.5%	31	25.6%	38	30.6%	33	28.4%								
Work, alone or in combination with other - no social assistance	61	50.4%	62	53.0%	76	62.8%	65	52.4%	60	51.7%								
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	7.70	8	0.46					
<b>4 Year F/U On Social Assistance at Interview</b>																		
No	69	57.0%	67	57.3%	81	66.9%	73	58.9%	69	59.5%								
Yes	52	43.0%	50	42.7%	40	33.1%	51	41.1%	47	40.5%								
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	3.32	4	0.51					
<b>4 Year F/U Number of Income Sources</b>																		
1	48	39.7%	55	47.0%	46	38.0%	46	37.1%	43	37.1%								
2	56	46.3%	60	51.3%	67	55.4%	69	55.6%	63	54.3%								
3	17	14.0%	2	1.7%	8	6.6%	8	6.5%	10	8.6%								
4							1	0.8%										
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	19.95	12	0.07					
	Full Intervention			PHN Intervention			Employment Retraining			Recreation Services			Self-Directed			Test Statistics		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	F-ratio	df	F-prob
<b>4 Year F/U Days on Social Assistance in Last 12 Months</b>	121	176.2	181.7	117	169.0	181.2	121	130.5	172.9	124	164.6	179.8	116	169.4	180.2	1.23	4,594	0.30
<b>4 Year F/U Days With Income From Wages in Last 12 Months</b>	121	240.6	171.4	117	214.0	176.3	121	223.0	171.1	124	214.4	178.1	116	203.2	173.5	0.76	4,594	0.55

**Table 22**

**Change from Baseline to 4 Year Follow-up (T1-4Year) in Use of Social Assistance**

	Full Intervention		PHN Intervention		Employment Retraining		Recreation Services		Self Directed		Test Statistics		
	N	%	N	%	N	%	N	%	N	%	Value	df	Signif
<b>Baseline - 4 Year Follow-up</b>													
<b>Change in Employment</b>													
Less fully employed	7	5.8%	7	6.0%	12	10.0%	9	7.3%	8	6.9%			
No change	44	36.7%	35	29.9%	40	33.3%	44	35.5%	37	31.9%			
More fully employed	69	57.5%	75	64.1%	68	56.7%	71	57.3%	71	61.2%			
Total	120	100.0%	117	100.0%	120	100.0%	124	100.0%	116	100.0%	3.74	8	0.88
<b>Change in Social Assistance</b>													
Off social assistance	61	50.4%	62	53.0%	76	62.8%	65	52.4%	60	51.7%			
On social assistance T1 and 4 Year	60	49.6%	55	47.0%	45	37.2%	59	47.6%	56	48.3%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	4.82	4	0.31
<b>Change in Income Sources</b>													
Social assistance only, both times	8	6.6%	9	7.7%	3	2.5%	9	7.3%	10	8.6%			
From social assistance only to social assistance with work or other	9	7.4%	8	6.8%	10	8.3%	7	5.6%	10	8.6%			
From social assistance only to work, no social assistance	7	5.8%	13	11.1%	19	15.7%	13	10.5%	10	8.6%			
From social assistance with work or other to social assistance only	11	9.1%	15	12.8%	11	9.1%	12	9.7%	13	11.2%			
Stay social assistance with work or other	32	26.4%	23	19.7%	21	17.4%	31	25.0%	23	19.8%			
From social assistance with work to work or other, no social assistance	54	44.6%	49	41.9%	57	47.1%	52	41.9%	50	43.1%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	16.36	20	0.69
<b>Change in Income Sources</b>													
Greater proportion of social assistance support	11	9.1%	15	12.8%	11	9.1%	12	9.7%	13	11.2%			
No change	40	33.1%	32	27.4%	24	19.8%	40	32.3%	33	28.4%			
Less social assistance support	70	57.9%	70	59.8%	86	71.1%	72	58.1%	70	60.3%			
Total	121	100.0%	117	100.0%	121	100.0%	124	100.0%	116	100.0%	8.35	8	0.40

	Full Intervention			PHN Intervention			Employment Retraining			Recreation Services			Self-Directed			Test Statistics		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	F-ratio	df	F-prob
<b>Change in Number of Days on Social Assistance in Last 12 Months</b>	120	-62.9	219.0	115	-77.0	224.3	120	-126	210.1	123	-76.1	237.9	116	-62.7	218.9	1.66	4,589	0.16
<b>Change in Number of Days on Wages/Salary in Last 12 Months</b>	119	112.0	188.0	117	136.5	187.3	121	125.5	189.0	122	130.4	186.6	115	93.1	191.2	0.98	4,589	0.42
<b>Change in Number of Days on Other Income Source in Last 12 Months</b>	119	12.3	217.2	115	-5.5	231.2	118	66.7	239.3	122	24.6	229.1	116	51.1	210.7	1.95	4,585	0.10

