A Life Care Planner and Economist's Perspective on Catastrophic Injury: Developing and Valuing a Life Care Plan for Litigation

By Penelope Caragonne, Ph.D. & Robert Male, Ph.D.

INTRODUCTION

The Life Care Plan is becoming a common element in tort litigation involving severe to catastrophic injury and disability. In this paper, the terms used to describe the degree of disability correspond with the "Disability Profiling Scale" presented by Kenneth Anchor and Mary Saunders (1996). When a Life Care Plan (LCP) is needed for litigation, it is usually because someone has become severely to catastrophically disabled as a result of an alleged harmful act of another. If a LCP is developed for litigation, there are normally two experts involved in the process, a life care planner (henceforth, planner) to develop the plan, and an economic expert (henceforth, valuator) to project the value of the costs over time and determine the plan's lump sum present value. Each of these experts brings a different set of professional skills, knowledge, training, experience, and values to the task. This "professional set" of each expert produces corresponding perspectives and expectations about the tasks, responsibilities, and goals for her or himself, the other experts, and the process. In addition, the mandates and structure superimposed on this process by the legal system often necessitates that the experts "adapt" their professional set to function acceptably within it.

In this paper, the authors examine the nature of the LCP development and valuation process for litigation, and the essential elements that must not be lost if the goals of the experts and the litigation process are to be met. This examination will be conducted through discussion of the following focal

issues: differences in professional perspectives and expectations; the roles of the experts in litigation and the characteristics of a good LCP; the effects of "set based" assumptions along with the significant process issues of "necessity and sufficiency"; the nature of the working relationship and responsibilities of the experts; and the guidelines and standards for the products developed by the experts. An abstracted (condensed) example LCP and valuation are included to illustrate the processes and results. The paper ends with a brief summary perspective on the issues presented.

DIFFERENCES IN PROFESSIONAL PERSPECTIVES AND EXPECTATIONS

In the context of litigation, the LCP can be described as the overall service and care plan designed to sufficiently provide the services and commodities necessary to achieve optimal outcomes as related to severe or catastrophic disability resulting from an injurious event. Stated operationally, a LCP is developed so that the future health and welfare needs of the injured party can be reasonably determined and funded.

Experts bring a perspective and methodological bias to each task that is grounded in their skills, knowledge, training, experience, and values. This "professional set" determines how each expert views his or her role and responsibilities for the task, and how task completion is conducted. The planner is the person charged with assembling a comprehensive diagram of the necessary and sufficient services and commodities that will optimize the desired outcomes of the plan. The task of the valuator is to reasonably and accurately determine the monetary amounts needed to safely and securely provide sufficient and timely funding of the plan's prescribed costs for the full duration of the plan (usually the life expectancy of the injured party).

In this process, the concept of necessity relates to the need for the service or commodity, and the frequency and duration of the need over time. The associated concept of sufficiency relates to standards of quality, dependability, and derived utility of the necessary service or commodity.

Persons developing long-term LCP's for litigation are usually initiated into the process from a variety of professional backgrounds and disciplines such as nursing, social work, rehabilitation

counseling, medicine, and psychology. Different types of education, training, agency affiliation, and/or work background can promote dissimilar professional sets in those working as planners in a litigation context. There are substantial differences between working as a social worker/case manager in a private agency system versus a public setting. Also, direct providers of care in medical or sub-acute settings develop different skills and perspectives than those working as counselors in vocational rehabilitation settings, case managers for insurance companies, or as teachers.

Similarly, the valuator can have a wide variety of background and training. Valuators typically have backgrounds from such disciplines as economics, finance, accounting, business, law, and/or actuarial science. In addition, a valuator may have a work history including university academics, work for a private or public company (e.g. insurance company, hospital, government agency), and/or self-employment. Thus, it is not surprising to find that different valuators will often bring a different set of perspectives and expectations to the task of valuing a LCP.

The LCP development and valuation process in litigation is governed by a set of rules and policies that can be simultaneously general and specific. In general, the litigation process is designed to facilitate the positive resolution of social inequities. In civil tort actions, a limitation on the legal system's ability to satisfactorily resolve "determined" inequities is that most often the only "remedy" available is monetary compensation to the harmed party. This limitation has increased the importance of the LCP in the litigation process and the need for the LCP to be accurate, thorough, and correctly valued.

Assuming that both the planner and valuator are competent and trying their best to do a good job, they still must contend with the constraints placed upon their work by the legal system. It may be said that the planner's primary goals are for accuracy and social efficiency, while the valuator's primary goals are for accuracy and economic efficiency. Though the goals and professional sets of the experts are not necessarily mutually exclusive, their correspondingly different perspectives and methodologies can be the source of misunderstanding, and can negatively effect satisfactory task completion. Further, when the constraints of the legal system cause either or both of the experts to

"diverge" from their fundamental professional set, the potential for misunderstanding and goal divergence correspondingly increases.

LCP's developed for litigation have different requirements than plans completed for the public or private sector not involving litigation. The mandates are different; the customer is different; and purposes for planning are different, as are the functions performed. Planning with a goal of cost management (economic efficiency) is different than planning with advocacy and systems change as a goal (social efficiency). Because of this, the planner and the valuator will sometimes view the minimum standards and characteristics of what constitutes a "good" LCP differently. The planner determines the resources (goods and services) needed by the injured person. The valuator determines the money needed now and/or in the future to pay for the resources identified (and usually priced) by the planner.

The issues of resource necessity, cost, frequency, timing, duration, and offsets are concerns of both experts. In order for either (or both) expert's expectations and goals to be met, they must understand and respect each other's role and function in the process, as well as understanding the constraints imposed upon their functioning by the system within which they are working.

THE ROLES OF THE EXPERTS AND THE CHARACTERISTICS OF A GOOD LCP

The Life Care Planner

The primary role of the planner is to know the characteristics of a good LCP for litigation, and to develop a plan consistent with those characteristics. The planner must develop a LCP that presents all of the projected necessary resources of the treatment plan. The plan will be considered accurate (by the planner) when he or she believes that the stated resources will provide the injured party the type, frequency, and duration of services and commodities needed for optimum remedy. The quality and dependability of the plan elements (sufficiency) are considered as important as the issues of necessity. The planner works to develop a LCP that meets all of these requirements in order to achieve the primary goal of social efficiency, and secondarily economic efficiency.

A competent and diligent planner will ideally provide the valuator with a LCP where the foundation for the necessity and sufficiency of all itemized resources is clearly and solidly established. The valuation of a well-designed and documented LCP is a relatively straightforward process by an experienced and competent valuator. When satisfactory (in the view of the valuator) foundation and documentation is not provided for some or all of the LCP items, many questions arise during the valuation process. Questions about specific medical services and commodities most often focus on issues of necessity (need, frequency, duration); while questions relating to other services and commodities (e.g. transportation, housing, educational services, attendant services, other nonmedical services) often involve both necessity and sufficiency (quality, dependability, derived utility, and possible offsets). The farther removed an item is from specified medical necessity, the more likely a diligent valuator is to raise questions or concerns about its necessity or sufficiency.

The characteristics of a good LCP, from the planner's professional set, are as follows:

- 1. The planning methodology is reliable and valid;
- 2. The methodology adopted by the planner can be proven to have wide acceptance within the field of life care planning and in other fields where a long-term planning model is used;
- 3. The planner collects data sufficient to form a valid foundation for conclusions offered;
- 4. The foundations for all opinions stated are clearly and observably apparent, and rely on more than just the planner's work experience;
- 5. Data base use is accompanied by the capability to describe the underpinnings of the data base, how the database was used, the limitations of the database, and means through which the findings drawn from the database were independently verified;
- Conclusions regarding consumer functioning are consistent with available documents describing the person;
- 7. Depictions of consumer need are based on current and reliable information that can be confirmed through multiple sources;
- 8. Conclusions regarding barriers to functioning are consistent with those of treating specialists, educators, and therapists;
- 9. Recommendations address deficits in areas of independent living affected, e.g. health, safety,

activities of daily living, socialization, recreation and leisure, community activities, religion, education, and employment;

- Resources are not invasive, do not isolate the individual, do not disable the individual, do not restrict the individual's rights, and support the greatest level of independence the individual can achieve in all domains;
- Resources are introduced, terminated, or changed based on consultation with physicians or other specialists that establishes, with reasonable medical probability, diminution of independent functioning as the individual ages;
- 12. Resource costs are not included when future need, acquisition, and times for purchase cannot be established with reasonable medical probability;
- 13. Resources are congruent with preferences, values, and lifestyle of the person for whom the plan is developed;
- 14. Resources are congruent with the observations and conclusions offered by treating providers and other consulting specialists;
- 15. Resource costs are accurate, describe the resources accurately, are itemized, and portray all costs attached for services or items;
- 16. Resources prescribed are within the education, experience, and training of the planner to identify;
- 17. If the planner does not have required expertise, needs for a specific resource and/or frequency of contact are established through consultation with a specialist, or through researching nationally established specialty guidelines governing use of this resource;
- 18. The planner does not overlap or duplicate resources;
- 19. The planner includes all resources required by the individual;
- 20. The planner does not include a resource the individual does not need;
- 21. The planner does not provide offsets for the cost of selected resources in the plan. However, if possible offsets are presented, this framework is applied to all resources in the plan;
- 22. The plan includes a strategy by which certain resources can be identified, located, secured, and retained by the individual;
- 23. The planner includes sufficient quantities of a resource to be effective for the individual;
- 24. The planner has the plan reviewed by relevant providers and obtains concurrence for

recommendations contained within the plan;

- 25. The plan includes a strategy/service designed to assure lifetime resource accessibility, continuity, coordination, accountability, and evaluation; and
- 26. The plan can be evaluated for its adherence to, and deviation from, established standards for long-term or life care planning.

The Valuator

The valuator primarily views the LCP as a stream (or streams) of financial resources that must "accurately" portray the monetary amounts necessary to appropriately fund the plan to its projected termination point. Here again, the issues of cost, frequency, timing, duration, and offsets influence the perception of accuracy from the valuator's perspective. The valuator's primary goals for economic efficiency are achieved through focusing on the necessity and sufficiency for the costs in the LCP.

A well-designed and documented LCP allows the valuator to focus on issues primarily within his or her expertise, such as growth and interest rates, and appropriate methodologies for projecting streams of costs into the future and discounting them to present value. The valuator has a natural concern about both the necessity and sufficiency of all of the costs in the plan since these ultimately determine the reasonableness and accuracy of the valuation.

There is also one issue of importance to the valuation process that is included in the LCP only indirectly as a cost. The projected life expectancy, as well as issues related to aging and progression of infirmity or disease, relate to the concepts of necessity and duration. Sometimes, the planner does not address these issues in a comprehensive manner, such as not specifying when a cost should be terminated. A valuator is not usually in a position to determine how much the injured person's life expectancy may have been shortened, or to project when a particular service or commodity may be terminated as a result of aging or the progression of disability. One mechanism that valuators can employ to deal with such issues is to run their analysis out to normal (average pre-disability) life expectancy and compute cumulative total cost for each successive year. This allows the trier of fact

(e.g. court, arbitrator, etc.) to determine the "most reasonable or likely" end point for the cost stream. There is increased risk of under-funding the LCP if a shorter than normal life expectancy is used, and valuators are not usually in a good position to assign this risk to the plaintiff by simply truncating the valuation analysis at an "estimated" reduced life expectancy.

