Evaluation of the Low Vision Rehabilitation Demonstration

Provider Case Studies

Final Report

To
Centers for Medicare and Medicaid Services
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TABLE OF CONTENTS

EXECUTIVE SUMMARY

I. Introduction

The purpose of this report is to present the results of Brandeis University's evaluation of the implementation by low vision providers of the Low Vision Rehabilitation Demonstration (LVRD). The LVRD was authorized by Section 645 of the 2003 Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (P.L.108-173), which directed the Secretary to conduct "a study to determine the feasibility and advisability of providing for payment for vision rehabilitation services furnished by vision rehabilitation professionals ... (including) ... an orientation and mobility specialist, a rehabilitation teacher, or a low vision therapist." Conference report language from the House bill (H.R. 2673) specified a five-year demonstration and authorized first-year funding of $2 million. The Centers for Medicare and Medicaid Services (CMS) used these authorities to develop a demonstration to begin in 2006 with spending up to $2 million annually.

II. Traditional Medicare coverage of vision services

One of the overarching goals of the DHHS *Healthy People 2010* initiative is an "increase in the use of vision rehabilitation services by people with visual impairments," who include more than 3.6 million persons over age 40. The purpose of the LVRD is to see if Medicare can do more to support low vision (LV) rehabilitation services. These services tend to focus on promoting beneficiaries' functioning and independence rather than on medical cures for LV problems. Traditionally, funding for LV rehabilitation services has come from state, local, and charitable sources and has tended to focus on younger persons. These sources are not adequate for the increasing number of older persons with vision impairments.

Since the mid-1990s Medicare has allowed physical therapists, occupational therapists and speech therapists to bill for LV rehabilitation services, but it has limited the ability to bill for the services of three types of traditional vision rehabilitation professionals: low vision therapists (LVTs), who specialize in training patients to use optical devices such as magnifiers; vision rehabilitation therapists (VRTs), who focus on adaptation inside the home; and orientation and mobility specialists (OMSs), whose specialty is training in mobility outside the home. The services of these professionals could only be billed "incident to" a physician's services, i.e., using the physician's Medicare billing number, and only when the services were provided in the physician's office.

Until 2002 reimbursement for LV rehabilitation services was discretionary for Medicare Carriers, based on requests for reimbursement from providers; and such services were being reimbursed in only half of the states. A 2002 CMS memorandum directed Carriers to advise providers of the "incident to" coverage of LV rehabilitation services, including coverage of LVTs, VRTs, and OMSs. However, this order was rescinded in 2005,

leaving physical therapists, occupational therapists and speech therapists as the only covered therapy providers.

III. Demonstration design and timetable

The purpose of the Demonstration is to examine the impact of standardized national coverage for vision rehabilitation services by OTs, certified LVTs, VRTs, and OMSs under "general supervision" of physicians, including services provided in the patient's home. Six Demonstration regions were selected: the States of NH, WA, NC, and KS, and the cities of New York and Atlanta. Under the Demonstration, Medicare providers in these regions are allowed to bill for up to nine (9) hours of LV rehabilitation services over the life of a beneficiary (later changed to 12 hours per beneficiary per year). The Demonstration began on April 1, 2006, and is scheduled to continue through March 31, 2011.

CMS developed reimbursement rates for the Demonstration using a Relative Value Units (RVUs) analysis that started with existing RVUs for two OT services and then calculated rates for the LVT, VRT, and OMS based on their salaries compared to OTs. CMS actuaries also estimated that the marginal costs of the Demonstration would not exceed the $2 million per year Congressional limit, given the assumptions that only 0.4% of beneficiaries would use LV rehabilitation, that only half of their costs would be due to the Demonstration, and that beneficiaries could only receive 9 hours of LV rehabilitation in their lifetimes.

CMS awarded the contract to evaluate the Demonstration to Brandeis University. This report on provider experiences is one of two qualitative studies of the LVRD's implementation. The other is a study of nine beneficiaries who received LV rehabilitation services, which is contained in a separate report.

IV. The Provider Case Study

A. Methods

The implementation evaluation sought to answer a range of questions about the nature of and needs for LV rehabilitation services, the current system of providing services, and the Demonstration's approach to services. Stated broadly, questions included:

- What are LV rehabilitation services, and do Medicare beneficiaries need these services?

- What organizations are participating in the Demonstration; and what are the characteristics of their structures, finances, professionals, and clientele?

- What are the organizations' experiences in the Demonstration in terms of impacts on their structures and finances and the experiences of their professionals and patients?

- Given the findings, what are the implications for the delivery of Medicare LV rehabilitation services?

The study included case studies of five major organizations and four independent providers who either participated or considered participating in the Demonstration. Four of the major organizations were studied through site visits, and the other organization and the independent providers were studied through telephone interviews. All information was gathered between August and December of 2008. The five organizations included:

- Lighthouse International, New York City, NY
- Metrolina Association for the Blind, Charlotte, NC
- New Hampshire Association for the Blind, Concord, NH
- Center for the Visually Impaired, Atlanta, GA
- Community Services for the Blind and Partially Sighted, Seattle, WA

Individual respondents within these organizations included physicians, occupational therapists OTs, LVTs, VRTs, OMSs, billing managers, Demonstration coordinators, chief executive officers, chief financial officers, and/or other informants with knowledge of LV rehabilitation services in the sites.

In addition to the organizational case studies, the evaluators conducted telephone interviews with four individual LV practitioners who considered participating in the Demonstration. The sample, which was selected from lists of LV providers in the study regions supplied by professional associations, included one ophthalmologist, two optometrists, and one OMS.

B. Findings

1. LV needs and services

Informants said that the most common conditions among their Medicare LV patients were macular degeneration, glaucoma, and diabetic retinopathy. These and other conditions can result in symptoms such as blurred or distorted central vision, loss of peripheral vision, loss of vision detail, faulty color vision, and sensitivity to glare. A close examination of the areas and degrees of vision impairment and areas of remaining function is essential to prescribing LV rehabilitation services and devices.

2. Organizations participating in the Demonstration

a. Structural

The five organizations for the blind have many similarities in their LV rehabilitation services. All offer both services for the blind (persons with vision worse than 20/200) and services for persons with low vision (better than 20/200). All employ LV specialists, but they differ in terms of whether they have optometrists on staff (two of the

organizations) or use community optometrists (three of the organizations), and also whether they use OTs to provide LV rehabilitation (one of the organizations). All five organizations were well aware of the Demonstration since they were active members of the VisionServe Alliance, which had advocated for a demonstration of expanded Medicare coverage of LV rehabilitation services.

