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"The Costs of a Public Health Infrastructure for Delivering Parenting and Family Support"

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Abstract

Objectives.—To estimate the costs of building a public health infrastructure for delivering a population-wide evidence-based multi-level system of parenting interventions to strengthen parenting; reduce risk for child maltreatment and coercive parenting practices; and reduce the prevalence of early child behavioral and emotional problems.

Methods.—Using data from 9 South Carolina counties, this study examines the costs to service agencies of training a wide range of providers. Using data on the number of children and families served, the paper estimates the total costs of training providers sufficient to treat all children and families in a hypothetical community.

Results.—The costs of the universal media and communication component totaled less than $1.00 per child in the population. The costs of training service providers to deliver at other intervention levels were quite modest ($11.74 on a per child basis).

Conclusions: This study shows that a population-wide system of efficacious parenting programs aimed at reducing child behavioral and emotional problems and promoting effective parenting is quite feasible. Rough estimates suggest that these costs could be recovered in a single year by as little as a 10% reduction in the rate of abuse and neglect.

Ineffective and harsh parenting has been linked to child maltreatment and a variety of other undesirable outcomes and constitutes an important public health problem (Berger & Brooks-Gunn, 2005). These outcomes include disruptive behavior and conduct disorder as well as other child behavioral and emotional problems (Dishion & Andrews, 1995; Hawkins,

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Catalano, & Miller, 1992; McCord, 1988; Patterson, DeBaryshe, & Ramsey, 1989). These childhood problems, as well as the long-term sequelae of child maltreatment, in turn hinder school performance and relationships with peers and adults. These problems reinforce each other and compromise these children's functioning over time, substantially increasing their risk for substance use, delinquency, academic failure, and risky sexual behavior (Ary et al., 1999; Dishion & Andrews, 1995; Hawkins, Catalano, & Miller, 1992; Patterson, DeBaryshe, & Ramsey, 1989).

Child maltreatment specifically as well as children's behavioral and emotional problems associated with problematic parenting collectively exerts an enormous toll on society. Child maltreatment results in costs associated with utilization of administrative services and systems (e.g., child protective services, foster care, judicial system), child treatment services (e.g., healthcare, mental health, educational systems), long-term impact (e.g., psychological and health problems in adulthood), and next generation victimization. Although much uncertainty exists about the cost of child maltreatment and its consequences, Prevent Child Abuse America estimated costs associated with child abuse and neglect in the U.S. to be over $94 billion per year (2001 dollars). Children's behavioral and emotional problems and, in particular conduct disorders, generate costs associated with harm to the youths themselves and other members of society (e.g., victims of crime) and exceed $400 billion per year for the U.S (A Biglan et al., 2004).

Given the enormous costs associated with both child maltreatment and children's behavioral and emotional problems, the savings stemming from effective preventive interventions are potentially quite large. A particularly promising vehicle for prevention of both child maltreatment and child behavioral/emotional problems can be found in evidence-based parenting interventions. The most effective parenting interventions for prevention of behavioral/emotional problems in young children are derived from social-learning, functional analysis, and cognitive-behavioral principles (McMahon &Kotler, 2004; Prinz & Jones, 2003; Sanders, Markie-Dadds, Turner, & Ralph, 2004; Taylor & Biglan, 1998). Various studies have demonstrated that such programs improve parenting skills and children's behaviors (Barlow & Stewart-Brown, 2000; Prinz & Dumas, 2004; Sanders, Markie-Dadds, Turner, & Ralph, 2004; Taylor & Biglan, 1998; Webster-Stratton, 1984, 1998; Webster-Stratton, Hollinsworth, & Kolpacoff, 1989), and those effects have been replicated across different studies, investigators, and populations (Sanders, 1999). Multiple best-practice lists identify such interventions as exemplary. These parenting-skills interventions are associated with large effect sizes (Serketich & Dumas, 1996); and those effects often generalize to a variety of home and community settings (McNeil, Eyberg, Eisenstadt, Newcomb, & Funderburk, 1991) and are maintained over time (McMahon, 1999; Sanders, Markie-Dadds, Tully, & Bor, 2000; Webster-Stratton, Hollinsworth, & Kolpacoff, 1989).