As suggested above, the LCP items where the valuator is apt to have the most questions and possibly the greatest potential input are those generally considered to be non-medical or "quasi-medical." From the world of possible "other" items, the costs related to attendant care, specified transportation, and housing modifications or "new" housing seem to receive the greatest attention by valuators. The reasons that valuators often have questions about the necessity or sufficiency of these types of items relates to their often high cost, and the possible value of applicable "offsets". This is another illustration of how a well-documented and substantiated LCP from the planner will facilitate the valuation process.

The characteristics of a good (valued) LCP, from the valuator's professional set, are as follows:

- 1. An accurate portrayal of all necessary and sufficient costs in terms of both future and present value is presented;
- 2. Support is provided for the necessity and sufficiency of each resource/cost in the plan;
- 3. Documentation is provided for data sources used to substantiate the cost of each item;
- Data base use is accompanied by the capability to describe the underpinnings of the data base, how it was used, its limitations, and the means through which the findings drawn from the database were independently verified;
- 5. The duration (start and end) for each resource is shown in the plan;
- 6. Appropriate growth rates are used for each type of resource/cost;
- 7. An appropriate interest rate(s) is used for the present value analysis;
- 8. Possible offsets have been addressed;
- 9. Marginal (possible or expected) costs have been addressed; and
- 10. It is based upon valid and reliable data and methodology that is consistent with accepted practice and legal mandates.

THE "WORKING" RELATIONSHIP

Planners and valuators working in litigation make many assumptions about their roles and responsibilities and those of the other experts. Both also make assumptions about the correctness (reliability and validity) of underlying methods and processes used by the other and generally tend to regard their work as separate from, and "unaffected" by, any processes used by the other. Both of these factors contribute to, rather than diminish, the potential for difficulty in the working relationship between the experts.

Most, if not all, of the discussions related to the valuation of LCP's in the forensic economic and related literature (see: Bagwell, Harrell & Willingham 1999, Feldman & Egge 1995, Raymond 1998, Slesnick & Thornton 1994, Thornton & Slesnick 1997, Tinari 1995) have focused upon the issues of life expectancy estimation, the appropriateness of offsets, or the correct valuation of "other" costs. Very little attention has been given to the nature of the overall process and how litigation "structures" the work of the planner and valuator.

A planner or valuator (or both) may sometimes believe that they have more expertise and understanding about the nature of certain resources/costs and how they must be integrated into the valuation process. Sometimes this may be an accurate belief. However, if the planner has comprehensively presented and documented the necessity and sufficiency of all costs, it is often very clear to the valuator just now much expertise and input he or she must apply in determining the "most reasonable" projection of such a cost over time.

An example of such input may involve the periodic purchase and modification of a van to transport a plaintiff that is wheelchair bound. The planner may best determine the cost of the van and the necessary modifications. The valuator on the other hand may have the "best" expertise to determine and value the most suitable offset to apply to this periodic cost, should an offset be appropriate. The valuator likely has experience with a number of applicable data sets, such as consulting the Consumer Expenditure Survey (Bureau of Labor Statistics, U.S. Department of Labor) for demographically appropriate average annual expenditures for new vehicles, and can determine what

best represents the most reasonable offset for the cost of a modified van.

The completion of open or incomplete costs, or adjustments made to costs in a LCP should always be thoroughly reviewed and "validated" for all aspects of necessity and sufficiency with the planner (when possible) and/or the hiring attorney (when not possible with the planner).

PRODUCT STANDARDS

The desired end product of the work done by the planner and valuator is a reasonable and accurate LCP and its valuation. As noted above, experts tend to operationalize standards for necessity, sufficiency, reasonableness, and accuracy that emanate from their education, training, and experience. If the LCP for litigation is seen as being developed through a single process with two stages, then it is useful for the attorneys and experts to have a common or shared set of standards for the LCP and its valuation. A useful standard for necessity and accuracy could be that the conclusions must relate to the process goals in a valid and reliable manner. A useful standard for sufficiency and reasonableness could be that conclusions must be based upon the conscientious application of accepted methodology.

Such "common ground" standards communicated and applied early in the process can facilitate effective and efficient LCP development and valuation for litigation.

ISSUES RELATED TO RESPONSIBILITIES AND THE WORKING RELATIONSHIP

Responsibility should be assigned (agreed upon) for the determination of possible offsets according to the knowledge and skill set of the experts (e.g. the planner for speech therapy, and possibly the valuator for transportation costs). Necessity and sufficiency standards are important factors to consider when determining possible offsets.

If either or both experts lack sufficient knowledge or skill to reliably or validly determine a particular type of cost or the characteristics of that cost (e.g. growth rate), then this task should

be undertaken by someone so qualified (e.g. assistive technologies, experimental medicines, home remodel and maintenance). When possible there should be prior discussion and understanding of possible areas of overlap of expert assignment (e.g. household services and attendant care) to avoid unnecessary work and prevent possible "double-dipping."

Each expert should make every effort to understand and respect the other expert's work and the professional set underlying that work. Lack of understanding can foster conflict and reduce accuracy and goal attainment when working "on the same side" in litigation. It can also reduce the credibility and positive contribution of an expert when untested assumptions and lack of understanding are shown to be the only foundation for criticism of an opposing expert's work.

There should be a clear understanding and agreement of responsibility for responding to pressure for a certain "slant or end product" for their work (e.g. a Cadillac vs. a Yugo plan). The work of experts should not be influenced by the "side" they are on or the attorney they are working for, and only as little as necessitated by the legal system. When on the same side, if either expert's work is discredited or thrown out, the other's sometimes goes with it.

CASE EXAMPLE

The following LCP and its valuation are included as an example of how the process described above can work in practice. Narrative sections of the LCP, the valuation presentation, and the documentation of sources have been condensed, abstracted, or left out due to considerations for length. Periodically the reader is referred back to the text to illustrate continuity with the process as described above.

Normally, the planner is engaged first to develop the LCP and the corresponding Cost Chart (Table 1 is an example of a Cost Chart). The Cost Chart section of the LCP is used by the valuator to project the funding required to support the LCP over time – usually as an annual monetary amount.

EXAMPLE LCP DEVELOPMENT FOR LITIGATION

Brief Case Summary - from LCP

Jimmy Jones (henceforth JJ) is a young man of 7 years who was severely burned in a home fire. As a result of his burns, JJ's restrictions include limited ability to grasp, lift, and use his arms, wrists, and hands. The left arm was damaged more than the right with burns so severe to JJ's left forearm and hand that his fingers and thumb were completely burned away. His legs do not fully extend and he cannot bear weight on his right leg resulting in a very unsteady gait. His extremities are contracted, as are aspects of his face, neck and shoulders. Severe cosmetic deficits are apparent. His nose, portions of his mouth, and right ear are burned off. He cannot fully open his mouth. He has no ability to regulate his body temperature. His lungs are scarred and he has limited pulmonary capacity. His scalp is without hair and 60% of his body is marked by burn scars or scars from having tissue harvested during repeated surgeries.

At the point of life care plan development (August 1998), JJ had received all of his acute and sub-acute care through Shriners Hospital, and was often hospitalized for extensive periods of time at a geographically distant regional Shriners facility. He had received limited follow-up in the community for burn management. He had received limited psychological counseling. Also, counseling services had not been made available to the family, save for those periods of time at Shriners. JJ had no assistive technology devices to help him with further independence, nor had he received consistent services from physical therapy, occupational therapy, and nutritional consultants. He was severely underweight.

JJ was in the first grade, with failing marks. He had repeated the first grade twice. Tutoring support was not provided and he was behind two grade levels. No remedial services had been offered by the local educational system and JJ had not been classified as a student in need of tutoring or related Resource Room support. He had no regular private physician and had been seen at a general public health clinic for medical needs.

Methods Used to Develop Life Care Plan

The methodology utilized by the planner is one that has wide acceptance in public sector settings, using a case management approach to identify, plan, obtain, and coordinate services for persons with multiple disabilities. The individual and systemic outcomes derived from this approach are well documented in available social work, organizational theory, and public administration literature dating from the 1960's to the present (see: Austin 1983, Beatrice 1979, Caragonne 1982, Caragonne 1980, DeWitt 1977, Faubion & Andrew 2000, Horton, Carr, & Corcoran 1976, Quinn, Prybylo, & Pannone 1999, Service Integration 1991, Slack & McEwen 2000).

The stages depicted in this plan follow the framework used by the planner in previous federally funded national studies of the case management function conducted for the Office of Human Development Services, Washington, DC. (Service Integration 1991). The stages of plan development followed in this plan conform to those developed and disseminated by Intelicus, a nationally based training entity that has trained over 450 case managers nationally (Intelicus 1996-2000). The stages portrayed are also consistent with those depicted in the national certification examination to obtain the Certification of Life Care Planner through the Commission on Disability Examiner Certification (CDEC 1997-2000). As well, documented benefits from the use of a case management planning approach appear in private sector publications developed by the insurance industry (Damman & Patel 1999, Isom 1998, Neale 2000, Ramos 1999, Vallon, Foti, Langman-Dorwart & Gatti 1997).

All available text describing JJ before and after the burn injury was requested (see above: Characteristics of a Good Life Care Plan, Items 1 and 2). Consistent attempts were made to develop a wide base of information as a reliable foundation from which conclusions could later be drawn (see above: Characteristics of a Good Life Care Plan, Items 3 and 4). The following records were received and reviewed: public health clinic records developed prior to the fire, home health and specialty records dating from the fire, current educational records. Shriners Hospital records were provided but were not complete. They were later reviewed during a oneday site visit and missing records were copied and provided to the planner.

After review of the records, a literature search was conducted to identify the long-term outcomes from severe burns relative to medical conditions, cognitive damage, emotional side effects, and future vocational outcomes in order to guide the information gathering and planning processes. The attorney was requested to secure current baseline data on JJ's functioning from a cognitive standpoint as well as from a clinical standpoint. The services of a counseling psychologist were obtained and neuropsychological testing was completed to determine the scope and range of any factors affecting cognitive and psychological functioning. Cognitive deficits identified included the following: decreased ability to process information, limited attentional skills, impulsivity, and deficits in the ability to problem-solve, plan, and organize. Minimal deficits were found in short-term memory and the capability to process sounds. JJ's hearing was excellent, but the ability to comprehend sound was deficient in: the ability to filter out ambient noise, the ability to understand partial conversations or spoken directions, and the ability to comprehend different sounds simultaneously.