The optometrists and ophthalmologist are representative of an independent LV rehabilitation services model, under which doctors see LV patients as a small part of their practice. They typically sell LV devices and refer patients to OTs, who can bill Medicare for additional LV rehabilitation services. The OMS in the study sees LV clients in his private practice as a contractor or consultant to the state, nursing homes, and one of the associations for the blind participating in the Demonstration.

b. Financial

All five of the organizations for the blind finance most of their LV rehabilitation services through a combination of contracts from their state agency for the blind and charitable contributions and endowments. The latter allow them to subsidize some or all of the costs of LV exams, therapies, and devices for many if not most of their clients. Prior to the Demonstration, two of the organizations were billing Medicare for LV rehabilitation services and three were not.

At the time the Demonstration began, the two independent optometrists were billing Medicare using codes for LV consultations and extended service modifiers, which significantly enhance payment beyond a standard optometric exam. Both optometrists then made referrals to collaborating OTs, who billed for their own services. The clinic in which the ophthalmologist works was following the same model. The OMS in the sample was paid on an hourly basis ($75 to $100 per hour plus travel costs) for his contract and consultant work.

c. Providers and beneficiaries

The respondents learned of the Demonstration from their professional organizations, and all supported the expansion of Medicare coverage of LV rehabilitation services. However, they had a range of views about how far their agencies could or would move in the direction of becoming Medicare providers. On one extreme, Lighthouse International had already committed to becoming a Medicare provider. On the other extreme, the New Hampshire Association for the Blind decided to remain a contract and charitable provider and not to bill third parties. Instead, it bills for its LV specialists in the Demonstration through a contract with an eye care practice. Independent providers also wanted to expand their Medicare LV practice but found the terms and conditions of the Demonstration less attractive than regular Medicare, as described in the next section.

The barriers to Medicare beneficiaries' use of LV rehabilitation services in the regular Medicare system described by respondents included (1) access barriers due to beneficiaries’ distance from providers and problems traveling, (2) cost barriers due to

non-covered services and low income among beneficiaries with LV, and (3) lack of knowledge about LV rehabilitation services due to poor referral practices by eye care providers and denial of need on the parts of beneficiaries. Regarding the third point, the companion beneficiary case study report shows that the beneficiaries with LV problems who were interviewed did not know about LV rehabilitation services until they found a provider who referred them or they found the LV rehabilitation services by searching on the web or by chance (e.g., driving by and seeing the sign). The high profiles and charitable funds of the organizations for the blind help to overcome these barriers for clients in their service areas, but the respondents emphasized that these funds are limited.

3. The organizations' experiences in the Demonstration

a. Structural

Each of the five organizations for the blind developed a Demonstration model that allows them to serve Medicare beneficiaries with LV rehabilitation services, bill for the services, and receive reimbursement. The biggest change in service delivery was converting to what these organizations called "the medical model." This included creating forms and procedures that meet Medicare guidelines, which staff contrasted to their traditional practice as being oriented more toward "training" than "teaching." It also meant providing fewer hours of service and requiring more documentation about achievement of more specific goals.

Only three of the five sites (Atlanta, NH, and NC) offer the full range of LV rehabilitation services through the Demonstration. The NY City and WA sites do not bill Medicare for LV rehabilitation services outside of their offices. The NY City site does not bill for outside services due to a state licensure barrier to their delivering services in the community. The WA site does not bill for outside services due to their optometrist's unwillingness to sign care plans for patients she has not seen. Most patients served in the community at this site do not travel to agency offices and are therefore are not seen by the optometrist. Further, the NY City site is providing most LV rehabilitation services through OTs rather than the newly covered LV specialists. Other barriers to providing LV rehabilitation services through the Demonstration included (1) a lack of understanding of how to implement a Medicare demonstration, (2) low enrollment rates at most sites despite attempts to increase referrals, and (3) the Demonstration's restrictions to 12 hours of service per year, which especially affects patients who need OMS services, such as training to use a long cane.

In contrast to the large organizations for the blind, none of the independent LV providers was able to develop a model to deliver LV rehabilitation services through the Demonstration - either in partnership with the medical institutions with which they worked, or in their private practices. One optometrist did try to join the Demonstration through his private practice, but he quit after he could not get his bills paid, as described below. The OMS was initially excited about the Demonstration, but he reported that poor marketing material provided by his professional organization made it difficult to describe the Demonstration to eye doctors.

b. Financial

Respondents were unanimous that a major flaw in the Demonstration is the low rates paid for the newly covered LV rehabilitation specialists and the fact that OTs can bill at higher rates outside the Demonstration. The rates for the LV specialists were reportedly far below the organizations' costs, and the organizations could participate in the Demonstration only by subsidizing costs with charitable funds.

Medicare payment rates in NY City for 2008 (provided by the NY City site) illustrate the differentials for a 15-minute service block under the Demonstration payment rate versus regular Medicare. In regular Medicare, OT services are reimbursed between $27.31 and $86.01 per 15-minute block. In the Demonstration, OT services are reimbursed at $25.98. The services of the OMS, LVT, and VRT are reimbursed between $10.54 and $12.01 per 15-minute block. In contrast to these figures showing traditional LV specialists being reimbursed at less than half the rates for OTs, the informants contended that the LV rehabilitation specialists are nearly as highly paid as OTs. Salary data provided by the sites, as well as other source data, tend to show that salaries for OTs and LV specialists are not nearly as disparate as these rates (see Appendix D).

Another reimbursement shortfall in the Demonstration affecting some sites and independent providers is that no new payment categories were included for the optometrist's LV exam. Because Congress did not specify that payment approaches for optometrists' services be changed under the Demonstration, CMS did not have the authority to change existing categories or reimbursement policies. Respondents at some sites reported that their Carriers would not consistently accept extended billing codes, since use of the extended codes is supposed to be unusual. However, longer exams are routine in LV assessments, and some Carriers will not accept this. One of the independent optometrists reported that he had recently quit providing LV exams, leaving a large portion of his rural state without a LV provider. He quit because his Carrier changed, and the new Carrier would not pay for the extended codes.

Reimbursement rates in the Demonstration were also a problem for the OMS, who reported that the low hourly rate is much less than his usual charges. Also, there is no coverage for mileage, travel time, or time to write the required reports. The low payment rates were also a barrier to setting up relationships with doctors, since it would be extra work for them and inadequate revenue to pay for OMS services.

Besides problems with low payment rates, two of the large organizations had difficulties getting their bills paid by their Medicare Carriers. For the NC site, the problems related to lack of clear guidance on Demonstration billing procedures and delays in getting a Medicare provider number. At the NYC site there was a software incompatibility problem with a Carrier serving four Boroughs (but not the Carrier in the fifth). At both sites the Carrier was not familiar with the Demonstration billing codes and initially rejected them. Rectifying the problems took extensive administrative time and also delayed payment for as much as a year. Similarly, the independent optometrist who

billed for Demonstration services quit after the Carrier rejected bills twice. He paid the OT out of pocket and went back to having the OT bill outside the Demonstration, since the rates are better and the bills get paid.