**Table 23**

**Social Adjustment Scores**

	Full Intervention			PHN Intervention			Employment Retraining			Recreation Services			Self-Directed			Test Statistics		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	F-ratio	F-prob	df
Work (T1)	121	1.7	0.6	116	1.8	0.6	119	1.7	0.5	124	1.7	0.4	116	1.8	0.6	0.59	0.67	4,591
Work (4 Yr)	121	1.5	0.5	115	1.6	0.5	119	1.6	0.6	124	1.5	0.5	114	1.6	0.5	0.18	0.95	4,588
Work (T1-4 Yr)	121	-0.2	0.7	114	-0.2	0.6	117	-0.1	0.6	124	-0.1	0.6	114	-0.2	0.8	0.21	0.93	4,585
Social & Leisure (T1)	121	2.3	0.6	116	2.4	0.5	120	2.5	0.6	124	2.4	0.6	116	2.4	0.6	0.84	0.50	4,592
Social & Leisure (4 Yr)	121	2.1	0.5	116	2.2	0.7	121	2.2	0.7	124	2.3	0.8	116	2.2	0.9	0.89	0.47	4,593
Social & Leisure (T1-4 Yr)	121	-0.2	0.6	115	-0.2	0.7	120	-0.3	0.8	124	-0.2	0.9	116	-0.1	0.8	0.81	0.52	4,591
Extended Family (T1)	121	1.6	0.6	117	1.7	0.5	121	1.6	0.5	124	1.7	0.5	116	1.7	0.6	1.15	0.33	4,594
Extended Family (4 Yr)	121	1.4	0.4	116	1.4	0.4	121	1.4	0.5	124	1.4	0.4	116	1.4	0.5	0.41	0.80	4,593
Extended Family (T1-4 Yr)	121	-0.2	0.5	116	-0.3	0.6	121	-0.2	0.6	124	-0.3	0.7	116	-0.2	0.6	0.48	0.75	4,593
Marital (T1)	1	2.0	0.0	1	1.9	0.0	0	0.0	0.0	3	2.2	0.5	0	0.0	0.0	0.24	0.80	2,4
Marital (4 Yr)	27	1.6	0.6	22	1.8	0.6	40	1.8	0.5	36	1.6	0.4	26	1.6	0.4	0.74	0.57	4,146
Marital (T1-4 Yr)	1	-0.6	0.0	1	-0.3	0.0	0	0.0	0.0	1	-0.1	0.0	0	0.0	0.0	0.00	0.00	0
Parental (T1)	120	1.3	0.5	117	1.4	0.4	120	1.4	0.4	123	1.4	0.4	116	1.4	0.5	0.67	0.62	4,591
Parental (4 Yr)	116	1.3	0.4	109	1.3	0.4	116	1.3	0.5	121	1.3	0.4	114	1.3	0.4	0.59	0.67	4,571
Parental (T1-4 Yr)	115	-0.1	0.6	109	-0.1	0.6	115	-0.1	0.6	120	-0.2	0.6	114	-0.1	0.6	0.64	0.64	4,568
Family Unit (T1)	120	1.8	0.8	117	1.9	0.7	119	1.9	0.8	123	1.9	0.8	115	1.8	0.8	0.30	0.88	4,589
Family Unit (4 Yr)	121	1.6	0.6	116	1.4	0.6	121	1.5	0.6	124	1.5	0.6	116	1.5	0.7	0.77	0.55	4,594
Family Unit (T1-4 Yr)	120	-0.3	0.9	116	-0.4	0.8	119	-0.4	0.9	123	-0.4	0.8	115	-0.3	1.0	0.97	0.42	4,588
Economic (T1)	121	2.9	1.4	117	2.7	1.3	121	2.5	1.4	123	2.6	1.3	116	2.7	1.4	1.85	0.12	4,593
Economic (4 Yr)	121	3.0	1.5	116	2.7	1.4	121	2.4	1.4	124	2.6	1.4	116	2.6	1.5	2.45	0.05	4,593
Economic (T1-4 Yr)	121	0.0	2.0	116	0.0	1.6	121	-0.1	1.6	123	0.0	1.6	116	-0.1	1.9	0.13	0.97	4,592
SAS Subscale Total (T1)	121	2.0	0.4	117	2.0	0.4	120	1.9	0.4	124	2.0	0.4	116	2.0	0.5	3417	0.85	4,593
SAS Subscale Total (4 Yr)	121	1.8	0.4	116	1.8	0.5	121	1.7	0.5	124	1.8	0.5	115	1.8	0.5	0.35	0.84	4,592
SAS Subscale Total (T1-4 Yr)	121	-0.2	0.5	116	-0.2	0.4	120	-0.2	0.5	124	-0.2	0.5	115	-0.2	0.5	0.13	0.97	4,591

	Full Intervention			PHN Intervention			Employment Retraining			Recreation Services			Self-Directed			Test Statistics		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	F-ratio	F-prob	df
SAS Item Total (T1)	121	1.9	0.4	117	2.0	0.3	121	1.9	0.4	124	2.0	0.3	116	1.9	0.4	0.57	0.68	4,594
SAS Item Total (4 Yr)	121	1.7	0.3	116	1.7	0.3	121	1.7	0.4	124	1.7	0.3	116	1.7	0.4	0.14	0.97	4,593
SAS Item Total (T1-4 Yr)	121	-0.2	0.4	116	-0.3	0.4	121	-0.2	0.4	124	-0.2	0.4	116	-0.2	0.4	0.55	0.70	4,593

Table 24

Mean Per Parent Per Year Practitioner Expenditures for Health and Social Services by Group

	Full Intervention (N=121)		PHN Intervention (N=117)		Employment Retraining (N=121)		Recreation Services (N=124)		Self Directed (N=116)		Test Statistics		
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	F-value /P-value	KW $\chi^2$ /P-value	df
<b>Family Physician/Walk in Clinic</b>													
Time 1	204.38	271.54	182.73	235.34	224.32	341.06	189.17	255.33	198.94	373.31	0.34 (0.85)	1.94 (0.75)	4,594
4 Yr F/U	105.05	153.12	122.77	187.96	101.36	122.36	110.80	249.20	71.45	80.64	1.47 (0.21)	7.50 (0.11)	4,594
<b>Physician Specialist</b>													
Time 1	221.25	517.86	347.73	883.39	394.60	921.73	222.70	584.33	177.18	300.57	2.22 (0.07)	0.47 (0.98)	4,594
4 Yr F/U	236.93	1066.34	156.75	339.18	258.71	1019.44	99.45	249.02	77.23	160.52	1.63 (0.17)	3.25 (0.52)	4,594
<b>Emergency Room</b>													
Time 1	65.67	148.81	110.37	262.66	146.40	454.48	88.12	239.24	72.78	186.90	1.64 (0.16)	2.36 (0.67)	4,594
4 Yr F/U	62.94	182.93	80.65	246.53	76.62	203.93	69.42	329.14	35.68	121.18	0.71 (0.59)	5.66 (0.23)	4,594
<b>Physiotherapist</b>													

	Full Intervention (N=121)		PHN Intervention (N=117)		Employment Retraining (N=121)		Recreation Services (N=124)		Self Directed (N=116)		Test Statistics		
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	F-value /P-value	KW $\chi^2$ /P-value	df
Time 1	59.84	381.79	69.46	365.69	140.43	563.59	77.75	298.61	64.01	290.72	0.86 (0.49)	5.15 (0.27)	4,594
4 Yr F/U	78.76	321.01	97.56	438.73	130.36	496.13	50.35	261.05	32.80	198.77	1.36 (0.25)	6.31 (0.18)	4,594
<b>Psychiatrist</b>													
Time 1	84.63	381.43	45.82	281.51	90.11	515.05	64.61	349.59	71.15	341.56	0.25 (0.91)	2.16 (0.71)	4,594
4 Yr F/U	27.88	117.95	70.02	368.13	29.37	216.94	13.12	81.13	20.77	154.88	1.29 (0.27)	5.02 (0.29)	4,594
<b>Psychologist</b>													
Time 1	230.45	1088.35	273.59	1254.39	306.82	1652.10	153.02	799.29	69.70	361.60	0.86 (0.49)	2.50 (0.64)	4,594
4 Yr F/U	120.00	823.62	60.64	441.15	174.55	707.87	46.57	287.38	49.78	387.55	1.16 (0.33)	7.46 (0.11)	4,594
<b>Occupational Therapist</b>													
Time 1	2.64	29.09	37.61	384.75	12.56	97.44	19.35	215.53	0.69	7.43	0.65 (0.63)	2.77 (0.60)	4,594
4 Yr F/U	2.64	29.09	2.05	22.19	17.85	151.61	0.65	7.18	2.07	22.28	1.25 (0.29)	2.28 (0.68)	4,594
<b>Social Worker</b>													
Time 1	131.53	250.07	250.08	632.92	98.22	150.05	128.35	336.89	85.08	109.25	4.13 (0.00) <small>Grp2 vs 3&amp;5</small>	6.12 (0.19)	4,594
4 Yr F/U	36.19	160.78	45.15	210.75	17.81	108.61	51.56	352.03	62.91	298.12	0.58 (0.68)	3.75 (0.44)	4,594
<b>Family Counsellor</b>													