Consultation from a specialist in vocational rehabilitation outcomes was obtained as well as the expertise of the expert-consulting surgeon in the case. These activities were completed to obtain pertinent information beyond the expertise, training, and background of the planner, in addition to enabling the formation of a foundation to establish the presence or absence of damage in these areas, and to support recommendations made later in these areas (see above: Characteristics of a Good Life Care Plan, Items 6 - 8).

A site visit was conducted, and all provider staff (including specialty staff) having direct treatment or evaluative experience with JJ was interviewed. These interviews were completed to obtain the full range of disciplinary perspectives on past needs, current needs, and long-term projected needs from all persons having direct treatment history with JJ and his family. These persons included the medical director, surgery staff, physical therapy, occupational therapy, social work, counseling staff, nutritional staff, and nursing staff. A home visit was conducted to observe JJ and the family in the home surroundings, interview his parents on their perceptions of

his overall needs, document the presence of unsafe or inaccessible areas of the home, gather information on previous services from other providers, and collect information on the range of resources available to JJ. Interviews were also completed on-site with the grandparents. Detailed telephone interviews were completed with the local school administrator, JJ's classroom teacher, and the nursing staff at the school. The case was reviewed with an expert specializing in reconstructive and cosmetic surgery. Interviews were also completed with local program staff providing community-based services to persons with disability in JJ's home city. Rehabilitation technology services were used to provide validation for identified technology resources needs. A list of potential surgeries was requested, along with the procedure codes for the surgeries to obtain cost information. Interviews were completed with the consulting surgeon and Shriners' staff to determine post-surgery follow-up frequency and range of services and supplies required. Alternative recreational resources were identified and interviewed for their capability to provide services to JJ, and the outcomes they had observed with children as severely burned.

Conclusions later drawn about side effects from JJ's severe burns were consistent with those portrayed in available text documents or obtained through specialist interviews. Dates for introduction, termination, and modification of needed resources for JJ were obtained from specialty providers in each area as well as in areas of expertise possessed by the planner due to background, training, and experience. Provider conclusions were secured on the appropriate duration for a given resource, as well as all costs related to use and sufficient quantity of the resource. No resource or service was recommended in the plan for which need had not been specifically established through assessment, service delivery records, provider interview, and provider concurrence (see above: Characteristics of a Good Life Care Plan, Items 6, 9 - 11, 14, 16 - 17, 19, 20, 23). Recommendations were developed such that services to JJ would be provided in the least restrictive environment possible, with resources that did not infringe on his privacy or dignity, and did not unnecessarily segregate him into a more restrictive facility or community setting than necessary. During the home visit, attention had been addressed to determining the values and preferences of the family members toward service provision (see above: Characteristics of a Good Life Care Plan, Items 9,10,13).

During and after development of recommendations (with input from both treating providers and specialty consultants), data were collected on the current costs of services required. Based on the planner's research and service delivery experience in case management across many service settings, a level of case management sufficient to coordinate all resources for JJ was assigned and priced according to the local market (see above: Characteristics of a Good Life Care Plan, Item 22). Cost figures for all services were gathered through either direct contact with the service provider, or with research on surgical procedures through private sector information resources like Health Care Information of America (a Baltimore corporation that maintains a database describing diagnostic category, procedure code, range of costs, and length of stay information on all inpatient discharges in the United States) to validate the cost projections offered by the consulting expert surgeon. As Shriners Hospital is non-profit and operates on charitable contributions, cost figures for future care were not available from this resource. The attorney obtained cost figures for prior services after extensive consultation with a specialist in service costs. Offsets for possible alternative resources were not portrayed and were deferred for review by the consulting valuation expert (see above: Characteristics of a Good Life Care Plan, Items 5, 15, 18, 21, 23).

The Table 1 Cost Chart illustrates the type of formatting and content found in good LCP's. It is again important to note here that the example LCP and associated Cost Chart has been abstracted for inclusion here and many details, narrative descriptions, and source documentations have been left out.

LCP VALUATION FOR LITIGATION

Typically, the valuator will receive a LCP from the hiring attorney in a form similar to the example presented for JJ above and in Table 1. The valuator is usually engaged to provide the attorney with the type of pecuniary information needed for some upcoming event in the litigation process such as arbitration, mediation, or trial. As a practical matter, the valuator's task is to organize the costs presented in the Cost Chart and portray them as annual dollar amounts needed

to fund the LCP for its projected duration.

Table 2 is an example of how JJ's LCP costs can be prepared to facilitate the process of litigation. Readers of this chapter are asked to keep in mind that different valuators will likely approach this task in a manner consistent with their own experience, the rules of the applicable venue (court), and the instructions of the hiring attorney. Thus, Table 2 may be viewed as a somewhat inclusive generalized example of how JJ's LCP might be valued – absent some of the constraints of a specific litigation process.

When the litigation process results in funding to pay for LCP resources, it most often is provided in one of two forms: a structured payment arrangement similar to an annuity with periodic payments (such as annually) or a lump sum award that can be invested to earn interest, with funds withdrawn when needed. A valuator can organize the valuation process such that the result will facilitate the accuracy and appropriateness of either form of funding. With this in mind, Table 2 was constructed and organized so that both future and present value funding amounts are shown.

The process, issues, and goals that contributed to the development of Table 2 are described briefly below. Table 2 is constructed such that the costs for each year are due to be funded on September 1st of that calendar year, starting with 9/1/1998 when the LCP was (hypothetically) completed and valued in preparation for a litigation event (such as a trial).

Table 2 shows the annual costs by category (described further below) and in total for each year in both future value and present value. The future value dollars are useful when considering some form of structured payment agreement or annuity as they include each type of cost's projected annual growth rate, but allow an annuitist or insurance company to apply their own interest/discount rate. Also, some courts (such as in New York State) specify that the costs must be presented in future value.

In most cases it is not practical (as is true for this example) to show the cost stream over time for

every item in the LCP Cost Chart. Table 2 shows 10 columns of annual costs (1-10) by category, projected annually from 1998 to 2065. All of the individual resource items presented in Table 1 are grouped and included in columns 1-10 in Table 2. The items were grouped by type of resource and also by similarity of projected annual increase (growth). The column headings in Table 2 match as closely as possible the categories of resources presented in Table 1.

The Table 1 Cost Chart prepared by the planner was amended in one small way for this presentation. In the column headed "Unit Cost", under each unit cost is inserted a notation to show in which column on Table 2 that particular cost is included. As an example, the third item listed in Table 1 "Button Hook" has a notation "T2C#1" under the "Unit Cost". This informs the reader that this cost of \$3.95 is included in Table 2, Column #1 "Assistive Techno(logy) Items", every eight years starting with 1998.

The costs of the resources listed in Table 1 are all included in Table 2 according to the schedule stated in the Cost Chart. However, no specific schedule was presented for the 34 surgical procedures to be done over a span of 11 years, with no order specified. To value these known costs appropriately, the costs were totaled and allocated evenly over the 11 year period (see Table 2, column #5). While the Table 1 Cost Chart presented the surgical costs as "one-time only cost" they could not be treated all together as a one-time cost. If the total cost for all the surgeries was considered due in 1998, the present value total needed to fund the plan would increase since no discounting for interest accumulation would occur.

The planner is not to be faulted for not providing a definite schedule for the surgeries. An attempt was made to gather this data – but the surgeon could not provide it with any degree of accuracy. In such a case the valuator must determine a reasonable mechanism to avoid "front loading" the present value analysis and overstating the funds needed. Conversely, the valuator must also guard against delaying the payment due date. In this case, if no funds for surgery were provided in 1998, then there is a risk that insufficient funds would be available when needed, with possible adverse consequences for the entire LCP.

While not a factor in this example case, a similar valuation problem exists when there is strong medical data supporting the probability of medical complications and associated costs occurring in the future of a severely or catastrophically disabled person. Unplanned but "expected" medical costs are often included in LCP cost charts by diligent planners. Often a representative cost per event has been determined as well. If a probability of occurrence can also be determined for such events (data and/or doctor specified), then such costs can also be included in the valuation of the plan in a manner similar to how the surgeries were done for JJ's plan.

The annual growth rate for the costs in each column of Table 2 can be determined by examining the notation following each column number. The projected inflation rate was paired with real growth rates according to the type of cost in each column. The annual inflation rate (I) was projected to be 3.3% annually. This is the base rate of growth for all costs in columns 1-10. A real (in excess of inflation) growth rate was added to the inflation rate for cost types that warrant projecting faster annual growth.

The annual growth rate used in column 1 "Assistive Techno(logy) Items" was solely the projected inflation rate of 3.3%. This rate was also used for columns 3 and 7.

In column 2, "Assistive Techno(logy) Services" the projected annual growth rate for medical services (6%) was used. This 6.0% nominal rate is composed of 3.3% for inflation and 2.7% for real growth. For many years the annual growth rate for medical services has been higher (weighted average) than inflation by approximately 2.7%. Column 5 also incorporates the medical services growth rate. The annual growth rate used in columns 4, 6, and 8 is 4.3%. This is the 3.3% inflation rate plus 1% for the projected average annual real growth in most non-medical worker wages in the future.

Columns 11 and 12 are somewhat self-explanatory. They show the yearly total of columns 1-10, and the cumulative total of all the years to a point in the future. Columns 1-12 present the actual funding (dollars) needed in each year into the future.

Columns 13 and 14 show the present value of the dollars needed in each future year. The dollar amounts shown are discounted to present value using an interest rate of 6.3%. For litigation, an interest rate for a safe and secure investment should be used – such as that earned of U.S. Treasury issues.

Table 2 projects the LCP costs until November 2065. JJ was injured 7/18/94 when he was four years old. The average life expectancy of a male in the United States at age 4 is 70.2 years – to age 74.2 (November 2065). Table 2 was constructed to show the necessary LCP costs for JJ's full average life expectancy. The valuator believes that funding requirements should be projected over the average life expectancy – unless specifically instructed to do otherwise. Even if there was good reason to suspect that JJ's (or some other severely injured person's) life expectancy was shortened due to his injuries – it is not the responsibility of the valuator to truncate the funding needs projection at some point earlier than average life expectancy. The issue of possibly reduced life expectancy is the purview of the doctors and the trier of fact (court, arbitrator, etc.) to determine – not the valuator's or the planner's. Table 2 is constructed such that should it be decided that JJ would not survive past a certain age or year, the costs for funding the LCP to that point are readily discernable.

LCP Cost Charts typically show the itemized listing of costs for the direct goods and services needed to sustain the injured person. The Table 1 Cost Chart includes two somewhat atypical costs that were placed in Table 2, column 10. In the valuator's experience, the costs for financial and legal consultant fees are not often included as necessary life care expenses. These costs were discussed with the planner and the attorney, and then included in column 10 since they have at least an indirect bearing on the funding and execution of the LCP. In addition, these costs could easily be backed out (if deemed appropriate) of the projected payment stream since they occur only once at the inception of the plan.

SUMMARY

The experts normally assigned the task of developing and valuing a LCP for litigation often

bring diverse professional sets to the task. Differences in professional set have a positive effect on task completion so long as there is maximum utilization of each expert's professional skills, knowledge, training, experience, and values. Differing primary goals, a lack of understanding, adherence to set based assumptions, unclear roles and responsibilities, and the superimposed constraints of the legal system can all negatively effect task completion.