The combination of disincentives to fully participate due to low Demonstration reimbursement rates and billing/payment problems appear to have held down the amounts reimbursed by Medicare to the participating sites. Two years into the Demonstration, two of the large organizations had been paid less than $500 for Demonstration services, and the other three had been paid between $10,000 and $18,000.

c. Providers and beneficiaries

The respondents value having a national demonstration that recognizes the importance of LV rehabilitation services to Medicare beneficiaries. They point to successful conversion of their organizations and professional practices to work within the "medical model." However, they fear that the Demonstration design limits the opportunity for independent eye care professionals to participate, since only organizations with charitable resources can afford the start-up costs and operating subsidies.

The respondents described a similar range of impacts of the Demonstration on beneficiaries. The Demonstration has increased access to LV rehabilitation services for beneficiaries in the major organizations' service areas, but it did not increase access through independent providers. The lack of coverage for equipment, devices, and supplies was cited as a major problem for beneficiaries, who generally have low incomes, as well as other expensive health care needs. The providers pointed out that obtaining devices is essential to addressing most LV patients' needs, and charity is not a reliable solution for an expanded benefit.

V. Summary

There are limits to the conclusions that can be drawn from case studies of five organizations and four independent providers. It may be that other providers in other states would have handled the opportunity to provide services under the Demonstration protocol differently. However, there is reason to believe that the major organizations that did participate in the Demonstration states may be among the most capable LV providers in the nation. Therefore, it may be that case studies of these organizations present best-case scenarios.

The case studies show that there are at least two models for delivering LV rehabilitation services: large organizations for the blind that exist in some urban areas in some states, and independent optometrists, ophthalmologists, and occupational therapists who work in private practices and LV clinics in medical centers. The also found evidence from the study that Medicare beneficiaries have needs for LV rehabilitation services, that there are providers who can deliver LV rehabilitation services, that Medicare can pay for these services, and that the demand for and costs of these services are not very large.

I. Background on the Demonstration

A. Introduction

The purpose of this report is to present the results of Brandeis University's evaluation of the implementation of the Low Vision Rehabilitation Demonstration (LVRD) by low vision providers. The LVRD was authorized by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (P.L.108-173). Section 645 of the Act states:

> (1) STUDY. The Secretary shall conduct a study to determine the feasibility and advisability of providing for payment for vision rehabilitation services furnished by vision rehabilitation professionals.
>
> (2) REPORT. Not later than January 1, 2005, the Secretary shall submit to Congress a report on the study conducted under paragraph (1) together with recommendations for such legislation or administrative action as the Secretary determines to be appropriate.
>
> (3) VISION REHABILITATION PROFESSIONAL DEFINED. In this subsection, the term ''vision rehabilitation professional'' means an orientation and mobility specialist, a rehabilitation teacher, or a low vision therapist.

Conference report language from the House bill extended the period for the Demonstration and added funding (U.S. House of Representatives, 2003):

> This demonstration project should be conducted over a period of five years beginning July 1, 2004. The Secretary shall expend from available funds appropriated to him in FY 2004, including transfers authorized under existing authorities from the Federal Supplementary Insurance trust Fund, an amount not to exceed $2 million for FY2004 to carry out this demonstration project.

In 2005 the Centers for Medicare and Medicaid Services (CMS) requested approval from the Office of Management and Budget to implement the Demonstration beginning in 2006 (Centers for Medicare and Medicaid Services, 2005a). CMS interpreted the authorization language to mean that the Secretary was authorized to spend up to $2 million annually to conduct and evaluate the Demonstration.

B. Traditional Medicare coverage of vision services

1. <u>Vision impairment and vision rehabilitation services</u>

Vision impairment is a significant and growing problem in the United States. In 2007, it was estimated that more than 3.6 million Americans age 40 and older had some level of vision impairment (including blindness) at a total cost of $51.4 billion to the U.S. economy (Prevent Blindness America, 2008). The prevalence of impairment increases quickly after age 75 (Prevent Blindness America, 2008) and is expected to double overall during the next 30-years (Centers for Disease Control and Prevention, 2006). As a part of its *Healthy People 2010* initiative, the U.S. Department of Health and Human Services has set as one of its overarching goals an "increase in the use of vision rehabilitation services by people with visual impairments" (U.S. Department of Health and Human Services, 2000).

The primary purpose of low vision (LV) rehabilitation is to provide services to people with moderate-to-severe visual impairment skills that will help them live independently and improve their quality of life. These services include teaching skills such as meal preparation, shopping, and money management, as well as by providing training in safety procedures. Rehabilitation is also aided by enhancing remaining vision through the use of and training in devices, equipment and supplies, such as magnifiers, lights, prisms, telescopes, and large-font printed material. Vision rehabilitation may help prevent falls, burns and other accidents that may occur for vision-impaired people (Association for Education and Rehabilitation of the Blind and Visually Impaired, 2008). The traditional vision rehabilitation professionals work in three job categories: Vision Rehabilitation Therapists (VRTs - also called Vision Rehabilitation Teachers), Low Vision Therapists (LVTs), and Orientation and Mobility Specialists (OMSs).

In the mid-1990s, policy analysis pointed to shortcomings in the capacity of existing vision rehabilitation services to meet the needs of an increasing population of older people who were experiencing vision impairment. First, many state and private agencies required clients to be legally blind to receive assistance (Mogk, L., Watson, G., & Williams, M., 2008). Second, rehabilitation programs were designed to address the needs of younger clients. Third, most programs operated with small budgets and served only a small number of clients. Given the epidemiology of impaired vision among elders that shows that the number at risk is in the millions and continues to grow (Prevent Blindness America, 2008), there was growing concern that the LV rehabilitation system was not ready to meet the needs of older people with vision impairments.

2. Initial Medicare coverage of vision rehabilitation services

Beginning in the mid-1990s, ophthalmologists and optometrists successfully argued that Medicare regional Carriers should add codes for visual impairment to the list of existing Medicare rehabilitation reimbursement codes. This first occurred in Kansas, Michigan, Florida and Illinois (Mogk, L. et al., 2008). At that point, only three groups of professional therapists were recognized by Medicare and given provider numbers to be used for independent service provision: physical therapists (PTs), occupational therapists (OTs) and speech therapists. Traditional low-vision rehabilitation therapists (LVTs, VRTs, and OMSs) were not recognized by Medicare. In order for these three groups of professionals to be reimbursed for their services, they were required to work directly with

physicians. At the time, their work could be billed to Medicare "incident to" a physician's services (using the physician's Medicare billing number), and their rehabilitation services could be provided only at the physician's practice location (Mogk, L. et al., 2008). By 2002, Medicare was providing reimbursement for low vision rehabilitation services in 26 states under the "incident to" provision.