	Full Intervention (N=121)		PHN Intervention (N=117)		Employment Retraining (N=121)		Recreation Services (N=124)		Self Directed (N=116)		Test Statistics		
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	F-value /P-value	KW $\chi^2$ /P-value	df
Time 1	113.91	371.03	159.92	587.39	131.73	715.48	92.52	337.42	166.61	611.80	0.39 (0.81)	3.32 (0.51)	4,594
4 Yr F/U	149.55	720.36	53.97	281.15	17.82	95.74	34.77	225.26	25.22	186.35	2.5141 (0.0406) Grp 1 vs 3	5.70 (0.22)	4,594
<b>Children-s Aid</b>													
Time 1	25.85	111.03	38.61	110.06	39.06	222.49	20.74	99.08	43.14	241.39	0.40 (0.81)	11.54 (0.0211)	4,594
4 Yr F/U	5.17	40.29	51.68	338.78	1.15	8.90	16.81	152.83	45.53	359.45	1.22 (0.30)	3.11 (0.54)	4,594
<b>Adolescence/School Counsellor</b>													
Time 1	43.09	207.25	33.87	123.02	49.99	326.11	16.26	72.08	34.76	202.84	0.47 (0.76)	3.92 (0.42)	4,594
4 Yr F/U	2.30	25.28	2.97	21.20	1.72	14.08	1.12	12.49	3.60	38.73	0.20 (0.94)	2.09 (0.72)	4,594
<b>Probationary Services</b>													
Time 1	17.93	140.04	13.49	70.81	7.33	80.68	7.16	56.48	11.90	111.23	0.27 (0.90)	5.57 (0.23)	4,594
4 Yr F/U	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-
<b>Child Care/Day Care Services</b>													
Time 1	11.57	127.27	0.00	0.00	0.87	7.09	146.49	1511.36	3.32	32.63	1.05 (0.38)	3.15 (0.53)	4,594
4 Yr F/U	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-
<b>Subsidized Day Care Services</b>													
Time 1	149.55	1067.51	144.79	1023.29	60.74	407.99	101.33	733.66	306.85	1817.49	0.84	1.88	

	Full Intervention (N=121)		PHN Intervention (N=117)		Employment Retraining (N=121)		Recreation Services (N=124)		Self Directed (N=116)		Test Statistics		
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	F-value /P-value	KW $\chi^2$ /P-value	df
											(0.50)	(0.76)	4,594
4 Yr F/U	0.00	0.00	0.00	0.00	60.17	661.82	21.17	235.73	0.00	0.00	0.82 (0.51)	2.90 (0.58)	4,594
<b>Nutritionist</b>													
Time 1	2.01	11.91	3.81	32.73	10.15	110.45	0.87	5.37	0.70	4.30	0.68 (0.60)	2.13 (0.71)	4,594
4 Yr F/U	0.33	2.11	0.69	3.90	0.78	4.71	0.00	0.00	0.35	3.76	1.08 (0.37)	5.65 (0.23)	4,594
<b>Naturopath/Homeopath</b>													
Time 1	5.43	33.84	13.24	92.20	8.92	63.92	15.90	99.40	10.92	104.91	0.28 (0.89)	0.67 (0.96)	4,594
4 Yr F/U	0.39	4.27	4.81	52.06	1.94	21.33	3.78	27.81	1.62	17.43	0.44 (0.78)	2.11 (0.72)	4,594
<b>Public Health Nurse</b>													
Time 1	11.40	73.58	19.43	102.37	52.98	390.68	9.02	40.71	33.41	318.39	0.74 (0.56)	4.22 (0.38)	4,594
4 Yr F/U	3.39	34.02	8.92	71.20	0.00	0.00	0.00	0.00	0.32	3.46	1.43 (0.22)	8.38 (0.08)	4,594
<b>VON Nurse</b>													
Time 1	1.54	16.94	16.56	165.84	9.86	101.81	0.60	6.69	20.88	179.27	0.70 (0.59)	1.76 (0.78)	4,594
4 Yr F/U	3.70	40.66	4.78	38.39	1.23	13.55	0.30	3.35	55.91	427.99	1.86 (0.12)	1.01 (0.91)	4,594
<b>St. Elizabeth's Visiting Nurses</b>													
Time 1	5.54	38.99	1.27	13.78	1.23	10.69	21.04	179.73	0.00	0.00	1.33 (0.26)	3.14 (0.54)	4,594

	Full Intervention (N=121)		PHN Intervention (N=117)		Employment Retraining (N=121)		Recreation Services (N=124)		Self Directed (N=116)		Test Statistics		
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	F-value /P-value	KW $\chi^2$ /P-value	df
4 Yr F/U	30.49	335.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.99 (0.41)	3.95 (0.41)	4,594
<b>Chiropractor</b>													
Time 1	40.93	143.44	62.67	315.02	56.59	297.99	23.11	110.07	64.26	280.41	0.62 (0.65)	1.59 (0.81)	4,594
4 Yr F/U	66.22	310.62	3.53	19.20	31.50	164.96	33.09	135.82	34.33	162.29	1.73 (0.14)	5.92 (0.21)	4,594
<b>Home Care Worker</b>													
Time 1	11.76	129.31	107.90	592.73	18.37	202.05	0.00	0.00	53.26	439.34	1.93 (0.10)	28.68 (0.00)	4,594
4 Yr F/U	0.00	0.00	0.00	0.00	43.72	407.47	0.00	0.00	37.94	408.58	0.92 (0.45)	5.33 (0.25)	4,594
<b>Meals on Wheels</b>													
Time 1	0.65	7.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.99 (0.41)	3.95 (0.41)	4,594
4 Yr F/U	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-
<b>Employment Retraining Services</b>													
Time 1	56.29	525.50	144.35	914.27	44.80	270.79	134.52	884.09	92.27	678.66	0.50 (0.74)	1.55 (0.82)	4,594
4 Yr F/U	0.00	0.00	77.22	773.15	0.00	0.00	0.00	0.00	0.00	0.00	1.20 (0.31)	8.25 (0.08)	4,594
<b>Recreation Services</b>													
Time 1	28.35	82.05	24.81	77.34	28.35	82.05	27.66	81.16	27.30	80.71	0.04 (1.00)	0.16 (1.00)	4,594
4 Yr F/U	4.36	33.78	2.26	24.39	6.54	41.20	2.13	23.70	2.27	24.50	0.49	1.96	