Effective utilization of the concepts necessity and sufficiency, and adoption of the process and outcome standards described are a useful means to integrate the work of the life care planner and valuator to produce a reasonable and accurate LCP for litigation. The identification and use of guidelines and standards for the LCP development and valuation process in litigation can facilitate positive task completion and goal attainment for everyone involved.

References

Anchor, K.N. & Saunders, M.R. (1996). "Chapter 1: Disability Analysis: Career for the Twenty-First Century" *Disability Analysis Handbook: Tools for Independent Practice*. Dubuque, Iowa: Kendall/Hunt Publishing Company.

Austin, C. (1983). "Case Management in Long-Term Care: Options and Opportunities." *Health and Social Work* 8: 16-30.

Bagwell, D.M., Harrell, W.T., & Willingham, A.C. (1999). "Chapter 1: Life Care Planning: The Interdisciplinary Team Approach." *Disability Analysis In Practice: Framework for an Interdisciplinary Science*. Dubuque, Iowa: Kendall/Hunt Publishing Company.

Beatrice, D. (June 1979). *Case Management: A Policy Option in Long-Term Care*. Brandeis University: University Health Policy Consortium.

Caragonne, P. (July 1982). *A Comparative Analysis of the Function of the Case Manager in Twenty-Two National Settings: Years I - III*. Washington, DC: Office of Human Development Services.

Caragonne, P. (1980). *A Review of the Literature on Services Integration*. Austin, TX: Center for Social Work Research, University of Texas at Austin.

Certified Life Care Planner Examination. (1997-2000). Midlothian, VA: Commission on Disability Examiner Certification.

Damman, M. & Patel, S. (1999). "Enhancing the case manager's role through early identification of at-risk members." *Journal of Case Management* 8(2): 98-104.

DeWitt, J. (August 1977). *Managing the Human Service System: What Have We Learned from Service Integration?* Project SHARE, Human Services Monograph Series, No. 4.

Faubion, C.W. & Andrew, J. (2000). "A Systems Analysis of the Case Coordinator Moel and an Outcomes Analysis in Supported Employment." *Rehabilitation Counseling Bulletin* 43(2): 75-83.

Feldman, R. & Egge, K. (1995). "Saving Offsets In Future Care Costs for the Severely Injured: New Thoughts On An Unsettled Issue." *Journal of Forensic Economics* 8(3): 239-245.

Horton, G.T., Carr, V.N.E., & Corcoran, G.J. (July 1976). *Illustrating Services Integration from Categorical Bases*. Project SHARE, Human Services Monograph Services, No. 3.

Isom, R.N. (1998). "Disability Management: Building the Program." *Journal of Rehabilitation Administration*, 22(2): 137-139.

Life Care Planning Certificate Program. (1996-2000). Life Care Planning for Catastrophic Case

Management and Advanced Life Care Planning for Catastrophic Case Management. Ocoee, FL: Intelicus/University of Florida.

Neale, P.S. (2000). "Medical Rehabilitation Case Management Accreditation." *Rehabilitation Nursing* 25(3): 84-85.

Quinn, J., Prybylo, M; & Pannone, P. (1999). "Community care management across the continuum." *Care Management Journals* i(r): 223-231. *Journal of Long-Term Home Health Care*.

Ramos, M.C. (1999). "The Successful Utilization of Financial Data in the Support of Care Management." *Family and Community Health*, 22(3): 49-63.

Raymond, R. (1998). "Potential Bias in the Estimation of Future Medical Care Costs: Empirical and Conceptual Issues." *Journal of Legal Economics* 8(1): 41-60.

Service Integration: A Twenty-Year Retrospective. (January 1991). Washington, DC: Office of Health and Human Services, Office of Inspector General.

Slack, M.K. & McEwen, M.M. (2000). "The Impact of Interdisciplinary Case Management on Client Outcomes." *Journal of Rehabilitation Outcomes Measurement* 4(1): 40-51.

Slesnick, F. & Thornton, R. (1994). Life Expectancies for Persons With Medical Risks." *Journal of Forensic Economics* 7(2): 197-207.

Thornton, R. & Slesnick, F. (1997). "New Estimates of Life Expectancies for Persons with Medical Risks." *Journal of Forensic Economics* 10(3): 285-290.

Tinari, F. (1995). "Do We Double Count Damages in Severe Personal Injury Cases?" *Journal of Legal Economics* 5(2): 23-32.

Vallon, K.R., Foti, M.E.G.; Langman-Dorwart, N.; & Gatti, E. (1997). "Comprehensive Case Management in the Private Sector for Persons with Severe Mental Illness." *Psychiatric Services* 48(7): 910-914.

TABLE 1

LIFE CARE PLAN FOR JIMMY JONES

Developed by Caragonne and Associates, Inc.

St. Louis, MO

Jimmy Jones: Date of Birth: 8/20/90; Date of Injury: 7/18/94; Date of Plan: 9/1/98

ASSISTIVE TECHNOLOGY AND ADAPTED COMPUTING RESOURCES

RESOURCE	DATE DATE COST		FREQUENCY	AVERAGE ANNUAL COST	ONE-TIME ONLY COST	RATIONALE			
Little Octopus Suction Holders	These suction holders can be used to position and hold a variety of items.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$2.25 Table 2 Column #1	Annually	\$2.25	\$0.00	
Adjustable Table/Book Holder	To help hold books for Jimmy while he reads.	Maxi-Aids P.O. Box 3209 Farmingdale, NY	1998	Life Exp.	\$43.95 T2C#1	Every 4 Years	\$10.99	\$0.00	
Button Hook	To facilitate one-handed use of buttons.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$3.95 T2C#1	Every 8 Years	\$0.79	\$0.00	This item is included to increase Jimmy's independence while dressing and undressing or for use in performing other daily life activities. However, it is likely that he will always require some assistance for some of these tasks.
Clamp-On Vegetable Peeler	This device clamps to a table to permit one-handed peeling of vegetables.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$21.95 T2C#1	Every 6 Years	\$3.66	\$0.00	This item is included to increase Jimmy's independence in performing daily life activities. It is likely that he will always require some assistance for some of these tasks.
Dragon Dictate Voice Operated Computer Hardware/ Software*	To provide Jimmy with recreational and vocational opportunities.	Local Vendor or Mail Order	1998	Life Exp.	\$2,200.00 T2C#3	Every 6 Years	\$366.67	\$0.00	This system will include the following: (as typically available at the time of purchase) a color monitor, a Pentium 200 Mhz. processor or faster, at least 32 Mb RAM, at least a 4 Gb hard drive, at least a 33.6 modem, 3.5" disk drive, CD-ROM drive, SoundBlaster or compatible Sound card w/speakers, microphone, ink jet printer, Joystick, application software* and the current version of Dragon Dictate voice control software.
and visual-spa challenge his n include a word	tial processing. As a child Jimm nemory and coordination. As Jii processor, spreadsheet, databa c prompting for important activit	y's software might includ mmy ages, more sophisti ase, checkbook software,	e Kid Pix S cated edua Internet a	Studio, Livi cational so ccess, and	ng Books, Wr ftware should other softwa	ite Out Loud, Bailey be introduced base re. As a memory p	's Book House ed upon his ab prompt for Jim	e, Millies Math ilities at the tin my, the softwa	reading, mathematics, memory, writing, House, and a selection of games to ne. Finally as an adult, his software could re for his computer can be programmed to ge. Some memory deficits can be

Dragon Dictate Voice Operated Computer Software & User Training	To assure the knowledge base that will permit full use of computer-based technology.	Cerebral Palsy Foundation Assistive Technology Center 2021 N. Old Manor Rd. Wichita, KS 67208	1998	Life Exp.	\$1,902.00 T2C#3	24 Hours Every 6 Years (Cost for Training Estimated at \$75.00 per Hour)	\$317.00	\$0.00	Changes in hardware and software can sometimes be dramatic this item will assure continued access to the computer and software. Cost for this item includes travel and other expenses.
Dual Brush With Suction Base	This device will help Jimmy to wash dishes with one hand.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$14.25 T2C#1	Every 2 Years	\$7.13	\$0.00	This item is included to increase Jimmy's independence in performing daily life activities. It is likely that Jimmy will always require some assistance for some of these tasks.
Height Adjustable Desk	so that Jimmy can access the	Anthro Technology Institute 10450 SW Manhasset Drive Tualatin, OR 97062	1998	Life Exp.	\$400.00 T2C#1	Every 10 Years	\$80.00	\$0.00	
Leveron Door Handles	To help compensate for one- handed access to the environment.	Maxi-Aids P.O. Box 3209 Farmingdale, NY	1998	Life Exp.	\$10.95 T2C#1	Every 10 Years (Will Require 6 Handles)	\$6.57	\$0.00	
Library of Congress Talking Books	To provide Jimmy with a recreational and educational outlet.	National Library Service for the Blind and Physically Handicapped of the Library of Congress.	1998	Life Exp.	\$0.00 T2C#1	Lifetime		\$0.00	The services available without cost for individuals with disabilities related to the access of printed material. Several aspects of Jimmy's disability effect his access to print material including his difficulty with reading and memory.
Meat Cutter Knife	To allow Jimmy more independence at meal time.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$49.95 T2C#1	Every 4 Years	\$12.49	\$0.00	
Melamine Scoop Bowl	Allow easier one-handed eating.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$13.50 T2C#1	Every 2 Years	\$6.75	\$0.00	
Melamine Scoop Dish	Allow easier one-handed eating.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$13.95 T2C#1	Every 2 Years	\$6.98	\$0.00	
Mixing Bowl with Suction Base	Used to mix food items will not tip or spin during use.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$12.50 T2C#1	Every 5 Years	\$2.50	\$0.00	This item is included to increase Jimmy's independence in performing daily life activities. It is likely that he will always require some assistance for some of these tasks.