In May of 2002, CMS formalized Medicare coverage of LV rehabilitation through a Medicare Program Memorandum (Transmittal AB-02-078, issued May 29, 2002), which made reimbursement for LV rehabilitation a local coverage decision for Medicare Carriers (Centers for Medicare and Medicaid Services, 2005a). The Memorandum directed Carriers to inform physicians and other providers about the availability of medically necessary rehabilitation services for visually impaired beneficiaries. The Memorandum stated that LV rehabilitation could be covered when delivered under the direct supervision of the physician or, "incident to" a physician's professional service by OTs, PTs, or other LV rehabilitation professionals. Under "incident to" rules the physician must be present "on the premises" during the delivery of LV rehabilitation services.

In June 2005, CMS issued a clarification to Carriers that removed LVTs, VRTs, and OMSs from the list of providers that could be reimbursed under the "incident to" provisions (Mogk, L. et al., 2008). As of July 25, 2005, LV rehabilitation could be provided only by OTs and PTs under direct supervision, or "incident to" a physician's professional services, but not by certified vision rehabilitation professionals and not in the patient's home (Centers for Medicare and Medicaid Services, 2005a).

C. Legislative authorization to demonstrate expanded coverage

Congressional interest in testing expanded coverage of LV rehabilitation services under Medicare was evident in bills introduced in both the House and the Senate between 1999 and 2003. They included:

- The Medicare Vision Rehabilitation Coverage Act of 1999 (H.R. 2870) was introduced on September 15, 1999 by Representative Capuano of Massachusetts and cosponsored by 120 other House Members. It was meant to "amend title XVIII of the Social Security Act to provide coverage of vision rehabilitation services under the Medicare Program." No action was taken on this bill.

- The Medicare Vision Rehabilitation Services Act of 2001 (H.R. 2484) was introduced on July 12, 2001 by Representatives Capuano of Massachusetts and 135 other House Members. It was meant to "amend title XVIII of the Social Security Act to improve outpatient vision services under Part B of the Medicare Program." A similar bill was introduced in the Senate (S. 1967) on February 26, 2002 by Senator John Kerry of Massachusetts along with 13 cosponsors. No action was taken on either bill.

- The Medicare Vision Rehabilitation Services Act of 2003 (H.R. 1902) was introduced on May 1, 2003 by Representative Foley of Florida and had 79

- On December 8, 2003, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 became Public Law 108-173. Section 645 of the law authorized a demonstration study relating to vision impairments. The Conference Report on the House bill (H.R. 2673) authorized funds for the Demonstration. These two bills were described in Section A of this report on page 12.

D. Demonstration design and timetable

The bill introduced by Senator Sununu in 2003 (S. 1095) that would have provided low vision rehabilitation services to Medicare beneficiaries was used by CMS as the "blueprint" for the LVRD (Centers for Medicare and Medicaid Services, 2005a). CMS entered into a contract with the Cornell University Institute for Policy Research to assist in the detailed design of the Demonstration. In addition, CMS received input from stakeholder groups, such as the National Vision Rehabilitation Association.

According to the final design, the purpose of the Demonstration is to examine the impact of standardized national coverage for vision rehabilitation services provided in the patient's home by physicians, OTs, certified LVTs, VRTs, and OMSs (Centers for Medicare and Medicaid Services, 2006). The Demonstration allows the latter three previously unqualified professionals to be reimbursed by Medicare for rehabilitation services under "general" medical supervision, that is, the services could be provided outside the office setting under a care plan signed by a physician.

To implement the Demonstration, CMS developed reimbursement rates for LV rehabilitation services using a Relative Value Units (RVU) analysis that started with existing RVUs for two OT services (sensory integration and self care/home management) (Centers for Medicare and Medicaid Services, 2005b). Next, salary data were collected for OTs, VRTs, OMSs, and LVTs. The ratios of the salaries of the latter three groups to the salaries of OTs were used to calculate reimbursement rates for three new LV specialists. The resulting reimbursement rates for 15-minute service units for the four groups in 2005 were as follows:

OT: $28.04
OMS: $14.97
LVT: $14.97
VRT: $12.81

Because Congress did not specify that payment approaches for optometrists' services be changed under the Demonstration, CMS did not have the authority to change existing categories or reimbursement policies for optometrists. Therefore, participating optometrists used existing billing codes. Also, existing reimbursement codes for OTs, which paid at higher rates than the Demonstration's OT code, remained available.

The final Demonstration design includes six geographic areas that take into account the diversity of the population in need, cost, and available professional resources. The six areas are the states of New Hampshire, North Carolina, Washington, and Kansas, and the metropolitan areas of New York City and Atlanta, Georgia. In Demonstration areas, CMS waived an existing "incident-to" rule in order to enable LV specialists to provide physician-prescribed LV rehabilitation services in beneficiaries' homes or other appropriate settings under general physician supervision. These specialists must be certified by the Academy for Certification of Vision Rehabilitation Professionals and may only provide services specified in an individualized written plan of care developed by a qualified physician or occupational therapist in private practice (Centers for Medicare and Medicaid Services, 2006).

In order to participate in the LVRD, beneficiaries must:

- Be enrolled in Medicare Part B fee-for-service coverage.
- Not be enrolled in a Medicare Advantage plan.
- Have an established medical diagnosis of moderate to severe and profound visual impairment (20/60 to 20/200 vision).
- Have an established individualized plan of care written by a physician (including ophthalmologist or optometrist) or occupational therapist in private practice (must be reviewed every 30-days).
- Be able to derive benefit from vision rehabilitation therapy.
- Live in one of the Demonstration areas.

CMS actuaries estimated that these Demonstration areas and eligibility criteria would yield approximately 147,000 Medicare beneficiaries who might benefit from LV rehabilitation services (Centers for Medicare and Medicaid Services, 2005a). This was based on an estimate that 4.7% of the Medicare population would be eligible for LV rehabilitation services. Actuaries also estimated that only 7.8% of the eligible beneficiaries would use LV rehabilitation services and that only half of the Medicare costs incurred would be due to the Demonstration, primarily due to a small increase in the number of providers and to the provision of services in the home. Given these assumptions, the reimbursement rates for new Demonstration services, and the initial limit on Demonstration services to 9 hours per lifetime, the actuaries estimated that the Demonstration costs would not exceed the set limit of $2 million per year.