Although effective, such programs are not accessible to many. To improve access, a public health approach to improving parenting is required. Reducing the prevalence of children's behavior problems will require that a large proportion of the population be reached with effective parenting strategies (A. Biglan, 1995). An example of a public health approach to parenting is the Triple P Positive Parenting Program system (Sanders, 1999). Triple P is one

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of the few multi-level, population-based parenting interventions with sufficient empirical support to warrant implementation at the population level. Triple P is unique in that this package of interventions is conceptualized and organized on a population basis and was designed for broad dissemination. The program includes multiple levels of parenting support that allow each family to receive the "minimally sufficient" dose or level of programming (Sanders, 1999). This approach holds out the promise of implementing the program on a broad scale in a cost-effective manner. The strength of evidence and public health promise is so strong that the United Kingdom's National Institute of Clinical Excellence (NICE) judged the program cost-effective and recommended that it be made available to all families in the United Kingdom through the National Health Service.

Using data from a unique population trial in South Carolina, this article estimates the costs of building a public health infrastructure for delivering a multi-level parenting and family support intervention. The study provides an excellent opportunity to examine the dissemination of Triple P in previously unexposed communities. These analyses estimate the costs of implementing an infrastructure for delivering Triple P throughout the community. These costs correspond to the resources required to train the appropriate number of providers with the necessary skills. The number of providers and therefore the amount of training provided was determined for a hypothetical community of roughly 100,000 families with young children (ages 0 to 8).

PRIOR RESEARCH

The Triple P system enhances parental competence, prevents dysfunctional parenting practices, and promotes better teamwork between partners, thereby reducing behavioral and emotional problems in children and adolescents. The program includes five levels of increasing intensity and narrowing population reach. Level 1 is a media and communication strategy targeting all parents. Level 2 is a 1–2 session intervention; Level 3 is a more intensive but brief 4-session primary care intervention; Level 4 is a 8–10 session active skills training program; and level 5 targets parenting, partner skills, emotion coping skills, and attribution retraining for the highest-risk families.

To date, the full system has been implemented in 14 different countries on 4 continents (North America, Australia, Europe, and Asia), in many US states, and in four entire states in Australia. A sophisticated dissemination system (Triple P International) provides international training and accreditation. The program uses mass media to normalize and acknowledge the difficulties of parenting experiences; to break down parents' sense of social isolation regarding parenting; to de-stigmatize getting help; to impart parenting information directly to parents; and to alter the community context for parenting (Sanders, 1999).

A series of controlled trials have evaluated the system and consistently have shown that the program improves child behavior problems, parenting practices, and parents' adjustment. Studies have been conducted on each intervention level and delivery format with consistent results. Several independent site replications have occurred (e.g., Zubrick et al, 2005) as have replication trials in various countries (e.g., Leung et al, 2003).

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METHODS

U.S. Triple P System Population Trial

The population in the U.S. Triple P System Population Trial (TPSPT) includes all families in the nine counties who have at least one child under the age of eight years (Prinz & Sanders, 2007). The trial involves 18 South Carolina counties ranging in population from 50,000 to 175,000. These counties were matched in nine pairs based on child-maltreatment prevalence, population size, and poverty. One county in each pair was randomized to county-wide dissemination of the Triple P system; the other represented a comparison community. Families in those communities had access to whatever parenting programs were available there.

The dissemination condition includes implementation of all five levels of the Triple P system. Level 1 (Universal Triple P: media and communication strategies) involves newspaper coverage and positive parenting articles, radio public service announcements, informational flyers and newsletters distributed to parents, Triple P presence at community events, and website communications with parents and service providers. Implementation of Levels 2&3, Level 4, and Level 5 involves recruitment, training, and post-training support of a multidisciplinary array of service providers working in several settings, such as preschool and child-care (directors, teachers), kindergartens and elementary schools (guidance counselors, parent educators, kindergarten teachers), family support services (social workers, psychologists, and therapists in health and mental health centers and schools), community organizations serving parents, primary care (nurses, physicians, support personnel), and private-sector services. Although these settings stretch across the population, providers (particularly family support services and community organizations) served a greater preponderance of lower socioeconomic families.

Estimating Program Costs

Program costs involve the direct costs of employing the trainers who deliver the provider training and related costs as well as those that accrue to participants from attending training. While covered by a grant in this study, the direct costs would fall to public health care payors (e.g., a state mental health agency) in a real-world implementation. For this study, we have assumed that the health care payor would reimburse participants for any costs related to participation in training, such as time during which their office was closed while they attended sessions. (In some instances, providers would not be reimbursed. In those instances, the costs would be borne by employers,. Such costs might extend beyond health care to early childhood education and other sectors.)