	Full Intervention (N=121)		PHN Intervention (N=117)		Employment Retraining (N=121)		Recreation Services (N=124)		Self Directed (N=116)		Test Statistics		
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	F-value /P-value	KW $\chi^2$ /P-value	df
											(0.75)	(0.74)	4,594
<b>Other Health Care Providers/Services</b>													
Time 1	28.79	113.22	81.03	403.02	68.94	298.05	52.41	304.29	40.43	308.29	0.59 (0.67)	2.43 (0.66)	4,594
4 Yr F/U	1.11	6.01	2.58	14.02	3.60	22.80	2.43	9.72	3.18	19.75	0.44 (0.78)	1.94 (0.75)	4,594
<b>911 Services</b>													
Time 1	35.70	144.20	38.97	113.44	43.64	161.00	27.10	102.46	62.07	217.26	0.86 (0.49)	2.99 (0.56)	4,594
4 Yr F/U	3.97	30.73	8.21	43.80	9.92	57.10	11.61	80.13	0.00	0.00	1.04 (0.39)	4.34 (0.36)	4,594
<b>Ambulance</b>													
Time 1	9.92	47.97	30.77	92.08	15.87	59.88	15.48	66.64	14.48	72.79	1.53 (0.19)	6.38 (0.17)	4,594
4 Yr F/U	1.98	21.82	8.21	53.96	9.92	57.10	5.81	64.66	0.00	0.00	0.93 (0.44)	6.06 (0.19)	4,594
<b>Laboratory Cost</b>													
Time 1	4.31	5.93	6.91	9.67	6.40	9.50	5.71	12.67	5.93	11.63	1.11 (0.35)	3.57 (0.47)	4,594
4 Yr F/U	64.71	221.14	140.33	528.55	102.33	223.31	59.05	155.95	62.84	198.11	1.68 (0.15)	5.03 (0.28)	4,594
<b>Medication Cost</b>													
Time 1	521.68	1250.88	501.55	1271.60	570.49	1231.66	246.99	558.07	377.81	933.46	1.79 (0.13)	4.27 (0.37)	4,594
4 Yr F/U	412.93	696.30	474.38	880.51	485.06	932.07	227.12	479.46	358.68	870.25	2.18 (0.07)	9.5331 (0.0491)	4,594

	Full Intervention (N=121)		PHN Intervention (N=117)		Employment Retraining (N=121)		Recreation Services (N=124)		Self Directed (N=116)		Test Statistics		
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	F-value /P-value	KW $\chi^2$ /P-value	df
<b>Supplies and Devices Cost</b>													
Time 1	24.02	105.34	62.81	427.35	50.60	382.03	12.59	104.85	22.05	94.50	0.76 (0.55)	2.82 (0.59)	4,594
4 Yr F/U	11.31	52.31	18.38	99.34	14.54	57.35	3.15	24.72	16.85	101.71	0.84 (0.50)	4.07 (0.40)	4,594
<b>Household Help Cost</b>													
Time 1	31.80	203.47	65.56	306.93	52.64	408.19	112.39	1232.80	23.09	143.71	0.40 (0.81)	9.27 (0.05)	4,594
<b>Babysitting Cost</b>													
Time 1	44.48	233.14	26.00	161.04	42.12	260.48	251.40	2344.04	58.50	273.05	0.92 (0.45)	1.33 (0.86)	4,594
<b>Travel Cost</b>													
Time 1	56.30	172.12	180.89	600.60	163.52	978.00	92.26	264.99	136.50	475.36	0.96 (0.43)	3.76 (0.44)	4,594
<b>Parking Cost</b>													
Time 1	2.79	16.03	36.67	134.72	132.15	1417.99	27.26	237.83	16.36	74.30	0.75 (0.56)	6.14 (0.19)	4,594
<b>Out of Pocket Expenses</b>													
Time 1	545.70	1265.04	564.36	1569.27	621.09	1458.60	259.58	574.54	399.86	975.90	1.77 (0.13)	3.05 (0.55)	4,594
4 Yr F/U	424.24	700.74	492.75	909.15	499.60	960.83	230.28	482.00	375.53	911.43	2.25 (0.06)	9.9833 (0.0407)	4,594
<b>Direct Costs w/o Hospital</b>													
Time 1	2150.62	2804.36	2824.14	3995.96	2690.35	4396.25	1920.57	2713.26	2131.89	3224.78	1.51 (0.20)	4.22 (0.38)	4,594

	Full Intervention (N=121)		PHN Intervention (N=117)		Employment Retraining (N=121)		Recreation Services (N=124)		Self Directed (N=116)		Test Statistics		
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	F-value /P-value	KW $\chi^2$ /P-value	df
4 Yr F/U	1432.30	2660.33	1498.49	2616.39	1598.56	3141.23	864.28	1524.01	1001.33	2196.67	2.07 (0.08)	12.90 (0.0118)	4,594
<b>Hospital</b>													
Time 1	1690.86	5826.38	1694.44	4537.44	1271.42	4399.16	1483.68	5218.17	2830.19	12284.76	0.87 (0.48)	6.06 (0.19)	4,594
4 Yr F/U	1310.74	7026.53	2467.11	17598.77	1835.04	10373.88	1317.40	6410.45	1175.83	6055.12	0.31 (0.87)	3.07 (0.55)	4,594
<b>Direct Costs with Hospital</b>													
Time 1	3841.48	6805.96	4518.58	6066.14	3961.77	6826.46	3404.25	6517.23	4962.08	14211.03	0.60 (0.66)	3.25 (0.52)	4,594
4 Yr F/U	2743.04	9220.19	3965.60	19605.81	3433.60	12208.95	2181.68	6834.60	2177.15	7913.91	0.51 (0.73)	7.53 (0.11)	4,594
<b>Nat Log Trans Direct w/o Hospital</b>													
Time 1	6.88	1.47	7.08	1.43	6.98	1.46	6.75	1.44	6.69	1.73	1.35 (0.25)	4.22 (0.38)	4,594
4 Yr F/U	6.03	1.90	5.88	2.07	5.94	2.14	5.33	2.15	5.45	1.97	2.83 (0.02)	12.90 (0.01)	4,594
<b>Nat Log Trans Direct with Hospital</b>													
Time 1	7.16	1.68	7.43	1.61	7.19	1.60	7.07	1.63	7.12	1.98	0.79 (0.53)	3.25 (0.52)	4,594
4 Yr F/U	6.16	2.04	5.96	2.20	6.09	2.31	5.56	2.38	5.67	2.18	1.69 (0.15)	7.53 (0.11)	4,594
<b>Lost Wages Due to Health</b>													
Time 1	194.68	1803.78	82.89	728.46	11.82	130.00	188.71	1267.67	26.22	244.52	0.83 (0.51)	3.70 (0.45)	4,594