The Demonstration began on April 1, 2006, and is scheduled to continue through March 31, 2011, for a total of five years (Centers for Medicare and Medicaid Services, 2006).

E. Evaluation design and revision

In September 2005 CMS awarded a contract to evaluate the Demonstration to Brandeis University in partnership with the New England Research Institute. The initial LVRD evaluation study included both qualitative and quantitative assessments. The quantitative study included a quasi-experimental study of utilization and costs using claims data. The study also included a beneficiary survey to determine satisfaction and outcomes, and a

qualitative component of multiple site visits to understand the implementation process (Bishop, C. E. et al., 2004).

Due to the low uptake of the Demonstration, in early 2008 CMS requested that the initial evaluation design be changed to focus on qualitative studies of the LVRD's implementation. A redesign calling for case studies of nine organizations and nine beneficiaries with LV conditions was finalized in June 2008. The methods and findings from the evaluation of the implementation of the Demonstration model by LV providers are described in the next chapter. The findings from the provider case studies are found in a separate report (Leutz et al., 2009).

II. The Provider Implementation Evaluation

A. Methods

1. Study questions

The implementation evaluation sought to answer the following questions about the nature of and needs for LV rehabilitation services, the current system of providing LV rehabilitation services, and the Demonstration's approach to LV rehabilitation services. The case studies are organized to answer these questions.

a. LV needs and services

1. What are Medicare beneficiaries' needs for LV rehabilitation services?
2. What are LV rehabilitation services?

b. Organizations participating in the Demonstration

1. Structural

(a) The sponsoring organization/entity. What are the characteristics of the organizations participating in the Demonstration by profit status, size, main product/service lines, usual clients and referral sources, geographic area served/transportation, general sources of revenue (including insurance, government, private payment), and other resources?

(b) Doctors' practice - What are eye doctors' usual clients by age and needs? What are their assessment practices, referral and treatment regimens?

(c) LV specialists' practice - What are LV specialists' usual clients, assessment practices, referral patterns, and treatment regimens?

2. Financial

How are the sponsoring organizations usually paid in terms of insurance coverage, reimbursement levels, and public support?

3. Providers and Beneficiaries

(a) Managers and professionals. What are the usual product and service orientations of managers and professionals prior to participating in the Demonstration, e.g., medical vs. rehabilitation vs. education? What are their professional training and status?

(b) Beneficiaries. How do individuals with LV needs obtain service outside of the Demonstration? What roles do state agencies for the blind and charitable contributions

play? What barriers do service users face in terms of ability to pay and to travel? How does insurance cover LV rehabilitation services, and can beneficiaries use it?[1]

c. Organization's experiences in the Demonstration

1. Structural

(a) Service delivery in the Demonstration. Is service delivery in the Demonstration different from prior practices in assessment, treatment plans, referral patterns, place of service (home versus office)? Are there changes over time? How?

(b) Facilitators and barriers. Did the Demonstration facilitate or create any barriers to service delivery? How were barriers addressed?

2. Financial

(a) Reimbursement. How did payment rates for Demonstration compare to existing payment codes? What were the effects of Demonstration rates on utilization?

(b) Billing. What were the challenges in Medicare billing and getting paid by the fiscal intermediary for Demonstration services? Did providers have other sources of revenue for LV rehabilitation services during the Demonstration? If so, which ones, how significant were they, and what was their relationship to Medicare?

(c) Facilitators and barriers. Did the Demonstration facilitate or create any barriers to reimbursement and billing? How were barriers addressed?

3. Providers and Beneficiaries

(a) Managers and professionals. Did the Demonstration affect providers relative to their product/service orientation or their professional training and status? How did the reality of Demonstration compare to provider expectations?

(b) Beneficiaries. Did the Demonstration affect the status of beneficiaries as state clients or as charitable cases. Did it affect their ability to pay and to travel, or the usefulness of insurance coverage?

[1] Information about beneficiaries is second-hand through the views of staff, since beneficiaries were not interviewed for the organizational case studies.

d. Summary

1. Current system versus the Demonstration

How does provider interest in providing LV rehabilitation services to older persons in the current environment compare to interest in the Demonstration? Is there sufficient capacity to provide LV rehabilitation services under the Demonstration model?

2. Quality

Given this ideal system of care, are Medicare beneficiaries receiving the appropriate amount and type of vision support services?

2. Data collection and analysis methods

The methodology for this qualitative study included case studies of five major organizations and four independent providers who either participated or considered participating in the Demonstration, and case studies of nine beneficiaries who used LV rehabilitation services. The methods and findings for the beneficiary case study are included in a companion report (Leutz et al., 2009). Each of the research activities for this report is detailed below.

a. Stakeholder interviews and review of background information

Prior to undertaking the case studies, Brandeis researchers collected and analyzed relevant background information on the nature of LV rehabilitation services, the provision of LV rehabilitation services under standard Medicare, and the development of the Demonstration. The researchers also spoke informally with two prominent optometrists and an official from the Academy for Certification of Vision Rehabilitation and Education Professionals. These individuals provided additional background information on LV rehabilitation services, Medicare and LV rehabilitation services, and the Demonstration. They also provided valuable leads to independent LV provider resources to be considered in the case studies.

b. Case study methodology

The overall goal was to obtain an understanding of the care delivery process and organizational perceptions of the LVRD demonstration. CMS provided Brandeis researchers with the names of six major non-profit organizations which were actively participating in one of the six Demonstration areas. After reviewing information obtained from the organizations and conducting an introductory interview with the top manager of each organization, the evaluation team, in consultation with the CMS Project Officer, decided that the following five organizations would be included as case studies:

- Lighthouse International, New York City, NY
- Metrolina Association for the Blind, Charlotte, NC

- New Hampshire Association for the Blind, Concord, NH
- Center for the Visually Impaired, Atlanta, GA
- Community Services for the Blind and Partially Sighted, Seattle, WA

The sixth organization, Envision of Wichita, KS, was not included in the case study. This is because it had not billed for Demonstration services for more than a year. In addition, most of the staff employed during the Demonstration no longer worked with the organization.

To conduct case studies of these organizations, a list of potential staff members to be interviewed was developed, and interview guides were developed for each staff category. Target respondents included physicians, OTs, LVTs, VRTs, OMSs, billing managers, Demonstration coordinators, chief executive officers, chief financial officers, and/or other informants with knowledge of LV services at the sites. Open-ended questionnaires were developed, and reviewed and approved by CMS. The interview guides are found in Appendix A. Brandeis staff conducted site visits at the first four participating organizations listed above. Sites visits were conducted in teams of two and occurred over two days. The interviews at the fifth site were conducted by telephone. The site visits were conducted between August and November 2008.