This analysis includes all levels of the program, including the universal component. That component revolved around media strategies; the relevant inputs included the time of the communications manager as well as materials. Those materials had been developed for prior implementations, which reduced the costs for this study.

We estimated the dissemination costs of levels 2 through 4 in four steps. First, we estimated the costs of training service providers. Those costs primarily involved the salaries (and fringes) of training consultants who led training courses. In addition, the direct costs of

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training included materials (such as practitioner manuals and parenting videotapes) and other ancillary costs, such as travel costs, food, and facility costs. (Note that budgetary costs also included some administrative costs, such as the salary and office of the project administrator. Administrative staff involved tracked their time in order to allocate it between research and intervention-related activities. The former were excluded from the costs included here.) Rather than estimate the costs of all sessions delivered during the year, we worked with a sample of one dozen courses. In particular, we estimated costs for four Primary Care Triple P courses; three Standard Triple P courses; three Group Triple P courses; and two Enhanced Triple P courses. (In the case of the last, the sample represented all such courses provided.) While relatively small, this sample is likely representative because the training courses are standardized.

The second step in estimating the program costs involved the time participating providers spent in training-related activities. Such time could involve training on the weekends or time missed from work. We collected self reports of this information from providers at the completion of the final training session. We valued the time of providers using data from the Bureau of Labor Statistics (BLS) on earnings and salary for the professions participating in the training and including an estimate of fringes. Nearly all participants attended training during work hours. Participants reported that time spent reviewing materials and preparing for training occurred during the work day as well. For that reason, we valued this time using pre-tax wages including fringes. (If attendees had devoted significant amounts of time on the weekends or evenings, we would have used a measure of the value of their leisure time (post-tax wages). Those costs would not have counted as costs from the payor perspective that is our emphasis here (Foster, Shelton-Johnson, & Taylor, Forthcoming). Those costs, however, would have counted under a social perspective. As implemented here, the social and agency perspectives are equivalent.)

The third and fourth steps involved calculating the number of trained providers required to serve the target population. For the third step, we relied on estimates provided by the NICE assessment referenced above. Those figures begin with an estimate that 9% of the population is at serious risk of conduct disorder. The remaining 91% are at lower risk, and of these 33% are assigned to Level 2–3 Primary Care Triple P. Among those most at risk, 75% were assigned to Level 4 Group Triple P; and 25%, to Level 4 Standard. 3% of the last group received Level 5 Enhanced Triple P as well (in addition to Level 4 Standard) (Mihalopoulos, Sanders, Turner, Murphy-Brennan, & Carter, 2007; Sanders, Markie-Dadds, Rinaldis, Firman, & Baig, 2007). In the final step, we obtained data from providers on the number of families to whom they provided Triple P services during a six-month period. We then doubled that amount to estimate the number of contacts over a year. (This figure is likely conservative. The six-month figure includes the initial month following training. During that month, delivery of Triple P services was likely low.) Given the distribution of families across program levels, this calculation allowed us to determine the number of providers for which training was required. For example, if a Level 4 Standard Triple P provider would deliver services to 39 families and 2,250 of such families needed those services, then roughly 58 providers would have to be trained. As discussed below, such training averaged roughly 13 individuals per course, which implies that no more than 5 courses would be required (capping each course at 20 trainees). Using the budget costs

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figures and the reports on professional time, we then calculated the aggregate costs of treating the population.

RESULTS

The Costs of Universal Intervention

The primary inputs into the media campaign involved the salary of and office space for the media consultants; two mass mailings and a parent newsletter. The materials themselves had been created earlier as part of ongoing intervention development and delivery.

The required information on the amounts and costs of inputs used (such as postage) were available on financial records for the program. (We estimated the costs of office space using the difference between the on-campus and off-campus overhead rates. This difference represents the university's estimate of the costs of space and utilities for university research projects. This rate was applied to the salary and fringe benefits of project personnel with project office space. For individuals involved in research and intervention delivery, those costs were divided in the same proportion as their time.) These costs totaled $74,580. On a per child basis, they represent *less than $1.00* (75 cents) for each of the 100,000 families with at least one child under eight.