	Full Intervention (N=121)		PHN Intervention (N=117)		Employment Retraining (N=121)		Recreation Services (N=124)		Self Directed (N=116)		Test Statistics		
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	F-value /P-value	KW $\chi^2$ /P-value	df
Time 1	0.00	0.00	2.97	32.17	0.00	0.00	0.00	0.00	0.00	0.00	1.03 (0.39)	4.12 (0.39)	4,594
<b>Veterans Benefits</b>													
Time 1	0.00	0.00	0.00	0.00	4.96	54.55	0.00	0.00	4.40	47.35	0.76 (0.55)	3.06 (0.55)	4,594
<b>Baby Bonus</b>													
Time 1	777.10	587.99	751.49	693.61	678.96	504.95	852.00	692.48	679.93	561.33	1.70 (0.15)	6.43 (0.17)	4,594
<b>Survivors Benefits</b>													
Time 1	7.98	87.82	17.73	135.32	37.83	297.42	18.10	201.52	0.00	0.00	0.76 (0.55)	2.37 (0.67)	4,594
<b>Unemployment Insurance</b>													
Time 1	301.40	977.31	300.44	1227.90	329.79	1112.25	218.53	927.74	221.29	945.87	0.29 (0.89)	5.69 (0.22)	4,594
<b>Family Benefits</b>													
Time 1	1698.19	2950.42	2070.82	3119.06	1790.88	2819.24	2100.23	2998.45	1642.18	2803.58	0.62 (0.65)	2.85 (0.58)	4,594
<b>General Welfare Assistance</b>													
Time 1	2063.45	2555.10	2189.04	3260.00	1915.83	2413.33	2199.61	2620.34	2562.09	4242.33	0.71 (0.58)	1.67 (0.80)	4,594
<b>Other Income</b>													
Time 1	130.02	304.47	161.42	354.05	85.83	156.35	84.27	124.90	146.17	482.52	1.53 (0.19)	4.24 (0.37)	4,594
<b>Private Insurance Income</b>													
Time 1	0.00	0.00	0.00	0.00	22.31	245.45	41.39	322.99	2.80	30.18	1.20	5.76	

	Full Intervention (N=121)		PHN Intervention (N=117 )		Employment Retraining (N=121)		Recreation Services (N=124)		Self Directed (N=116)		Test Statistics		
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	F-value /P-value	KW $\chi^2$ /P-value	df
											(0.31)	(0.22)	4,594
<b>Cash Transfer Effect</b>													
Time 1	5057.04	3062.36	5781.38	5024.40	4924.66	2851.59	5576.25	2884.85	5368.19	4237.79	1.10 (0.35)	4.80 (0.31)	4,594

**Table 25**

**Logistic Regression: Predictors of Exit From Social Assistance**

Variable	B	S.E.	Wald	df	Sig	R	Exp(B)
Ethnicity	0.73	0.284	6.5975*	1	0.01	0.084	2.0751
Work for Pay	0.8534	0.232	13.4850*	1	0	0.1323	2.3475
College Course	0.8479	0.356	5.6873*	1	0.02	0.075	2.3347
SAS Social Score	-0.288	0.173	2.7643	1	0.1	-0.03	0.7498
Perceived Health	-0.05	0.09	0.3392	1	0.56	0	0.9474

\*p<.05

**Table 26**

**Final Predictors of Exit from Social Assistance**

Variable	B	S.E.	Wald	df	Sig	R	Odds Ratio
Ethnicity	0.7463	0.25	8.6741	1	0	0.091	2.1
General Welfare	0.6639	0.18	13.5164	1	0	0.12	1.9
Employment Status	0.8674	0.22	15.5199	1	0	0.13	2.4
College Course	0.9759	0.34	8.331	1	0	0.089	2.7
Constant	-0.909	0.27	11.0361	1	0	-	-

-2 Log Likelihood = 758.02  
 Model Chi Sq (df=4)= 41.84  
 P of Model = <.001  
 Overall Rate of Complete Classification = 65%

**Table 27**

**Child Behaviour Checklist Age 4 to 16 Years: Ordinal Measures of Disorder**

Variables	Total			Test-Statistics		
	N	Mean	SD	Paired T-value	df	2-tail Signific
<b>Conduct Disorder Score (0-30)</b>						
Time 1	456	2.6	3.4	9.15	455	<.01 0.00
4 Year Follow-up	456	1.1	2.2			
<b>Hyperactivity Score (0-12)</b>						
Time 1	456	3.7	3.2	11.16	455	<.01 0.00
4 Year Follow-up	456	2.1	2.8			
<b>Emotional Disorder Score (0-26)</b>						
Time 1	456	4.5	4.1	11.97	455	<.01 0.00
4 Year Follow-up	456	1.9	3.1			
<b>Number of Disorders</b>						
Time 1	456	0.3	0.7	4.66	455	<.01 0.00
4 Year Follow-up	456	0.1	0.4			

**Table 28**

**Child Behaviour Checklist Age 4 to 16 Years: Conduct Disorder**

	Total		4 Year F/U Conduct Disorder				Test-Statistics	
			Yes		No			
	N	%	N	%	N	%	$\chi^2$	Significance
Baseline Conduct Disorder								
Yes	27	5.9%	0	0.0%	27	5.9%		
No	429	94.1%	9	2.0%	420	92.1%		
Total	456	100.0%	9	2.0%	447	98.0%	8.03	<.01
Baseline Hyperactive Disorder								
Yes	43	9.4%	12	2.6%	31	6.8%		
No	413	90.6%	14	3.1%	399	87.5%		
Total	456	100.0%	26	5.7%	430	94.3%	5.69	0.02
Baseline Emotional Disorder								
Yes	60	13.2%	6	1.3%	54	11.8%		
No	396	86.8%	18	3.9%	378	82.9%		
Total	456	100.0%	24	5.3%	432	94.7%	17.01	<.01
Baseline Some Disorder								
Yes	88	19.3%	18	3.9%	70	15.4%		
No	368	80.7%	29	6.4%	339	74.3%		
Total	456	100.0%	47	10.3%	409	89.7%	16.16	<.01

**Table 29**

**Child Behaviour Checklist Age 4 to 16 Years: Conduct Disorder**

	Group																				Total	
	Full Intervention				PHN Intervention				Employment Retraining				Recreation Services				Self Directed					
	4 Yr Conduct				4 Yr Conduct				4 Yr Conduct				4 Yr Conduct				4 Yr Conduct					
	Yes		No		Yes		No		Yes		No		Yes		No		Yes		No			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Baseline Conduct																						
Yes	0	0.0%	5	4.8%	0	0.0%	9	9.2%	0	0.0%	3	4.3%	0	0.0%	9	8.5%	0	0.0%	1	1.3%	27	5.9%
No	1	1.0%	98	94.0%	3	3.1%	86	88.0%	2	2.9%	64	93.0%	2	1.9%	95	90.0%	1	1.3%	77	97.0%	429	94.0%