Mobile Telephone/ Telephone Service with battery backup for telephone	To allow for safe travel in the event of a breakdown.	Local Provider	1998	Life Exp.	\$20.00 T2C#1	12 times per year	\$240.00	\$0.00	Because of split thickness skin grafts, Jimmy has difficulty regulating body temperature. Becoming stranded, causing extended exposure to the elements or temperature extremes, could be health threatening.
One-Handed Can Opener	This device is battery operated to permit one-handed opening cans.		1998	Life Exp.	\$29.95 T2C#1	Every 6 Years	\$4.99	\$0.00	This item is included to increase Jimmy's independence in performing daily life activities. It is likely that he will always require some assistance for some of these tasks.
One-Handed Jar/Bottle Opener	This device bolts under a cabinet to permit one-handed opening of jars and bottles.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$7.75 T2C#1	Every 6 Years	\$1.29	\$0.00	This item is included to increase Jimmy's independence in performing daily life activities. It is likely that he will always require some assistance for some of these tasks.
One-Handed Paring Board	Holds foods for slicing, grating and for other cooking operations. This device will even hold a slice of bread so that a spread can be applied.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$48.95 T2C#1	Every 6 Years	\$8.16	\$0.00	This item is included to increase Jimmy's independence in performing daily life activities. It is likely that he will always require some assistance for some of these tasks.
Quad-Quip Wash Mitts	Allows one-handed washing.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$6.75 T2C#1	1 time per year	\$6.75	\$0.00	This item is included to increase Jimmy's independence in performing daily life activities. It is likely that he will always require some assistance for some of these tasks.
Roll Dycem Matting	To prevent items from sliding away when manipulated with one hand.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$14.95 T2C#1	1 time per year	\$14.95	\$0.00	This item is included to increase Jimmy's independence in performing daily life activities. It is likely that he will always require some assistance for some of these tasks.
Shoe Buttons	These devices are used to allow easy access to laced shoes.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$3.50 T2C#1	2 Packages Every 2 Years	\$3.50	\$0.00	This item is included to increase Jimmy's independence in performing daily life activities. It is likely that he will always require some assistance for some of these tasks.
Spyrolaces	Another alternative to shoelaces for one handed operation. This is a more casual tennis shoe type alternative.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$2.50 T2C#1	2 Pair Every Year	\$5.00	\$0.00	This item is included to increase Jimmy's independence in performing daily life activities. It is likely that he will always require some assistance for some of these tasks.
Stay-Put Suction Disk	This device is used to hold bowls and other objects when cooking.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$7.95 T2C#1	Annually	\$7.95	\$0.00	This item is included to increase Jimmy's independence in performing daily life activities. It is likely that he will always require some assistance for some of these tasks.

In toothpaste can be dispensed one-handed. Western Springs, IL 60558-0386 Image: Springs, IL 60558-0386 Image: Springs, IL 60558-0386 <	Suction Brush	cleaning.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$4.25 T2C#1	Every 1 Year Requires 2	\$8.50	\$0.00	This item is included to increase Jimmy's independence in performing daily life activities. It is likely that he will always require some assistance for some of these tasks.
Table variety of equipment for access while in seated or in bed. 0. Box 386 Western Springs, IL 60558-0386 1 1 T2C#1 1	Dispenser	toothpaste and brush so that the toothpaste can be	P.O. Box 386 Western Springs, IL	1998	Life Exp.		Every 4 Years	\$6.24	\$0.00	independence in performing daily life activities. It is likely that he will always require some assistance for some of
Fastenerslip-on.P.O. Box 386 Westem Springs, IL 60556-0386P.O. Box 386 Westem Springs, IL 60556-0386T2C#1T2C#1T2C#1Independence in performing daily life activities. It is likely that he will alway require some assistance for some of these tasks.Zip-It Zipper PullTo facilitate one-handed use of zippers.Sammons, Inc. P.O. Box 386 Westem Springs, IL 60558-0386198Life Exp. T2C#1Every 8 Years\$0.59\$0.00This time is included to increase Jim independence in performing daily life activities. It is likely that he will alway require some assistance for some of these tasks.ASSISTIVE TECHNOLOGY AND ADAPTED COMPUTING RESOURCES:NNULL COSTS NOW THROUGH LIFE\$1,160.19Computer Software UpgradeTo provide increased educational opportunity, drill and practice and vocational/living support.Local Vendor or Mail Order199Life Exp. T2C#3\$35.00 T2C#3\$4 per year From Age 8 to Life 		variety of equipment for access while in seated or in	P.O. Box 386 Western Springs, IL	1998	Life Exp.		Every 5 Years	\$20.99	\$0.00	independence after surgeries and anytime
of zippers. P.O. Box 386 Western Springs, IL 60558-0386 Image: Computer - 100000000000000000000000000000000000		slip-on.	P.O. Box 386 Western Springs, IL	1998	Life Exp.		2 Sets per Year	\$7.50	\$0.00	independence in performing daily life activities. It is likely that he will always require some assistance for some of
Computer Software UpgradeTo provide increased educational opportunity, drill and practice and vocational/living support.Local Vendor or Mail Order1999Life Exp. Life Exp.\$35.00 T2C#34 per year From Age 8 to Life Expectancy\$140.00\$0.00These packages should include titles are of particular interest to Jimmy N software titles to continue challenging Jimmy as he progresses. The cost fo these titles is estimated at \$35.00 ea and 4 new titles per year.ASSISTIVE TECHNOLOGY AND ADAPTED COMPUTING RESOURCES\$140.00\$140.00\$140.00Assistive Assessment/ Training/ServicesTo assure that necessary and vocational needs is identified and fully utilized.Cerebral Palsy 	Zip-It Zipper Pull	of zippers.	P.O. Box 386 Western Springs, IL	1998	Life Exp.		Every 8 Years	\$0.59	\$0.00	independence in performing daily life activities. It is likely that he will always require some assistance for some of
Software Upgrade and practice and vocational/living support. Order T2C#3 Age 8 to Life Expectancy Age 8 to Life Expectancy are of particular interest to Jimmy - N software titles to continue challenging Jimmy as he progresses. The cost fo these titles is estimated at \$35.00 ea and 4 new titles per year. ASSISTIVE TECH-ULOGY AND ADAPTED COMPUTING RESOURCES \$140.00 Assistive Technology Assessment/ Training/Services To assure that necessary and vocational needs is identified and fully utilized. Cerebral Palsy Foundation Assistive Technology Center 2021 North Old Manor Road Wichita, KS 67208 1999 Carls 205 \$75.00 T2C#2 10 Hours Every 3 to 5 Years From Age 8 Through Age 64 \$187.50 \$0.00 Jimmy's independence is affected by number of issues including poor bilat upper extremity coordination, amputa of digits on the left-hand, and poor memory efficiency. Ongoing assistive technology assessments can assist ii identifying areas of new technology helpful for jimmy.	ASSISTIVE TECHN	NOLOGY AND ADAPTED COM	PUTING RESOURCES:	ANNUAL	COSTS NO	OW THROU	GH LIFE	\$1,160.19		
Assistive Technology Assessment/ Training/ServicesTo assure that necessary assistive technology for home and vocational needs is identified and fully utilized.Cerebral Palsy Foundation Assistive Technology Center 2021 North Old Manor Road Wichita, KS 6720819992055\$75.00 T2C#210 Hours Every 3 to 5 Years From Age 8 Through Age 64\$0.00Jimmy's independence is affected by number of issues including poor bilat upper extremity coordination, amputa of digits on the left-hand, and poor memory efficiency. Ongoing assistiv- technology assessments can assist in identifying areas of new technology helpful for Jimmy.		educational opportunity, drill and practice and		1999	Life Exp.		Age 8 to Life	\$140.00	\$0.00	are of particular interest to Jimmy New software titles to continue challenging Jimmy as he progresses. The cost for these titles is estimated at \$35.00 each
Technology Assessment/ Training/Servicesassistive technology for home and vocational needs is identified and fully utilized.Foundation Assistive Technology Center 2021 North Old Manor Road Wichita, KS 67208T2C#2to 5 Years From Age 8 Through Age 64number of issues including poor bilat upper extremity coordination, amputa of digits on the left-hand, and poor memory efficiency. Ongoing assistiv technology assessments can assist in identifying areas of new technology helpful for Jimmy.	ASSISTIVE TECHN	NOLOGY AND ADAPTED COM	PUTING RESOURCES					\$140.00		
ASSISTIVE TECHNOLOGY AND ADAPTED COMPUTING RESOURCES: STARTING IN ONE YEAR TO RETIREMENT \$187.50	Technology Assessment/	assistive technology for home and vocational needs is identified and fully utilized.	Foundation Assistive Technology Center 2021 North Old Manor Road Wichita, KS	1999	2055	+	to 5 Years From Age 8 Through	\$187.50	\$0.00	number of issues including poor bilateral upper extremity coordination, amputation of digits on the left-hand, and poor memory efficiency. Ongoing assistive technology assessments can assist in identifying areas of new technology
	ASSISTIVE TECHN	NOLOGY AND ADAPTED COM	PUTING RESOURCES:	STARTIN	G IN ONE `	YEAR TO RI	ETIREMENT	\$187.50		1

Assistive Technology Assessment/ Training/Services	To assure that necessary assistive technology is identified and fully utilized.	Cerebral Palsy Foundation Assistive Technology Center 2021 N. Old Manor Rd. Wichita, KS 67208	2056	Life Exp.	\$75.00 T2C#2	10 Hours Every 3 Years From Age 66 Through Life Expectancy	\$352.00	\$0.00	Jimmy's independence is affected by a number of issues including poor bilateral upper extremity coordination, amputation of digits on the left-hand, and poor memory efficiency. Ongoing assistive technology assessments can assist in identifying other aspects of technology beneficial for Jimmy.
ASSISTIVE TECHN	OLOGY AND ADAPTIVE CON	IPUTING RESOURCES:	RETIREN			ГІМЕ	\$352.00		
Assistive Technology Assessment/ Training/Services	To assure that recommended assistive technology is implemented.	Cerebral Palsy Foundation Assistive Technology Center 2021 N. Old Manor Rd. Wichita, KS 67208	1998	1998	\$75.00 T2C#2	15 Hours At Age 7 Onetime Only		\$1,227.00	Jimmy's independence is affected by a number of issues including poor bilateral upper extremity coordination, amputation of digits on the left-hand, and poor memory efficiency.
	Allow participation in fishing as a recreational activity.	Access to Recreation 2509 E. Thousand Oaks Blvd., Suite 430 Thousand Oaks, CA	1998	1998	\$52.00 T2C#1	One Time Only At Age 7		\$52.00	
Assistive Technology Assessment/ Training/Services	To assure that necessary assistive technology is identified and fully utilized.	Cerebral Palsy Foundation Assistive Technology Center 2021 N. Old Manor Rd. Wichita, KS 67208	2056	2056	\$75.00 T2C#2	Onetime Only 15 Hours At Age 65		\$1,227.00	Jimmy's independence is affected by a number of issues including poor bilateral upper extremity coordination, amputation of digits on the left-hand, and poor memory efficiency.
ASSISTIVE TECHN	IOLOGY AND ADAPTED COM	PUTING RESOURCES:		EONLY				\$2,506.00	
COMMUNITY LIV Burn Survivor Summer Camp	/ING SUPPORTS To offer Jimmy support as a burn survivor in a peer recreational setting.	To be determined	1998	2009	\$950.00 - \$1000.00 T2C#4	2 Weeks During the Summer From Age 7 to 18	\$975.00	\$0.00	Many choices are available for this camp a few of the possibilities are as follows: Shriners Hospital in Cincinnati offers a camp, The Northwest Burn Foundation offers a camp, the Illinois Fire Safety Alliance offers a camp and the Burn Center at St. Paul Ramsey Medical Center offers a camp.
	attend. In addition, round-trip co		0		•		•		een calculated to improve Jimmy's Minneapolis, MN. The fare would be
Educational Tutor and Community Integration Assistance	To assist Jimmy in developing and maintaining interests outside of his home and to assure that Jimmy is able to keep up with homework and school assignments.	Community Works Overland Park, KS	1998	2009	\$40.00 T2C#4	8 Hours Per Week 48 Weeks per Year From Age 7 through H.S.	\$15,360.00	\$0.00	Surgeries and other medical appointments will keep Jimmy out-of-town about 4 weeks per year these periods have been deducted from this cost.