The Costs of Training Providers for Levels 2, 3 and 4

First, we estimate the costs of training service providers. Information on the salaries (and fringes) of the training consultants and other materials is available from program expenditure reports. Table 2 describes the direct costs of training, which include trainer time, facilities, and materials such as practitioner manuals. These estimates include all training days and were spread roughly over 11 to 13 participants per training course.

These costs are broken down by training level and program input. One can see that those costs are quite modest, ranging from $660 to $740 per provider. Recruitment costs were estimated by program staff as roughly 15 hours per course. Program staff reported that ongoing (post-training) consultation involved roughly an equivalent amount of time. Administrative support involved the time of staff working solely on the intervention; other personnel included the project manager, whose time was divided into intervention support time and research time (the latter being excluded). Some of the intervention components varied across training courses (e.g., travel costs), but the figures presented here represent an average across trainings sampled. The full set of training-specific estimates is available from the authors.

Second, we estimated the costs of staff time for providers attending the training sessions. As discussed above, we estimated those costs using self-reports of time use and Bureau of Labor Statistics data on earnings and fringes. (Participants also reported any additional out-of-pocket costs such as transportation and child care, but those costs were minimal, less than $1.00 per participant on average.)

One can see that these costs were non-trivial and represented 50% or more of the direct costs of training. Including them raised the overall costs of training a provider to between $1,200

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and $1,600. Note that the time costs varied across training types because participants varied both in their salaries (e.g., nurses versus social workers) as well as in the amount of time they devoted to training outside of formal training sessions.

The third step involved calculating the number of providers required to serve the hypothetical population of 100,000 families. These calculations were based on Census Bureau data (on the number of children per family) as well as information used in NICE calculations (described above). In the fourth step, we obtained data from providers on the number of families to whom they provided Triple P services of a six-month period. As discussed, that figure was doubled to estimate the number of contacts over a year.

Table 4 summarizes these tabulations. Given the number of contacts per provider (the penultimate column), one can estimate the desired number of providers required to serve the targeted children, 1,703. Of these, the vast majority (1,430) would be trained for Primary Care (Level 2–3) Triple P. The distribution of training courses and providers reflected the fact that most children do not have serious problems and that many parents need only brief and flexible consultation typical of Primary Care Triple P.

Finally, as indicated in Table 5, the costs of training these providers totaled $2.2 million dollars. On a per family basis, this figure represented $22. Assuming 1.86 children per family (U.S. Bureau of the Census, 2004), this figure represents $11.74 per child ages 0 to 12 in the community.

How Large are These Costs Relative to the Costs of Abuse and Neglect?

Corso and Lutker estimate the taxpayer costs of abuse and neglect total nearly $100,000 per child (Corso & Lutzker, 2006). This estimate includes medical costs as well as non-medical costs such as the costs of police investigation. While this estimate is the middle of three estimates provided, it is conservative in that it does not capture broader social costs, such as pain and suffering, nor the longer-term public costs such as future use of mental health services. Given roughly 1.86 children per family, the costs per family per case of abuse and neglect are nearly $200,000.

These figures imply that the costs of the Triple P program could be recovered in a single year by reducing the number of families where abuse and neglect occur in our hypothetical population by just 10 families (out of 100,000 total). Given that the baseline rate of abuse and neglect in the 18 counties was roughly 100 per 100,000 families, the needed reduction would represent a 10% reduction in overall abuse and neglect. This calculation is conservative in that the actual reduction in cases could occur over several years. This reduction would have to be generated by the program over and above any effects generated by pre-existing programs.

DISCUSSION

These results suggest that the costs of building a public health infrastructure for improving parenting throughout a community are rather modest. On a per-child basis, these costs are less than $12 per child. For a relatively modest investment, the core infrastructure

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can be created to implement an evidence-based, public health intervention such as Triple P. Given the extremely high societal costs of child and family problems (and the strong evidence base for the Triple P program), such an investment is likely to be cost effective. The cost-effectiveness of the intervention may be even more likely in light of the public health approach examined here. The program's components may work synergistically. The universal component of the intervention may serve as a foundation for the selected components, and the effect of these interventions on high-risk children throughout the community may reinforce the benefits received by a single targeted child.[1]

It should also be noted that because the universal component of the intervention is meant to serve multiple functions, it is not possible to tease out the direct effects of this component on parenting. Universal Triple P is intended to provide parents with parenting tips and strategies, but it is also intended to de-stigmatize the seeking of parenting information, empower parents to engage in self-regulation and the solving of child challenges, and validate positive parenting concepts for parents and providers alike. Nonetheless, there is some emerging evidence that Universal Triple P in its own right can have beneficial impact on parenting and child functioning (Sanders & Calam, 2006; Sanders, Montgomery, & Brechman-Toussaint, 2000).