**Table 30**

**Child Behaviour Checklist Age 4 to 16 Years: Hyperactive Disorder**

	Group																				Total	
	Full Intervention				PHN Intervention				Employment Retraining				Recreation Services				Self Directed					
	4 Yr Hyperactive				4 Yr Hyperactive				4 Yr Hyperactive				4 Yr Hyperactive				4 Yr Hyperactive					
	Yes		No		Yes		No		Yes		No		Yes		No		Yes		No			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Baseline Hyperactive																						
Yes	2	1.9%	10	9.6%	6	6.1%	8	8.2%	0	0.0%	3	4.3%	3	2.8%	7	6.6%	1	1.3%	3	3.8%	43	9.4%
No	3	2.9%	89	86.0%	2	2.0%	82	84.0%	1	1.4%	65	94.0%	5	4.7%	91	86.0%	3	3.8%	72	91.0%	413	91.0%



	Group																				Total		
Baseline																							
Some Disorder																							
Yes	3	2.9%	15	14.0%	6	6.1%	18	18.0%	1	1.4%	11	16.0%	6	5.7%	18	17.0%	2	2.5%	8	10.0%	88	19.0%	
No	5	4.8%	81	78.0%	11	11.0%	63	64.0%	4	5.8%	53	77.0%	6	5.7%	76	72.0%	3	3.8%	66	84.0%	368	81.0%	

**Table 33**

**Mean Per Person (Child) Per Year Practitioner Expenditures by Group at 4 Year Follow-up**

	Full Intervention (N=158)		PHN Intervention (N=161)		Employment Retraining (N=124)		Recreation Services (N=174)		Self Directed (N=132)		Test Statistics		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	F-Ratio/ F-Prob.	KW X <sup>2</sup> / P-value	df
Family Physician	54.29	54.28	49.95	48.01	61.16	85.96	48.79	93.77	55.34	89.21	0.68 0.61	4.65 0.33	4,744
Physician Specialist	68.71	191.05	77.25	397.31	62.05	255.37	35.13	125.86	63.88	212.31	0.66 0.62	5.12 0.28	4,744
Emergency Room	34.58	93.53	85.35	304.76	53.40	144.03	33.30	88.96	36.37	128.26	2.60 0.04*	2.69 0.61	4,744
Physiotherapist	3.27	25.49	9.18	82.09	1.19	13.27	0.21	2.80	1.40	16.08	1.24 0.29	3.30 0.51	4,744
Psychiatrist	46.51	237.47	16.84	134.74	2.43	22.26	3.46	32.84	5.93	63.10	3.13 0.01*	6.87 0.14	4,744
Psychologist	57.44	337.75	95.31	774.94	31.94	180.60	20.86	177.06	27.50	288.44	0.82 0.51	4.68 0.32	4,744
Occupational Therapist	30.38	334.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.22 0.30	7.49 0.11	4,744
Social Worker	23.75	120.70	16.40	100.87	8.97	76.73	21.97	216.30	35.80	313.70	0.37 0.83	3.86 0.43	4,744

	Full Intervention (N=158)		PHN Intervention (N=161)		Employment Retraining (N=124)		Recreation Services (N=174)		Self Directed (N=132)		Test Statistics		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	F-Ratio/ F-Prob.	KW X <sup>2</sup> / P-value	df
Family Counsellor	107.70	523.82	50.70	307.41	3.73	25.71	20.80	203.50	16.33	162.86	2.81 0.02*	11.66 0.02*	4,744
Children's Aid	2.64	33.17	58.28	361.29	0.00	0.00	0.80	7.43	0.00	0.00	3.67 0.01*	21.70 0.00*	4,744
Adolescence/ School Counsellor	87.12	702.95	13.39	69.74	22.43	225.06	19.58	188.15	19.49	182.49	1.16 0.33	1.67 0.80	4,744
Probation Officer	0.00	0.00	0.00	0.00	0.00	0.00	6.80	89.71	0.00	0.00	0.83 0.51	3.30 0.51	4,744
Day Care	113.20	826.40	178.26	1238.13	67.74	754.34	148.85	1097.33	182.95	1142.93	0.29 0.88	1.62 0.81	4,744
Subsidized Day Care	1001.04	2450.87	675.65	2174.50	1190.85	2771.36	302.93	1379.52	1021.10	2608.10	3.72 0.01*	13.25 0.01*	4,744
Nutritionist	0.17	1.51	0.00	0.00	0.00	0.00	0.39	5.12	0.00	0.00	0.72 0.58	4.76 0.31	4,744
Naturopath	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Public Health Nurse	0.00	0.00	24.54	290.94	1.80	20.08	1.07	8.43	0.56	6.49	0.97 0.42	6.73 0.15	4,744
VON Nurse	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
St. Elizabeth Nurse	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
Chiropractor	6.76	53.55	.00	.00	16.06	72.40	24.70	138.18	10.85	106.46	1.83 0.12	15.83 0.00*	4,744
Home Care Worker	.00	.00	.00	.00	.00	.00	10.22	134.79	.00	.00	0.83 0.51	3.30 0.51	4,744
Meals on Wheels	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
Employment Retraining	.00	.00	.00	.00	7.85	87.38	.00	.00	.00	.00	1.26 0.28	5.04 0.28	4,744
Recreation Services	101.23	128.71	40.97	95.86	74.48	119.24	72.79	118.27	41.04	95.99	7.86 0.00*	30.33 0.00*	4,744

	Full Intervention (N=158)		PHN Intervention (N=161)		Employment Retraining (N=124)		Recreation Services (N=174)		Self Directed (N=132)		Test Statistics		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	F-Ratio/ F-Prob.	KW X <sup>2</sup> / P-value	df
Other Health Practitioner	4.24	18.80	4.79	34.70	4.05	20.30	13.67	85.62	1.52	7.00	1.66 0.16	8.67 0.07	4,744
911 Service	3.04	26.92	5.96	75.66	.00	.00	2.76	25.66	.00	.00	0.58 0.68	3.17 0.53	4,744
Ambulance Service	1.52	19.09	5.96	75.66	.00	.00	1.38	18.19	.00	.00	0.66 0.62	1.57 0.81	4,744
Lab Costs	12.72	103.38	18.73	156.66	12.11	49.04	7.86	55.57	9.37	56.51	0.31 0.87	1.08 0.90	4,744
Medication Cost	54.13	130.98	51.51	225.96	62.70	193.74	80.43	505.88	76.57	221.24	0.30 0.88	2.64 0.62	4,744
Supplies & Devices Cost	2.03	19.00	5.99	52.52	6.04	34.28	2.46	16.09	4.06	30.76	0.50 0.74	1.28 0.86	4,744
Out of Pocket Expenses	56.16	138.07	57.49	272.04	68.74	210.38	82.89	505.75	80.62	221.96	0.26 0.90	2.29 0.68	4,744
Direct Costs, W/O Hospital	1817.12	2715.70	1484.99	3154.22	1691.96	2841.33	881.20	2028.46	1611.01	2965.85	2.92 0.02*	22.00 0.00*	4,744
Hospital	30.11	217.15	423.59	5005.20	1023.23	8370.84	27.34	268.23	24.03	276.09	1.49 0.20	4.58 0.33	4,744
Direct Costs, With Hospital	1847.24	2774.48	1908.58	7139.39	2715.19	8820.04	908.54	2041.11	1635.04	2998.92	2.20 0.07	21.91 0.00*	4,744
Nat Log Trans. Direct, No Hospital	6.04	2.13	5.29	2.27	5.63	2.44	5.06	2.10	5.29	2.46	4.51 0.00*	22.00 0.00*	4,744
Nat Log Trans. Direct, With Hospital	6.05	2.14	5.32	2.30	5.70	2.54	5.08	2.12	5.29	2.46	4.43 0.00*	21.91 0.00*	4,744

\*Group 4 is significantly different in emergency expenditures from Group 2.