In addition to the organizational case studies, it was proposed to include case studies of Demonstration experiences of four individual LV practitioners. The rationale for including these providers is that independent providers are much more evenly distributed geographically than the large non-profit organizations for the blind, which are found only in selected urban areas. Understanding independent providers' knowledge of and interest in the Demonstration provides a broader perspective on its feasibility.

In order to identify independent providers who provide LV rehabilitation services, the evaluators obtained a list from the Academy for Certification of Vision Rehabilitation and Education Professionals of 431 independent optometrists and ophthalmologists who self-identified as low vision services providers and practice in the six Demonstration states or cities. The 80 providers whose email addresses were included on the list were sent emails regarding the evaluation. In the email the providers were asked if they offered LV rehabilitation services, whether they had heard of the Demonstration, and whether they had either tried or considered offering LV rehabilitation services under the Demonstration. Table 1 shows the numbers on the lists, the number who were emailed, and the number of positive responses in the six Demonstration areas. This outreach yielded two individuals who might be included in the sample of independent providers.

TABLE 1: Independent Provider Survey Sample

	Names on list	Number with emails	Number responding	Number of responders providing any LV services	Number who provide LV services and considered the Demonstration
Kansas	88	16	2	0	0
Atlanta	10	4	1	1	1
New York City	104	29	4	1	0
New Hampshire	26	7	1	1	1
North Carolina	143	20	4	3	0
Washington	60	6	1	0	0
Total	**431**	**82**	**13**	**6**	**2**
Percents	100%	19%	16% (of those with emails)	7% (of those with emails)	2% (of those with emails)

In addition to the outreach through email, the evaluators contacted LV providers whose names were provided by the key informants who were interviewed. This outreach yielded three additional LV providers based in NH, NC, and KS, for a total of five providers from the various outreach efforts. Since five provider organizations were already in the sample, and the total provider sample was limited to nine, the evaluators selected one ophthalmologist, two optometrists, and one OMS from the list to participate in a telephone interview. The four providers operated in Atlanta, NC, NH, and KS. The interviews lasted between 20 minutes and 50 minutes. The interview guides for these providers are found in Appendix B. The interviews with the independent providers were conducted in November and December 2008.

c. Human subjects protections and review

Data collection, analysis, and reporting were designed to ensure that anonymity of the individual respondents was maintained. The procedures and the interview guides were presented to the Brandeis University Institutional Review Board and were approved under the "exempt" category.

d. Analysis

The background data and key informant interviews were reviewed and synthesized. Interviews from each participating organization were organized by evaluation question and refined into narratives that included the full content, with attribution by individual

and provider type. These narratives were then compared to identify patterns and themes concerning study questions that were common across more than one site, as well as unique to individual sites. The most outstanding common findings are presented in this section of the report. The narratives for each site have been shortened to lengths that reference common findings and highlight important unique findings. These narratives are found in Appendix C.

B. Findings

The findings from the case studies are presented in two ways. First, the body of the report synthesizes and summarizes the findings of the case studies of the five large provider sites and the four independent providers. Second, the individual case studies are provided in Appendix C. In both sections, findings are reported in a format that follows the outline of the study questions.

1. Low vision needs and services

a. Demonstration sites' views of Medicare beneficiaries' needs for LV services

Staff at the Demonstration sites reported that the most common conditions among their Medicare LV patients were macular degeneration, glaucoma, and diabetic retinopathy. Other conditions seen at the practices were stroke-related eye problems, damage from accidents or mistakes during eye surgery such as cataract removal, and detached retinas. The most common conditions were reported to have the following effects on vision:

- Macular degeneration results in blurred or distorted central vision, loss of vision detail, and distortion of vision but with generally intact peripheral vision.
- Glaucoma results in loss of peripheral vision, and blurred or foggy vision.
- Diabetic retinopathy results in blurred vision as well as faulty color vision and sensitivity to glare.

Individuals with these conditions were said to vary considerably in the manner and degree in which their vision was affected, primarily due to the stage of disease. Therefore a very close examination of the areas of vision impairment and areas of remaining function is essential to prescribing LV rehabilitation services and devices.

b. Organizations' delivery of Low Vision services

There was a great deal of similarity across Demonstration sites and independent providers in their descriptions of how LV rehabilitation services work, including the roles of optometrists, LVTs, VRTs, OMSs, OTs, and social workers. Not all sites used all of these professionals. They also varied in the emphasis and sequence of their use. Details of the roles and activities of professionals who provide LV rehabilitation services are provided in the sections (b) Doctors' practice and (c) LV specialists' practice on pages 27-28.

2. Organizations participating in the Demonstration

1. Structural

(a) The sponsoring organizations/entities. The case studies were conducted in five of the six large, non-profit organizations for the blind and visually impaired located by the evaluators in Demonstration states and areas.

(1) Organizations for the blind. The five organizations provide LV rehabilitation services for the blind (persons with vision worse than 20/200) and for persons with low vision (better than 20/200). To provide LV rehabilitation and service coordination, all of the organizations employed VRTs, LVTs, OMSs, and social workers. Two of the organizations retained optometrists on staff to provide LV exams. One of the organizations employed an optometrist on a per-diem basis to provide exams. The remaining two organizations collaborated with independent optometrists who used the organizations' exam rooms to conduct LV exams. All had screening and intake staff who used referral information, including eye exams from referring doctors, to provisionally assign a new client to one the organization's programs, including the LV rehabilitation program or the organization's contract with their state agencies for the blind (four of the five organizations), which cover the full range of LV rehabilitation services and devices.

Brief overviews of each organization follow below. Details of each can be found in Appendix C.

- Center for the Visually Impaired (CVI), Atlanta, GA. CVI was founded in 1962 as a vocational rehabilitation service agency. CVI operates out of an office in downtown Atlanta but serves residents throughout the state. Programs include a LV clinic operating two days a week, home-based and community-based rehabilitation for adults, youth services, early childhood and pre-school services, support groups, and a retail LV equipment and supplies store. Two optometrists working on a per diem basis provide eye exams in the LV clinic are provided to about 600 patients per year.

- Lighthouse International (LI), New York, NY. LI was founded in 1905 and now operates in a 15-story headquarters building in mid-town Manhattan. Most of LI's clinical services are delivered through a Diagnosis and Treatment Center licensed under NY State Article 28. The Center includes the LV practice, podiatry, social work, ophthalmology, optometry, primary care, and LV optometric dispensing. There is also a music clinic, an integrated preschool, and early intervention program, a geriatric clinic, a new diabetes center, and a mental health service center. About 5,000 patients a year are seen in all programs. Low vision facilities include several optometric exam rooms, LVT offices, and a laundry and a kitchen equipped for training purposes. There are several optometrists specializing in LV on staff.