This study does provide important insights into the distribution of the costs of a public health infrastructure for better parenting. Our figures reveal that participating providers and their employers bear a substantial proportion of those costs. For example, the time costs borne by providers represent 43% of the total costs of training providers to delivery primary care Triple P. A successful implementation of the program requires either a means to reimburse providers or a commitment on the part of host organizations and agencies to bear those costs.

The present study fills an important gap in the literature on parenting intervention. The field needs to know the potential cost for a relatively new strategy, namely the population-wide dissemination of multi-level parenting and family interventions. One implicit assumption has been that multi-level parenting interventions including a universal component are likely to be too costly, leading some to advocate interventions that include only those most at-risk. Our figures suggest that a public health approach may be affordable as well as cost-effective. It is important to note that the Triple P system is not a purely universal program but rather a blended approach combining universal and targeted components.

The costs of program delivery

The calculation presented here do not include the costs of actually delivering parenting programs. The magnitude of those costs would depend on whether and how providers are able to fold Triple P activities into their regular routine. To the extent providers do so, the marginal costs of delivering Triple P might be rather low. In that case, the marginal costs

[1]One reviewer noted that the costs of the program might be higher in another location. It is true that the costs reported here are for South Carolina while the costs of abuse and neglect are for other communities. For that reason, one might want to inflate all sets of figures to nationwide figures. In the case of the program costs, Consumer Price Index data suggest that prices in Columbia, South Carolina, are 10% below the national average. For that reason, one might inflate program costs should be inflated by 10%. A similar adjustment should be made to the benefit figures.

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of delivering the program would be rather low, including only the necessary materials (e.g., parent tip sheets).

Two features of the program make it likely that these costs are low. First, a strength of the program is that it provides a means of brief and flexible consultation (Levels 2 and 3). Triple P is one of the few if not the only evidence-based parenting programs that has this brief option built into its framework.

Second, the pool of service providers includes only those who actually have in their job activities the task of serving parents and families. Those providers already spend time discussing children's behavior problems with parents (Briggs-Gowan, Horwitz, Schwab-Stone, Leventhal, & Leaf, 2000; Burns et al., 1995; Williams, Klinepeter, Palmes, Pulley, & Foy, 2004). Triple P may merely provide them with a more efficient means of delivering an evidence-based program. In many instances, those providers—in the absence of Triple P—may be using programs that are not evidence-based, programs that may involve more of their time. Other evidence-based programs with parents that take as much time or more than the delivery of Triple P.

However, on the other hand, the universal program may draw new families into services or lead other families to raise parenting concerns. These families might be seriously troubled and not have received services in the past. In that instance, no consultation costs would be experienced in the absence of Triple P; in that case, the marginal costs of delivering the program would have to be positive.

Presumably, those families would now benefit from the program. Whether and how those benefits offset any program delivery costs is an area for future research. A full economic analysis would quantify program benefits for the families actually served in the Triple P System Population Trial. The results of those analyses will determine whether expenditures on Triple P represent a good investment of public funds.

How large are the program benefits?

Our informal calculations suggest that a modest reduction in abuse and neglect could justify the costs of starting the program. Our estimate of program benefits is conservative. For example, there may be benefits of the intervention to other children in the family, especially those who are close in age but outside of the zero to 8 age range. Experience suggests that the majority of trained service providers continue to use Triple P in their work with families, sustaining and expanding program impact beyond the year following training. As more and more children are exposed to the program, the costs per child for the training of providers drops. Additionally, the calculation of training costs included not only the cost of the training itself but also the cost of staff time for those receiving the training.

The potential benefits in terms of cost recovery are not restricted to reduction of child abuse and neglect. Public health dissemination of Triple P also can reduce the incidence of childhood conduct disorder without added programming (Mihalopoulos et al., in press). An inherent advantage of Triple P as a population approach is the dual targeting for prevention of child maltreatment and child behavioral/emotional problems.