Lisses to a star Disting a	To bola Bassissian attains to be		1000	0000	¢40.00	40 \//= = -=		\$0.00	1
Horseback Riding		Watkins C Ranch	1998	2009	\$10.00 -	40 Weeks	\$500.00	\$0.00	
Lessons	activities with peers in his	Atchison, KS			\$15.00	Through the Year -			
	community and to improve his				T2C#4	- 30 Minute to 1			
	bilateral coordination.					Hour Sessions			
						From Age 7			
						through H.S.			
COMMUNITY LIVI	NG SUPPORTS ANNUAL AND	ONE-TIME ONLY COST	S: NOW F	OR 11 YE	ARS	•	\$16,835.00		
Case	To provide oversight and	Community Works	1998	Life Exp.	\$50.00	10 Hours per	\$6,000.00	\$0.00	
Manager/Social	coordination with all services.	Overland Park, KS			T2C#8	Month From			
Worker						Age 7 to Life			
						Expectancy			
COMMUNITY LIVI	NG SUPPORTS ANNUAL AND	ONE-TIME ONLY COST	S: NOW 1	HROUGH	LIFETIME	•	\$6,000.00		
Horseback Riding	To help Jimmy participate in	Watkins C Ranch	1999	2009	\$125.00	8 Weeks In The	\$1,000.00	\$0.00	
Summer Camp	activities with peers in his	Atchison, KS			T2C#4	Summer From			
	community and to improve his					Age 8 through			
	bilateral coordination.					H.S.			
	L NG SUPPORTS ANNUAL AND	ONE-TIME ONLY COST	S: STARI	ing in of	NE YEAR FO	R 10 YEARS	\$1,000.00		<u> </u>
Private High	To assure continued	Maur Hill Prep School	2006	2009	\$2,750.00	Annually From	\$2,750.00	\$0.00	This school is a boys only school with
School		Atchison, KS	2000	2000	T2C#4	Age 15 to 18	φ2,700.00	φ0.00	specialization in, and experience working
0011001	high school.				120//4	/ ige 10 to 10			with students with disabilities. The
	nigh school.								student to teacher ratio is about 15 to 1 or
									less.
									1633.
COMMUNITY LIVI	NG SUPPORTS ANNUAL AND				EARS FOR	4 YEARS	\$2,750.00		
Community	To assist Jimmy in developing		2010	Life Exp.		4 Hours Per Week	\$8,320.00	\$0.00	
Integration	and maintaining interests	Overland Park, Kansas			T2C#4	From Age 19 to			
Assistance	outside of his home.					Life Expectancy			
COMMUNITY LIVI	NG SUPPORTS ANNUAL AND	ONE-TIME ONLY COST	S: STAR	ING IN 12	YEARS TO	LIFE	\$8,320.00		
Job Coach	To provide sufficient	Community Works	2010	2056	\$40.00	Every 3 to 5 Yrs.	\$1,800.00	\$0.00	Some type of meaningful day activity will
		Overland Park, Kansas			T2C#4	for Between 3 and			be sought for Jimmy. It is uncertain at
	ongoing ability to adapt to new					6 Months for 10			this time if this activity will be volunteer or
	jobs and situations.					Hours per Week			compensated work this support would
						From Age 19 to 65			be required in either case.
COMMUNITY LIVI	NG SUPPORTS ANNUAL AND	ONE-TIME ONLY COST	S: STARI	TING IN 12	YEARS TO	RETIREMENT	\$1,800.00		
	IYSICIAN COSTS								
Burn Facility	• • •	Shriners Hospital	1998	2009	\$685.78	2 Times per Year -	\$1,371.56	\$0.00	This item includes Occupational and
Follow-Up Visits	to severe burns.	Cincinnati, OH			T2C#5	Total of 22 Visits			Physical Therapy, Physician and Facility
						From Age 7 to 19			costs and round trip airfare for two at
									\$530.00.
Pediatric Physician	To provide ongoing medical	Mercy Hospital Kansas	1998	2009	\$125.00	2 Times per Year -	\$250.00	\$0.00	
Visits	oversight related to Jimmy's	City, MO			T2C#5	From Age 7 to 19	,	÷::00	
	development after surviving	,, -			0.0				
	severe burns.								

ADDITIONAL PHY	SICIAN COSTS: NOW FOR 11	YEARS		ITIONAL PHYSICIAN COSTS: NOW FOR 11 YEARS												
Pulmonologist Physician Visits	To provide ongoing medical oversight for pulmonological function.	Mercy Hospital Kansas City, MO	1998	2010	\$275.00 T2C#5	Every 3 Years for a Total of 5 Visits - - From Age 7 to 20	91.67	\$0.00	These visits include a Pulmonary Function Test.							
ADDITIONAL PHY	SICIAN COSTS: NOW FOR 13	YEARS					\$91.67									
HOME CARE SE	RVICES															
	This individual will assist with activities of daily living.	Community Works Overland Park, Kansas	2010	Life Exp.	\$15.00 T2C#6	2 hours per day - 7 days per week From Age 19 to Life Expectancy	\$10,957.50	\$0.00								
ANNUAL AND ON	E-TIME ONLY COSTS FOR HO	ME CARE SERVICES				1	\$10,957.50		I							
PROJECTED EV	ALUATIONS															
Neuropsycho- logical Assessment	To provide baseline and recommendations for Jimmy's neuropsychological functioning.	Xxxx Xxxx, Ph.D. Kansas City, MO	1998	2005	\$900.00 T2C#5	3 Total 1 Prior to 3rd grade, 1 Prior to Middle School and 1 Prior to High School From Age 7 to 14	\$385.71	\$0.00								
ANNUAL AND ON	I E-TIME COSTS FOR PROJEC	I	W FOR 7	YEARS			\$385.71									
Vocational Counseling and Planning	To identify interests and capabilities for vocational placement.	Community Works Overland Park, Kansas	2008	2009	\$40.00 T2C#4	24 Sessions in the Last 2 Years of High School	\$960.00	\$0.00								
ANNUAL AND ON	E-TIME ONLY COSTS FOR PR	OJECTED EVALUATION	IS				\$960.00									
PROJECTED TH	IERAPEUTIC MODALITIES															
Family Support/ Education and Counseling	To help Jimmy's family both support him and cope with his injuries.	Xxx Xxx , Ph.D. Kansas City, MO	1998	2009	\$156.00 T2C#5	52 times per year - - Now through H.S.	\$8,112.00	\$0.00	Cost for this item includes travel reimbursement for transportation costs.							
ANNUAL AND ON	E-TIME ONLY COSTS FOR PR	OJECTED THERAPEUTI	IC MODA	LITIES: NO	OW FOR 11	YEARS	\$8,112.00									
Adjustment to Disability Counseling and Support Psychotherapy	To facilitate the ongoing transition to life with a disability.	Xxx Xxx , Ph.D. Kansas City, MO	1998	2015	\$156.00 T2C#5	52 times per year - - Now through Age 25	\$8,112.00	\$0.00	Cost for this item includes travel reimbursement for transportation costs.							
ANNUAL AND ON	E TIME ONLY COSTS FOR PR	OJECTED THERAPEUTI	C MODA	LITIES: NO	OW FOR 1	B YEARS	\$8,112.00		•							
Adjustment to Disability Counseling and Support	To facilitate the ongoing transition to life with a disability.	Xxx Xxx , Ph.D. Kansas City, MO	2016	Life Exp.	\$156.00 T2C#5	18 times per year - - Age 26 to Lifetime	\$2,808.00	\$0.00	Cost for this item includes travel reimbursement for transportation costs.							

SUPPLIES

Baby Oil	To keep Jimmy's split- thickness skin grafts moist.	Local Pharmacy	1998	Life Exp.	\$5.25 T2C#8	12 per Year From Age 7 to Life Expectancy	\$63.00	\$0.00	
Eucerin Lotion	To keep Jimmy's split- thickness skin grafts moist.	Sammons, Inc. P.O. Box 386 Western Springs, IL 60558-0386	1998	Life Exp.	\$15.25 T2C#8	12 per Year From Age 7 to Life Expectancy	\$183.00	\$0.00	
-p	Providers could not estimate future costs in these areas.		1998	Life Exp.	\$0.00 T2C#8	At each instance of surgery.	Cannot be forecast.	\$0.00	
ANNUAL AND ON	E TIME COSTS FOR SUPPLIE	S	1				\$246.00		
PROJECTED CO	STS RELATED TO COMPL	ETION OF SURGICA		/ENTION	PROCEDU	IRES			
	To provide airfare for 2 people to attend the required surgeries for Jimmy.	Best available airline carrier	1998	2008	\$530.00 T2C#7	34 Total Trips for 2 Between Ages 7 and 19 Onetime Only		\$18,020.00	
	To provide a place to stay and food for the individual traveling with Jimmy for his surgeries.		1998	2008	\$110.00 T2C#7	278 Days/Nights Total From Age 7 to 19 Onetime Only		\$30,580.00	Hotel was estimated at \$75.00 per night and food was estimated at \$35.00 per day.
Occupational and Physical Therapy Appliances To Support 34 Surgeries	Post-surgery Jimmy will require frequent splinting and/or compression garments.	Shriners Hospital Cincinnati, OH	1998	2008	\$4,317.00 T2C#5	28 Instances From Age 7 to 19 - - Onetime Only		\$4,317.00	This cost is estimated at: 13 Instances of Splinting at an Average cost of \$159.00 Ea. 15 Various Pressure Garments at an Average cost of \$150.00 Each
Outpatient Clinic Visits After Surgeries	This item provides for the required medical and therapeutic follow-up visits required after surgery.	Shriners Hospital Cincinnati, OH	1998	2008	\$653.75 T2C#5	34 Visits From Age 7 to 19 Onetime Only		\$22,227.50	Included in this item are the following: \$55.00 Facility Fee \$38.00 Physicians Fee \$30.75 Occupational & Physical Therapy Fee \$530.00 Rnd Trip Air Fare for 2
	To reduce scar adhesions in the abdomen and improve function and range of motion.	Xx Xx, M.D. Olathe, KS	1998	2008	\$12,124.00 T2C#5	2 Instances Between Ages 7 and 19 Onetime Only		\$24,248.00	This surgery requires the use of general anesthesia.

NOTE: The surgical costs portrayed were obtained on a per procedure basis from Health Care Information of America. HCIA is a profit, private sector data base that collects cost information from hospitals on an annual basis. This is the largest all-payer inpatient database in the health care industry. Updated quarterly, the PIDB contains approximately 17 million discharges per year from more than 2,500 acute care hospitals, representing more than 40% of all discharges. The PIDB includes data from various hospital system and state hospital association contracts, public and non-public state data, and individual hospitals contracting with HCIA-Sachs.