- Metrolina Association for the Blind (MAB), Charlotte, NC. MAB was established in 1934. It owns a business that produces Braille documents for banks and credit card companies, allowing them to send Braille statements to their customers. The MAB headquarters and the Braille business are located near downtown Charlotte. MAB currently provides LV exams to about 350 patients a year in a satellite clinic staffed by a per-diem optometrist two days a week. Prior to the Demonstration, LV patients were seen by independent optometrists in a small LV exam room in the headquarters.

- Community Services for the Blind and Partially Sighted (CSBPS), Seattle, WA. CSBPS was founded in 1965 and serves four counties in Washington State. The central office has a LV clinic and retail LV equipment and supplies store, and CSBPS also operates two satellite LV clinics. About two-thirds of CSBPS's 1,400 annual LV clients are seen in the clinics by on-staff optometrists, and one-third are seen exclusively though home-based services.

- New Hampshire Association for the Blind (NHAB), Concord, NH. NHAB was founded in 1912 and serves residents across NH. Their core focus is rehabilitation and teaching. They provide LV rehabilitation services to nearly 1,500 clients per year at their Concord headquarters or in clients' homes. The headquarters includes an optometric exam room, LVT offices, a kitchen for training, and rooms for group-based services. NHAB does not employ or contract with optometrists but rather invites independent optometrists to conduct LV exams in its Concord office. NHAB also operates a computer lab, which supports new technological advances for people who are blind and visually impaired.

All five of the major organizations participating in the Demonstration were active in the VisionServe Alliance (previously know as the National Council of Private Agencies for the Blind and Visually Impaired), which originally advocated for the demonstration of expanded Medicare coverage of LV rehabilitation services. During the site visits, organizational leaders described their motives for participating, which included a recognition of their inability to address the rising needs for LV rehabilitation services among Medicare beneficiaries using their existing resources and service models. Contracts with state associations for the blind are limited in funding and, except in NH, do not include services for those with vision problems short of blindness. The goals of the Alliance included expanding Medicare reimbursement of optometric and vision rehabilitation services to include the full range of LV rehabilitation services and providers, and addressing inconsistencies in Medicare payment policies in different areas of the country. The leaders of the participating organizations reported that the shortfalls in coverage of LV rehabilitation services and the inconsistent policies leave beneficiaries with inadequate access and coverage.

The organizations saw the Demonstration as a chance to emphasize the value of LV rehabilitation services and to show how these services can be covered by Medicare. In addition, the Demonstration promised an opportunity to develop medical models for LV organizations and to expand the access to LV rehabilitation services. When the

Demonstration design was published, the organizations reported disappointment with the payment rates for LV specialists and the limits on service hours. They all committed their organizations to participating, despite what they viewed as unfavorable financial incentives. They all expressed doubt about whether independent LV providers would participate.

(2) Independent providers. The independent providers interviewed for the study confirmed the organizational providers' expectations of limited participation in the Demonstration by this group. First, independent LV providers were not easy to locate in the Demonstration states and cities. The evaluators' email message to 82 optometrists who self-identified to their professional organization as LV providers yielded only a 16% response rate; and of the 13 responders, only 6 affirmed that they provided LV rehabilitation services. All six of them knew about the Demonstration, but only two considered participating. Outreach conducted by the evaluation team through other sources yielded three other independent providers who knew about the Demonstration and considered participating for a total of five providers who were at least interested in participating. From the five the evaluators chose the four that would include as many Demonstration locations as possible. The resulting case study sample included one ophthalmologist, two optometrists, and one OMS. Two of them made efforts to try to participate in the Demonstration. Their practices were located in Atlanta, NH, KS, and NC.

According to informants interviewed in preparation for the case studies (two prominent optometrists and an official at the Academy for Certification of Vision Rehabilitation and Education Professionals), independent providers, primarily optometrists, represent a more common approach to providing LV rehabilitation services than the large non-profit organizations for the blind covered in the other case studies. Independent practitioners are more evenly distributed around the country and within states, and their participation in the Demonstration would make the expanded LV team envisioned in the Demonstration model more widely available to beneficiaries.

The independent practitioners interviewed confirmed the existence of this independent LV rehabilitation services model. The two optometrists in the sample saw one to six LV patients a week in their private practices, and one of them also saw another six to eight patients a week in a LV clinic in his academic practice. The ophthalmologist saw LV patients in a LV clinic in his academic practice. In their private practices, the two optometrists billed Medicare for their LV exams, and they referred patients to OTs for additional LV rehabilitation. These OTs billed Medicare using their own provider numbers. In their clinic practices, the services of the optometrist and the ophthalmologist were billed by their clinics. The OTs to whom they referred either billed using their own provider numbers, or the organizations for whom the OTs worked billed Medicare for the OT services. The OMS in the study saw LV clients in his private practice as a contractor or consultant and did not bill Medicare.

(b) Doctors' practice. A low vision exam by an optometrist is the service hub for four of the five LV provider organizations, the independent optometrists, and the academic LV

clinics. The LV exam takes 45-60 minutes. This is two or three times longer than an optometrist's standard eye health exam and refraction. It can take even longer if there is no LVT on-site (as is the case typically among independent providers), and the optometrist has to show the patient the devices and do training in their use. Most organizations participating in the Demonstration require patients to have a referral from a doctor in order to be seen in the LV service. This was also true for the independent optometrists interviewed. The LV optometrist begins by looking at the referring doctor's records, collects a medical history, assesses co-morbidities, determines the degree and nature of vision loss and its effect on the patient's daily living. The exam is performed in an office and includes testing of acuity, peripheral vision, the need for standard glasses/contact lenses, sensitivity to glare, and ability to see contrast and color. Glaucoma tests, a retinal exam, and an examination of the anterior eye structure are also typical (Jutai et al. 2005).

Next, the optometrist introduces the patient to appropriate devices to address problems, for example, magnifiers, bright lights, telescopic devices, and/or a prism to direct to edge-of-field vision to the center. The type of device depends on the patient's stated goals, for example, to be able to read the newspaper or to watch TV. Depression can also affect a patient's need, in which case care planning also involves addressing/factoring in non-LV issues. Providers who were interviewed emphasized that it is important for the optometrist to provide a positive and hopeful view to patients who have been discouraged about their vision, and this can also extend the time of the exam. In the large organizations, if the LVT is available, the optometrist completes the care plan and sends the patient to the LVT for training. Among the independent providers, the next step is a referral to an OT.