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Table 1.

Cost for Universal Triple P (Level 1)

Input	Expenditure
Media manager - salary and fringes	$ 47,120.00
Media manager - office	$ 11,780.00
Mass mailings	$ 7,423.59
Parent newsletter	$ 8,256.75
	$ 74,580.34

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Table 2.

Direct Professional Training Costs, By Program Level and Ingredient

	Triple P Level			
	Levels 2 & 3 Primary Care	**Level 4 Group**	**Level 4 Standard**	**Level 5 Enhanced**
Number of courses included	4	3	3	2
Average Professionals Trained	13.25	11.00	12.67	11.50
Recruitment				
Salary (15 hours)	382.50	382.50	382.50	382.50
Fringes	91.80	91.80	91.80	91.80
Travel + calls				
Total	474.30	474.30	474.30	474.30
Input	**First Part of Training**			
Trainer Time—Delivery				
Salary	$ 408	$ 612	$ 612	$ 408
Fringes	$ 98	$ 147	$ 147	$ 98
Total	$ 506	$ 759	$ 759	$ 506
Practitioner kits	$ 1,193	$ 990	$ 1,140	$ 1,035
Booklets and Tip Sheets	$ 398	na	na	na
Videos	$ 1,418	$ 175	$ 1,155	$ 450
Participant Notes	$ 111	$ 70	$ 126	$ 45
Facilities cost	$ 138	$ 159	$ 169	$ 169
Food	$ 557	$ 499	$ 697	$ 428
Trainer travel	$ 114	$ 225	$ 299	$ 146
Other travel	$ 17	$ 145	$ 18	$ 23
Total	$ 4,450	$ 3,022	$ 4,363	$ 2,801
	Second Part of Training			
Trainer Time				
Salary	$ 408	$ 408	$ 408	$ 408
Fringes	$ 98	$ 98	$ 98	$ 98
Total	$ 506	$ 506	$ 506	$ 506
Facilities cost	$ 87	$ 80	$ 86	$ 80
Food	$ 235	$ 159	$ 360	$ 146
Trainer travel	$ 167	$ 210	$ 121	$ 133
Other Travel	na	$ 4	$ 15	na
Total	$ 995	$ 954	$ 1,089	$ 865
Recruitment	$ 474	$ 474	$ 474	$ 474
Administrative support	$ 2,979	$ 2,979	$ 2,979	$ 2,979
Ongoing consultation	$ 474	$ 474	$ 474	$ 474
	All			
Total	$ 9,373	$ 7,904	$ 9,379	$ 7,593
Per professional	$ 707	$ 719	$ 740	$ 660

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Table 3.

Costs to Participants / Grand Total

	Time Costs of Participants				
	Direct (From table 2)	**Attending Training**	**Preparation**	**Total**	**Grand Total**
Primary Care	$ 707	$ 500	$ 32	$ 532	$ 1,239
L4 Group	$ 719	$ 729	$ 44	$ 769	$ 1,488
L4 Standard	$ 740	$ 800	$ 57	$ 857	$ 1,598
L5 Enhanced	$ 660	$ 587	$ 18	$ 605	$ 1,266

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Table 4.

Estimated Number of Providers Trained to Serve Hypothetical Population

	Number of Families Targeted						
	More Serious		Less Serious		Total		
	%	No.	%	No.	No	Contacts / Provider	Desired Providers
Families		9,000		91,000	100,000		
Primary Care Triple P	0%	0	***33%***	30,030	30,030	21	1,430
Group Triple P	**75%**	6,750	0%	0	6,750	32	211
Standard Triple P	**25%**	2,250	0%	0	2,250	39	58
Enhanced Triple P	**3%**	270	0%	0	270	62	4
Total		9,270		30,030	39,300		1,703

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Table 5.

Total Costs of Training Providers to Serve Hypothetical Population

Families	**Desired Providers**	**Direct Costs**	**Costs to Participants**	**Grand Total**
Level 2–3 primary care	1,430	$ 707	$ 532	$ 1,772,275
Level 4 group	211	$ 719	$ 769	$ 313,861
Level 4 standard	58	$ 740	$ 857	$ 92,164
Level 5	4	$ 660	$ 605	$ 5,512
Total	1,703			$ 2,183,812