\*Group 1 is significantly different in psychiatrist expenditures from Groups 3 and 4.

\*Group 1 is significantly different in family counsellor expenditures from Groups 3, 4 and 5.

\*Group 2 is significantly different in children's aid expenditures from Groups 1, 3, 4 and 5.

\*Groups 1, 3 and 5 are significantly different in subsidized day care expenditures from Group 4.

- \*Group 2 is significantly different in subsidized day care expenditures from Group 3.
- \*Group 1 is significantly different in chiropractor expenditures from Group 4.
- \*Group 2 is significantly different in chiropractor expenditures from Groups 3 and 4.
- \*Group 1 is significantly different in recreation services expenditures from Groups 2, 4 and 5.
- \*Group 2 is significantly different in recreation services expenditures from Groups 3 and 4.
- \*Groups 3 and 4 are significantly different in recreation services expenditures from Group 5.
- \*Group 1 is significantly different in direct costs, wo hospital expenditures from Groups 2, 4 and 5.
- \*Group 3 is significantly different in direct costs, wo hospital expenditures from Group 4.
- \*Group 1 is significantly different in direct costs, with hospital expenditures from Groups 2, 4 and 5.
- \*Group 3 is significantly different in direct costs, with hospital expenditures from Group 4.
- \*Group 1 is significantly different in nat log trans. direct, no hosp. expenditures from Groups 2, 4 and 5.
- \*Group 1 is significantly different in nat log trans. direct, with hosp. expenditures from Groups 2, 4 and 5.

**Table 34a**

**Child Behaviour Checklist Age 4 to 16 Years: Conduct Disorder**

	Recreation				Non Recreation				Total	
	4 Yr Follow-up Conduct				4 Yr Follow-up Conduct					
	Yes		No		Yes		No			
	N	%	N	%	N	%	N	%		
T1 Conduct										
Yes	0	.0%	14	6.7%	0	.0%	13	5.3%	27	5.9%
No	3	1.4%	193	92.0%	6	2.4%	227	92.0%	429	94.0%

**Table 34b**

**Child Behaviour Checklist Age 4 to 16 Years: Emotional Disorder**

	Recreation				Non Recreation				Total	
	4 Yr Follow-up Emotional Disorder				4 Yr Follow-up Emotional Disorder					
	Yes		No		Yes		No			
	N	%	N	%	N	%	N	%		
T1 Emotional										
Yes	3	1.4%	27	13%	3	1.2%	27	11%	60	13%
No	5	2.4%	175	83%	13	5.3%	203	83%	396	87%

**Table 34c**

**Child Behaviour Checklist Age 4 to 16 Years: Hyperactive Disorder**

	Recreation				Non Recreation				Total	
	4 Yr Follow-up Hyperactive				4 Yr Follow-up Hyperactive					
	Yes		No		Yes		No			
	N	%	N	%	N	%	N	%		
T1 Hyperactive										
Yes	5	2.4%	17	8.1%	7	2.8%	14	5.7%	43	9.4%
No	8	3.8%	180	86.0%	6	2.4%	219	89.0%	413	91.0%

**Table 34d**

**Child Behaviour Checklist Age 4 to 16 Years: Any Disorder**

	Recreation				Non Recreation				Total	
	4 Yr Follow-up Some Disorder				4 Yr Follow-up Some Disorder					
	Yes		No		Yes		No			
	N	%	N	%	N	%	N	%		
T1 Some Disorder										
Yes	9	4.3%	33	16%	9	3.7%	37	15%	88	19%
No	11	5.2%	157	75%	18	7.3%	182	74%	368	81%

Table 35

Competence 4 Year Follow-up: Competence Scores by Recreation Group

	Recreation			Non Recreation			Total			Statistics		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	t-value	df	2-Tail Sig
Activities score 0-10	210	3.89	1.87	246	3.73	1.82	456	3.80	1.85	.94	454	.347
Social Score 0-12	210	6.33	1.53	246	6.20	1.57	456	6.26	1.55	.92	454	.357
School Score 0-6	207	4.89	1.05	241	4.69	1.10	448	4.79	1.08	1.96	446	.050
Raw Competence Score 0-28	207	15.05	3.05	241	14.66	3.12	448	14.84	3.09	1.32	446	.187
Competence T Score	207	43.71	8.50	241	42.61	8.68	448	43.12	8.60	1.34	446	.179

**Table 36**

**Competence 4 Year Follow-up: Competence Scores by Baseline Conduct Disorder**

	Conduct Disorder						Total			Statistics		
	No			Yes								
	N	Mean	SD	N	Mean	SD	N	Mean	SD	t-value	df	2-Tail Sig
Activities score 0-10	429	3.80	1.85	27	3.91	1.78	456	3.80	1.85	-.30	454	.766
Social Score 0-12	429	6.25	1.53	27	6.39	1.81	456	6.26	1.55	-.44	454	.659
School Score 0-6	421	4.82	1.05	27	4.26	1.38	448	4.79	1.08	2.62	446	.009
Raw Competence Score 0-28	421	14.86	3.05	27	14.56	3.71	448	14.84	3.09	.49	446	.624
Competence T Score	421	43.17	8.49	27	42.33	10.33	448	43.12	8.60	.49	446	.626

**Table 37**

**Competence 4 Year Follow-up: Competence Scores by Baseline Hyperactivity**

	Hyperactive Disorder						Total			Statistics		
	No			Yes								
	N	Mean	SD	N	Mean	SD	N	Mean	SD	t-value	df	2-Tail Sig
Activities score 0-10	413	3.80	1.85	43	3.83	1.80	456	3.80	1.85	-.08	454	.938
Social Score 0-12	413	6.34	1.49	43	5.53	1.91	456	6.26	1.55	3.26	454	.001
School Score 0-6	405	4.89	.98	43	3.83	1.47	448	4.79	1.08	6.39	446	.000

Raw Competence Score 0-28	405	15.01	2.99	43	13.19	3.52	448	14.84	3.09	3.74	446	.000
Competence T Score	405	43.61	8.33	43	38.42	9.77	448	43.12	8.60	3.82	446	.000