The PDIB is extrapolated to represent the entire universe of short-term, general non-federal US hospital discharges. This universe is defined using the National Hospital Discharge Survey, producted by the National Center for Health Satistics, and the Medicare Provider Analysis and Review File (MedPAR), produced by the Health Care Financing Administration. The PIDB containes a statistically validated projection methodology that controls for patient age and sex, bed service category, census region, bed size, and teaching status.

The information in the database is depicted by age of consumer, race/ethnicity, gender, payor, patient disposition, admission type (from acute, from skilled nursing) procedure code and title, principle or seconday procedure, total number of observations previous year and current year, number of procedures performed prior to this procedure, location of the country where performed, average length of stay, ancillary services (room, and board, supplies, surgical suite costs, etc.. Costs can be portrayed at different confidence intervals. Source: HCIA-Sachs Inpatient/View, Projected Inpatient Databse (PDIB), HCIA-Sachs, Baltimore, MD, 1998.

Surgery for: Add Tissue Flap to Right Heel	To improve function of the right heel and remediate gait issues related to this missing tissue.	Xx Xx, M.D. Olathe, KS	1998	2008	\$15,409.00 T2C#5	1 Instance From Age 7 to 19 Onetime Only	\$15,409.00	This surgery requires the use of general anesthesia.
Surgery for: Alopecia, Advancement Flap	To restore scalp hair lost in the fire.	Xx Xx, M.D. Olathe, KS	1998	2008	\$7,242.00 T2C#5	1 Instance From Age 7 to 19 Onetime Only	\$7,242.00	This surgery requires the use of general anesthesia.
Surgery for: Ankle Scar Release Left	To reduce scar adhesions in the left ankle and improve function and range of motion.	Xx Xx, M.D. Olathe, KS	1998	2008	\$12,124.00 T2C#5	1 Instance Between Ages 7 and 19 Onetime Only	\$12,124.00	This surgery requires the use of general anesthesia.
Surgery for: Axilla Scar Release Left	To address the contractures at Jimmy's left arm pit and improve function and range of motion.	Olathe, KS	1998	2008	\$12,737.00 T2C#5	2 Instances Between Ages 7 and 19 Onetime Only	\$25,474.00	This surgery requires the use of general anesthesia.
-	To address the contractures at Jimmy's right arm pit and improve function and range of motion.	Olathe, KS	1998	2008	T2C#5	2 Instances Between Ages 7 and 19 Onetime Only		This surgery requires the use of general anesthesia.
Scar Release Left	To address the contractures at Jimmy's left elbow and improve function and range of motion.	Olathe, KS	1998	2008	\$12,124.00 T2C#5	2 Instances Between Ages 7 and 19 Onetime Only		This surgery requires the use of general anesthesia.
Surgery for: Elbow Scar Release Right	To address the contractures at Jimmy's right elbow and improve function and range of motion.	Olathe, KS	1998	2008	\$12,124.00 T2C#5	2 Instances Between Ages 7 and 19 Onetime Only	\$24,248.00	This surgery requires the use of general anesthesia.
Surgery for: Eyebrow Hair Transplant	To restore eyebrow hair lost in the fire.	Olathe, KS	1998	2008	\$3,563.00 T2C#5	1 Instance From Age 7 to 19 Onetime Only	\$3,563.00	This surgery requires the use of general anesthesia.
Surgery for: Facial Cosmetic Surgery	To improve appearance and help address the social consequences of severe facial burns.	Xx Xx, M.D. Olathe, KS	1998	2008	\$14,191.00 T2C#5	1 Instance From Age 7 to 19 Onetime Only	\$14,191.00	This surgery requires the use of general anesthesia.
Surgery for: Hand Syndactyle Left	To improve the function of the left hand as a helper hand.	Xx Xx, M.D. Olathe, KS	1998	2008	\$12,124.00 T2C#5	2 Instances Between Ages 7 and 19 Onetime Only	\$24,248.00	This surgery requires the use of general anesthesia.
Surgery for: Hand Syndactyle Right	To improve right hand function.	Xx Xx, M.D. Olathe, KS	1998	2008	\$12,124.00 T2C#5	2 Instances Between Ages 7 and 19 Onetime Only	\$24,248.00	This surgery requires the use of general anesthesia.

Surgery for:	To reduce scar adhesions in	Xx Xx, M.D.	1998	2008	\$12,124.00	2 Instances	\$24,248.00	This surgery requires the use of general
Interscapular Scar Release		Olathe, KS			T2C#5	Between Ages 7 and 19 Onetime Only		anesthesia.
Scar Release Left	To reduce scar adhesions in the left knee and improve function and range of motion.	Xx Xx, M.D. Olathe, KS	1998	2008	\$12,124.00 T2C#5	2 Instances Between Ages 7 and 19 Onetime Only	\$24,248.00	This surgery requires the use of general anesthesia.
Scar Release Right		Xx Xx, M.D. Olathe, KS	1998	2008	\$12,124.00 T2C#5	2 Instances Between Ages 7 and 19 Onetime Only	\$24,248.00	This surgery requires the use of general anesthesia.
Perineum Scar	To reduce scar adhesions in the perineal area and improve function and range of motion.	Xx Xx, M.D. Olathe, KS	1998	2008	\$11,955.00 T2C#5	1 Instance Between Ages 7 and 19 Onetime Only	\$11,955.00	This surgery requires the use of general anesthesia.
Surgery for: Release Lower Lip	to improve lip appearance and function.	Xx Xx, M.D. Olathe, KS	1998	2008	\$12,124.00 T2C#5	1 Instance Between Ages 7 and 19 Onetime Only	\$12,124.00	This surgery requires the use of general anesthesia.
	To improve facial appearance and reduce scaring.	Xx Xx, M.D. Olathe, KS	1998	2008	\$9,655.00 T2C#5	1 Instance From Age 7 to 19 Onetime Only	\$9,655.00	This surgery requires the use of general anesthesia.
Tracheostomy Scar Revision	To improve the appearance of the tracheostomy scar.	Olathe, KS	1998	2008	\$2,809.00 T2C#5	1 Instance From Age 7 to 19 Onetime Only	\$2,809.00	This surgery requires the use of general anesthesia.
	To improve the function of the left hand as a helper hand.	Xx Xx, M.D. Olathe, KS	1998	2008	\$7,584.00 T2C#5	1 Instance From Age 7 to 19 Onetime Only	\$7,584.00	This surgery requires the use of general anesthesia.
Scar Release Left	To address the contractures at Jimmy's left wrist and improve function and range of motion.		1998	2008	\$12,124.00 T2C#5	2 Instances Between Ages 7 and 19 Onetime Only	\$24,248.00	This surgery requires the use of general anesthesia.
Scar Release Right	To address the contractures at Jimmy's right wrist and improve function and range of motion.	Xx Xx, M.D. Olathe, KS	1998	2008	\$12,124.00 T2C#5	2 Instances Between Ages 7 and 19 Onetime Only	\$24,248.00	This surgery requires the use of general anesthesia.
ANNUAL AND ONE	E-TIME COSTS FOR SURGER	ICAL INTERVENTION			•		\$465,228.50	
	To create a means of managing needs and assets.	To be determined	1998	1998		One Time Only At Age 7	\$8,000.00	
Consultation to	To satisfy leins that require payback to State agencies for prior servics	To be determined	1998	1998	\$7,000.00 T2C#8	One Time Only - At Age 7	\$7,000.00	
ANNUAL AND ONE	-TIME COSTS RELATED TO	FINANCIAL MANAGE	MENT				\$15,000.00	

TABLE 2 JIMMY JONES - Life Care Costs

		1 - I	2 - S	3 - 1	4 - I	l+1%		5 - S	6	6 - I+1%		7 - I	8	- l+1%		9		10		11		12
		ssistive Fechno	Assistive Techno	Adapted Computer		munity /ing		hysician Surgery	1	n-Home		elated Fravel		onsults & Case		Annual FV	Сι	umulative FV	1	Annual PV	Cu	mulative PV
Year Age	е	Items	Services	Needs	Sup	ports	ũ	Costs	5	Support	0	Costs	Μ	anager		Total		Total		Total		Total
1998 7 1999 8	\$ \$	860 307	\$ 1,125 \$ 795	\$ 4,102 \$ 145		16,835 18,602	\$ \$	59,676 62,011	\$ \$	10,958 11,429		4,418 4,564	\$ \$	21,000 6,258	\$ \$	118,974 104,110	\$ \$	118,974 223,084	\$ \$	118,974 97,940	\$ \$	118,974 216,914
2000 9	э \$	362	\$ 795 \$ -	\$ 149			\$ \$		ֆ \$	11,429		4,504	э \$	6,527	\$	104,110	գ \$	331,891	\$ \$	96,292	գ \$	313,206
2001 10		327	\$ -	\$ 154		20,236	\$	71,075	\$	12,433	\$		\$	6,808	\$	115,904	\$	447,795	\$	96,493	\$	409,699
2002 11 2003 12		522 488	\$- \$1,004	\$ 159 \$ 165		21,106 22,014	\$ \$	73,856 78,288	\$ \$	12,968 13,525			\$ \$	7,100 7,406	\$ \$	120,742 128,086	\$ \$	568,537 696,623	\$ \$	94,564 94,370	\$ \$	504,264 598,634
2004 13		544	\$ -	\$ 5,154		22,960	\$	84,652	\$	14,107	\$	5,368	\$	7,724	\$	140,510	\$	837,133	\$	97,389	\$	696,022
2005 14 2006 15		373 606	\$- \$-	\$ 176 \$ 182		23,948	\$ ¢	,	\$ ¢	14,714		5,545	\$ ¢	8,056	\$ ¢	140,775	\$ ¢	977,909	\$ ¢	91,790	\$ ¢	787,812
2006 15 2007 16		398	\$- \$1,267	\$ 188		28,829 30,068	\$ \$	93,242 99,301	\$ \$	15,346 16,006	\$ \$		\$ \$	8,403 8,764	\$ \$	152,335 161,909		1,130,244 1,292,153	\$ \$	93,440 93,427	\$ \$	881,252 974,679
2008 17		1,201	\$ -	\$ 194			\$	104,766	\$	16,695	\$	6,113	\$	9,141	\$	170,202		1,462,355	\$	92,391		,067,071
2009 18 2010 19		424 837	\$- \$-	\$ 200 \$ 6,263		41,990 26,617	\$ \$	33,877 16,876	\$ \$	17,412 18,161	\$ \$	-	\$ \$	9,534 9,944	\$ \$	103,438 78,698		1,565,793 1,644,491	\$ \$	52,822 37,807		,119,892 ,157,699
2010 10		453	\$ 1,600	\$ 214		27,761	\$	17,302	\$	18,942	\$	-	\$	10,372	\$	76,644		1,721,135	\$	34,637		,192,336
2012 21		534	\$ -	\$ 221 \$ 220		28,955	\$	18,340	\$	19,757	\$	-	\$	10,818	\$	78,624		1,799,759	\$	33,427		,225,763
2013 22 2014 23		675 785	\$- \$-	\$ 228 \$ 235		30,200 31,499	\$ \$	19,441 20,607	\$ \$	20,606 21,492	\$ \$	-	\$ \$	11,283 11,768	\$ \$	82,433 86,387		1,882,192 1,968,579	\$ \$	32,969 32,502		,258,732 ,291,234
2015 24		516	\$ 2,020	\$ 243	\$ 3	32,853	\$	21,844	\$	22,416	\$	-	\$	12,274	\$	92,166	\$	2,060,745	\$	32,622	\$1	,323,856
2016 25 2017 26		804 550	\$- \$-	\$ 7,610 \$ 259		34,266 35,739	\$ \$	23,154 8,496	\$ \$	23,380 24,386	\$ \$	-	\$ \$	12,802 13,352	\$ \$	102,016 82,783		2,162,761 2,245,544	\$ \$	33,968 25,930		,357,823 ,383,754
2017 20	\$	1,889	φ - \$ -	\$ 268		37,276	\$	9,006	\$	24,300	\$	-	\$	13,926	\$	87,800		2,333,343	\$	25,872		,409,626
2019 28		587	\$ 2,550	\$ 277		38,879	\$	9,546	\$	26,528	\$	-	\$	14,525	\$	92,892	\$	2,426,235	\$	25,750		,435,376
2020 29 2021 30		692 627	\$- \$-	\$ 286 \$ 295		40,551 42,295	\$ \$	10,119 10,726	\$ \$	27,669 28,858	\$ \$	-	\$ \$	15,150 15,801	\$ \$	94,466 98,602		2,520,702 2,619,304	\$ \$	24,635 24,189		,460,010 ,484,200
2022 31		1,256	\$- \$-	\$ 9,247		44,113	\$	11,369	\$	30,099	\$	-	\$	16,481	\$	112,565		2,731,868	\$	25,978		,404,200
2023 32		934	\$ 3,219	\$ 315			\$		\$	31,393	\$	-	\$	17,189	\$	111,113		2,842,981	\$	24,123		,534,301
2024 33 2025 34		789 714	\$- \$-	\$ 326 \$ 336		47,989 50,052	\$ \$	12,775 13,541	\$ \$	32,743 34,151	\$ \$	-	\$ \$	17,928 18,699	\$ \$	112,549 117,494		2,955,530 3,073,024	\$ \$	22,987 22,574		,557,287 ,579,862
2026 35		1,137	\$- \$-	\$ 347		52,204	\$	14,354	\$	35,620	\$	-	\$	19,503	\$	123,165		3,196,190	\$	22,262		,602,123
2027 36		761	\$ 4,064	\$ 359		54,449	\$	15,215	\$	37,151	\$	-	\$	20,342	\$	132,342		3,328,532	\$	22,503		,624,626
2028 37 2029 38		2,588 813	\$- \$-	\$ 11,235 \$ 383		56,790 59,232	\$ \$	16,128 17,095	\$ \$	38,749 40,415	\$ \$	-	\$ \$	21,217 22,129	\$ \$	146,707 140,068		3,475,238 3,615,306	\$ \$	23,467 21,077		,648,093 ,669,170
2030 39		1,320	\$-	\$ 396			\$	18,121	\$	42,153	\$	-	\$	23,081	\$	146,850		3,762,156	\$	20,788		,689,957
2031 40		867	\$ 5,130	\$ 409		64,436	\$	19,208	\$	43,966	\$	-	\$	24,073	\$	158,089		3,920,245	\$	21,053		,711,010
2032 41 2033 42		1,022 1,293	\$- \$-	\$ 422 \$ 436		67,207 70,097	\$ \$	20,361 21,583	\$ \$	45,856 47,828	\$ \$	-	\$ \$	25,108 26,188	\$ \$	159,977 167,424		4,080,222 4,247,646	\$ \$	20,041 19,731		,731,051 ,750,782
2034 43		1,825	\$-	\$ 13,652		73,111	\$	22,877	\$	49,885	\$	-	\$	27,314	\$	188,663		4,436,309	\$	20,917		,771,699
2035 44		3,281	\$ 6,477	\$ 465		76,254	\$	24,250	\$	52,030	\$	-	\$	28,489	\$	191,246		4,627,555	\$	19,946		,791,645
2036 45 2037 46		1,164 1,054	\$- \$-	\$ 481 \$ 497		79,533 82,953	\$ \$	25,705 27,247	\$ \$	54,267 56,600	\$ \$	-	\$ \$	29,714 30,991	\$ \$	190,864 199,343		4,818,419 5,017,762	\$ \$	18,727 18,399		,810,372 ,828,771
2038 47		3,650	\$-	\$ 513		86,520	\$	28,882	\$	59,034	\$	-	\$	32,324	\$	210,924		5,228,685	\$	18,314		,847,086
2039 48		1,124	\$ 8,177	\$ 530		90,241	\$	30,615	\$	61,573	\$	-	\$	33,714	\$	225,974		5,454,659	\$	18,458		,865,544
2040 49 2041 50		1,752 1,200	\$- \$-	\$ 16,588 \$ 566		94,121 98,168	\$ \$	32,452 34,399	\$ \$	64,220 66,982	\$ \$	-	\$ \$	35,164 36,676	\$ \$	244,296 237,990		5,698,955 5,936,945	\$ \$	18,772 17,204		,884,317 ,901,521
2042 51		1,911	\$-	\$ 584	\$ 10	02,389	\$	36,463	\$	69,862	\$	-	\$	38,253	\$	249,462	\$	6,186,408	\$	16,965		,918,485
2043 52 2044 53		1,789	\$ 10,323 \$ -	\$ 603 \$ 623		06,792	\$ \$	38,651 40,970	\$ \$	72,866	\$ \$	-	\$ \$	39,897	\$	270,922		6,457,330	\$ \$,935,817
2044 53 2045 54		1,509 1,366	\$- \$-	\$ 644		11,384 16,174	э \$	40,970 43,428	э \$	75,999 79,267	э \$	-	э \$	41,613 43,402	\$ \$	272,099 284.282		6,729,430 7,013,711	э \$	16,376 16.095		,952,193 ,968,287
2046 55	\$	2,737	\$ -	\$ 20,155	\$ 12	21,169	\$	46,034	\$	82,676	\$	-	\$	45,269	\$	318,040	\$	7,331,751	\$	16,939	\$1	,985,226
2047 56 2048 57		1,458 4,401	\$ 13,033 \$ -	\$ 687 \$ 710		26,380 31,814		48,796 51,724	\$ ¢	86,231	\$ \$	-	\$ \$	47,215	\$ ¢	323,800 327,833		7,655,551 7,983,383	\$ \$,001,450
2048 57 2049 58		1,556	s -	\$ 733		37,482		54,827		89,939 93,806	э \$	-	э \$	49,246 51,363	\$ \$	339,767		8,323,150	գ \$	15,066		,016,902 ,031,968
2050 59		2,478	\$ -	\$ 757		43,394		58,117	\$	97,840	\$	-	\$	53,572	\$	356,157	\$	8,679,307	\$		\$2	,046,824
2051 60 2052 61		1,660 2,586	\$ 16,454 \$ -	\$ 782 \$ 24,490		49,559 55,991		61,604 65,300		102,047 106,435	\$ \$	-	\$ \$	55,875 58,278	\$ \$			9,067,289 9,480,369	\$ \$,062,049 ,077,297
2053 62		2,300	φ - \$ -	\$ 24,490 \$ 835		62,698			\$	111,012	\$	-	\$	60,784	φ \$			9,887,390	\$,077,237 ,091,432
2054 63		2,877	\$ -	\$ 862	\$ 16	69,694		73,371	\$	115,785	\$	-	\$	63,398	\$	425,987	\$1	0,313,378	\$	13,917	\$2	,105,349
2055 64 2056 65		1,890 2,229	\$ 20,773 \$ 33,029	\$ 891 \$ 920		76,991 84,602		77,773 82,440	\$ \$	120,764 125,957	\$ \$	-	\$ \$	66,124 68,967	\$ \$	465,206 498,143		0,778,583	\$ \$,119,646 ,134,048
2057 66		2,229		\$ 920 \$ 951		99,746			ֆ \$	131,373	գ \$	-	э \$	71,933	\$			1,670,132	\$,134,048
2058 67		7,688	\$-	\$ 29,757	\$ 10	04,036	\$	92,629	\$	137,022	\$	-	\$	75,026	\$	446,158		2,116,290	\$	11,415	\$2	,156,163
2059 68 2060 69		2,152 2,538	\$ 26,225 \$ -	\$ 1,014 \$ 1,048		08,509 13,175		98,187 104,078		142,914 149,059	\$ \$	-	\$ \$	78,252 81,617	\$ \$			2,573,543	\$ \$,167,169 ,177,393
2061 70		2,330	\$- \$-	\$ 1,040 \$ 1,083		18,042		110,323		155,469	\$	-	\$	85,126	\$	472,338		3,497,396	\$,		,177,393
2062 71		3,730	\$ 31,235	\$ 1,118		23,117		116,943		162,154	\$	-	\$	88,787	\$			4,024,480	\$,198,016
2063 72 2064 73		3,424 3,819	\$- \$-	\$ 1,155 \$ 36,157		28,411 33,933		123,959 131,397		169,126 176,399	\$ \$	-	\$ \$	92,604 96,586	\$ \$			4,543,160	\$ \$,207,794 ,218,050
2065 74	\$	523	\$ 7,440	\$ 1,233	\$ 2	27,938	\$	27,856	\$	36,797	\$	-	\$	20,148	\$	121,935		5,243,386	\$	2,034		,220,084
Total	s \$	105,012	\$ 195,939	\$212,662	\$ 5,1 ⁻	13,654	\$3	3,259,603	\$ 4	4,060,656	\$	57,465	\$2	,238,393	\$ ^	15,243,386			\$ 2	2,220,084		

Jimmy Jones: DOB: 8/20/90; DOI: 7/18/94; Age DOI: 4; Average Life Expectancy: 70.2 years (to age 74.2, 11/2065).

Based on Life Care Plan by Caragonne and Associates, Inc.

Costs in columns 1 - 8 are stated in future value. Costs shown for each calander year are considered due on 9/1.

Annual real medical services growth rate (S) = 2.7% (20 and 10 year weighted average). ~

Annual real medical commodities growth rate (C) = 2.0% (20 and 5 year weighted average). ~ ~

Annual average year to year expected inflation growth rate (I) = 3.3% (SSA Intermediate projection).

-The last two columns show the annual and cumulative costs stated in present value. The nominal interest rate used for present value = 6.3%.

NOTE: This analysis is based on the information provided and presents the pertinent data and conclusions up to the date of this report, 9/1/98. If the status of any of the pertinent facts and assumptions change - the conclusions reported here may be changed accordingly.