**Table 38**  
**Competence 4 Year Follow-up: Competence Scores by Baseline Emotional Disorder**

	Emotional Disorder						Total			Statistics		
	No			Yes			N	Mean	SD	t-value	df	2-Tail Sig
	N	Mean	SD	N	Mean	SD						
Activities score 0-10	396	3.86	1.88	60	3.41	1.53	456	3.80	1.85	1.79	454	.074
Social Score 0-12	396	6.27	1.54	60	6.18	1.63	456	6.26	1.55	.46	454	.645
School Score 0-6	388	4.81	1.08	60	4.63	1.10	448	4.79	1.08	1.17	446	.242
Raw Competence Score 0-28	388	14.93	3.04	60	14.22	3.36	448	14.84	3.09	1.68	446	.094
Competence T Score	388	43.39	8.47	60	41.33	9.33	448	43.12	8.60	1.73	446	.085

**Table 39**  
**Competence 4 Year Follow-up: Competence Scores by Baseline Any Disorder**

	Some Disorder						Total			Statistics		
	No			Yes			N	Mean	SD	t-value	df	2-Tail Sig
	N	Mean	SD	N	Mean	SD						
Activities score 0-10	368	3.85	1.88	88	3.64	1.69	456	3.80	1.85	.95	454	.341
Social Score 0-12	368	6.32	1.49	88	6.02	1.77	456	6.26	1.55	1.65	454	.100

School Score 0-6	360	4.88	1.00	88	4.38	1.29	448	4.79	1.08	3.98	446	.000
Raw Competence Score 0-28	360	15.03	2.99	88	14.03	3.36	448	14.84	3.09	2.74	446	.006
Competence T Score	360	43.68	8.33	88	40.81	9.34	448	43.12	8.60	2.83	446	.005

**Table 40**

**Competence 4 Year Follow-up: Competence Scores by Group and Disorder**

	Group										Recreation	Group Conduct Disorder	Interaction Recreation X Conduct Disorder			
	Recreation Conduct Disorder					Non Recreation Conduct Disorder								Total		
	No (N=193)		Yes (N=14)			No (N=228)		Yes (N=13)						(N=448)		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD				F Statistics/ P Value	F Statistics/ P Value	F Statistics/ P Value
	Activities score 0-10	3.82	1.84	4.25	2.00	3.77	1.83	3.54	1.49	3.80				1.83	1.120 0.290	.075 .784
Social Score 0-12	6.25	1.49	7.04	1.71	6.24	1.55	5.69	1.70	6.25	1.54	4.878 .028	.153 .696	4.839 .028			
School Score 0-6	4.92	1.03	4.50	1.29	4.73	1.07	4.00	1.47	4.79	1.08	2.623 .106	7.351 .007	.530 .467			
Raw Competence Score 0-28	14.99	2.99	15.79	3.82	14.74	3.10	13.23	3.21	14.84	3.09	5.255 .022	.343 .558	3.543 .060			
Competence T Score	43.56	8.33	45.64	10.73	42.83	8.63	38.77	8.93	43.12	8.60	4.978 .026	.338 .562	3.239 .073			

Table 41

Competence 4 Year Follow-up: Competence Scores by Disorder Time 1 and Group

	Group										Recreation	Group Hyperactive Disorder	Interaction Recreation X Hyperactive Disorder		
	Recreation Hyperactive Disorder					Non Recreation Hyperactive Disorder								Total	
	No (N=185)		Yes (N=22)			No (N=220)		Yes (N=21)						(N=448)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD				F Statistics/ P Value	F Statistics/ P Value
Activities score 0-10	3.89	1.90	3.57	1.36	3.72	1.78	4.10	2.17	3.80	1.83	.378 .539	.009 .923	1.393 .239		
Social Score 0-12	6.35	1.50	5.89	1.55	6.31	1.45	5.17	2.20	6.25	1.54	2.391 .123	10.870 .001	1.968 .161		
School Score 0-6	4.97	1.00	4.27	1.24	4.82	.96	3.36	1.57	4.79	1.08	10.391 .001	42.854 .000	5.434 .020		
Raw Competence Score 0-28	15.20	3.05	13.73	2.78	14.85	2.94	12.62	4.15	14.84	3.09	2.224 .137	14.441 .000	.606 .437		
Competence T Score	44.16	8.48	39.91	7.86	43.16	8.19	36.86	11.42	43.12	8.60	2.219 .137	15.061 .000	.571 .450		

Table 42

Competence 4 Year Follow-up: Competence Scores by Baseline Disorder and Group

	Group										Recreation	Group Emotional Disorder	Interaction Recreation X Emotional Disorder		
	Recreation Emotional Disorder					Non Recreation Emotional Disorder								Total	
	No (N=177)		Yes (N=30)			No (N=211)		Yes (N=30)						(N=448)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD				F Statistics/ P Value	F Statistics/ P Value
Activities score 0-10	3.90	1.91	3.55	1.40	3.82	1.83	3.27	1.66	3.80	1.83	.519 .472	3.221 .073	.158 .691		
Social Score 0-12	6.29	1.53	6.38	1.44	6.25	1.53	5.97	1.80	6.25	1.54	1.123 .290	.185 .667	.790 .375		
School Score 0-6	4.92	1.07	4.77	.97	4.72	1.08	4.50	1.22	4.79	1.08	2.374 .124	1.517 .219	.057 .811		
Raw Competence Score 0-28	15.10	3.08	14.70	2.90	14.79	3.01	13.73	3.75	14.84	3.09	2.239 .135	2.925 .088	.584 .445		
Competence T Score	43.88	8.57	42.67	8.17	42.98	8.38	40.00	10.33	43.12	8.60	2.243 .135	3.103 .079	.550 .459		

Table 43

Competence 4 Year Follow-up: Competence Scores by Baseline Disorder and Group

	Group										Group	Interaction	
	Recreation Some Disorder				Non Recreation Some Disorder				Total				Recreation
	No (N=165)		Yes (N=42)		No (N=195)		Yes (N=46)		(N=448)		F Statistics/ P Value	F Statistics/ P Value	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD			
Activities score 0-10	3.90	1.92	3.65	1.54	3.78	1.81	3.62	1.83	3.80	1.83	.124 .725	.898 .344	.036 .849
Social Score 0-12	6.30	1.49	6.31	1.62	6.32	1.46	5.75	1.88	6.25	1.54	2.133 .145	2.355 .126	2.571 .110
School Score 0-6	4.96	1.01	4.64	1.16	4.82	.99	4.14	1.36	4.79	1.08	6.353 .012	15.594 .000	2.116 .146
Raw Competence Score 0-28	15.16	3.01	14.61	3.19	14.93	2.98	13.51	3.46	14.84	3.09	3.290 .070	7.297 .007	1.421 .234
Competence T Score	44.05	8.38	42.36	8.94	43.37	8.30	39.39	9.57	43.12	8.60	3.221 .073	7.792 .005	1.268 .261