(c) LV specialists' practice. The LV specialists practicing in the LV rehabilitation services programs include low vision therapists, vision rehabilitation therapists, orientation and mobility specialists, occupational therapists, and social workers.

(1) Low vision therapist (LVT): The LVT helps patients try out and learn to use specific devices to enhance vision. When the LVT gets a referral s/he looks at the optometrist's device recommendations and works with the patient to learn to use the devices. The LVT's office is typically the place where devices are stored, so it is convenient to find and choose the best one for the patient. It is often an iterative process between the optometrist and the LVT in determining which device makes the most sense. The LVT may discover something the optometrist missed, in which case s/he would go back to the optometrist for an alternate prescription. Depending on the model in place in a LV organization, the LVT may also refer to social work, the OMS, the VRT, psychotherapy, diabetic education, etc. In other organizations, this may be the job of the social worker or the VRT if they are the initial professional who has time to learn about the patient's individual and home situation. A part of the LVT's role is to manage patients' expectations, helping them to think through what is practical and what is possible. Some patients return for subsequent visits with the LVT, but most do not. According to informants, there are fewer than 200 LVTs nationwide.

(2) Vision rehabilitation therapist (VRT): The VRT's job is to reduce the problems caused by vision loss, primarily by helping patients with everyday activities in the home environment. VRTs help with everything except cane travel, which is the specialty of the OMS. One type of help is to make environmental changes, such as adding touch-sensitive labeling for appliances or introducing handwriting guides to facilitate writing in straight lines. Another is to help people adapt by developing and using hearing and touch. VRTs also teach Braille. VRTs were formerly called vision rehabilitation teachers, and the current path to training as a VRT is through a Masters degree in education. The VRT assesses who patients are, including their lifestyle and their goals, as well as the emotional and psychological effects of vision loss on activities of daily living (ADLs) such as bathing and dressing, instrumental ADLs such as cleaning and cooking, and communication. In many ways the knowledge and skills of a VRT are similar to an OT but without the knowledge of co-morbidities, but with training in teaching Braille. There are fewer than 550 of VRTs certified in the U.S.

(3) Orientation and mobility specialist (OMS): The job of the OMS is to help people with vision deficits to orient to their environment and to get around, e.g., walking in the neighborhood and crossing streets safely, using the long cane, using public transportation, and shopping. For example, the OMS can help a patient to create maps of where things are located in the grocery store. The OMS can teach patients how to interact with people so that they can learn to ask for useful information, for example, about how an intersection is laid out. The OMS can sign off on service-dog applications or on the order to access para-transportation. Like the other LV specialists, the OMS needs to work with patients to understand their priorities and their capabilities. The OMS may work with the other LV providers to coordinate what they may be doing, e.g., teaching to use a telescope to read signs on the street or using a magnifier to read labels in the grocery. Informants agreed that training in these types of tasks by an OMS is the most time-consuming of any of the LV specialists, with some training taking 40 or 60 hours or more. There are approximately 2,000 OMSs in the U.S.

(4) Occupational therapist (OT): An OT trained in LV issues can be an important part of the LV team. Depending on how the team is structured, the OT can perform some of the tasks of the VRT in making adaptations at home, as well as the LVT by helping patients to use devices, as well as training in areas of weakness. The OT can also be part of the functional assessment of patients' abilities and impairments in performing everyday tasks. According to the Bureau of Labor Statistics, there are nearly 100,000 OTs in the U.S., but not all of them are trained to provide LV rehabilitation services.

(5) Social worker: Some of the LV provider organizations participating in the Demonstration use social workers as the first contact for all clients who contact the agency. In these cases, the social worker performs the intake, assessing the needs and problems of the client, explaining services, and deciding which of the organization's program are best suited for them. This leads to the development of the initial care plan and the coordination of services for the new client.

2. Financial

All five of the organizations for the blind and vision impaired that are participating in the Demonstration have a history of financing their LV rehabilitation services through charitable contributions and endowments, which allow them to subsidize some or all of the costs of LV exams, therapies, and devices for many if not most of their clients. Four of the five (NC excepted) also have contracts from their state agency for the blind. For citizens who are blind, these state contracts cover rehabilitation by LV specialists, as well as devices and equipment. Most of the organizations also ask clients to make a voluntary contribution toward service costs. Prior to the Demonstration, only two were billing third parties for services. Highlights of sites' financial models include:

- Prior to the Demonstration, Lighthouse International had already taken steps to move to a medical model of providing and billing for LV rehabilitation services. It had opened a licensed medical care center, established referral relationships with major medical providers, and hired staff with experience delivering and billing for medical services. By 2007, 60% of its $28 million in revenue was from Medicare. CSBPS in Seattle was also already billing third parties for LV rehabilitation services, including Medicare. It was also providing LV rehabilitation services through a contract with a large HMO.

- The other three sites, CVI in Atlanta, MAB in Charlotte, and NHAB in New Hampshire, were not billing third parties; but CVI and MAB were interested in moving in that direction, and the Demonstration offered a pathway. Both CVI and MAB received significant proportions of their revenue from the United Way. CVI and NHAB had significant income from endowment (worth about $6 million each), and MAB used profits from its Braille business (about $4 million a year) to subsidize services.

At the time the Demonstration began, the two independent optometrists interviewed were financing the LV exams in their private practices (and one in his academic practice) through what they described as the standard way optometrists obtain Medicare reimbursement for these services. They were billing Medicare using codes for LV consultations and extended service modifiers, which significantly enhance payment beyond a standard optometric exam. Both optometrists then made referrals to collaborating OTs, who billed for their own services. The clinic in which the ophthalmologist works was following the same model. The OMS in the sample was paid on an hourly basis ($75 to $100 per hour) for his work with school systems, state departments, and the state association for the blind. These organizations also reimbursed the OMS for travel time and mileage.

3. Providers and Beneficiaries

(a) Managers and professionals. The managers and professionals who were interviewed for the study were supportive of the policy of expanding Medicare coverage of LV rehabilitation services, but they expressed different views across the five sites. For

example, Lighthouse International had committed to becoming a Medicare provider, whereas the New Hampshire Organization for the Blind decided to remain a contracted and charitable provider and not to bill third parties. The other large organizations for the blind saw Medicare payment as an opportunity to expand revenue and services for their aged clientele, and to stretch charitable funds to serve additional non-Medicare clients. All of the leaders of the charitable organizations had hoped that the Demonstration would provide incentives for independent LV providers to participate. However, they feared that these providers would have neither the money to invest in start-up costs such as developing Medicare reporting and billing systems, nor the relationships with LV specialists, who tended to work for the large organizations for the blind or educational institutions.

The independent providers reflected the views of the organizationally affiliated professionals. All had heard of the Demonstration from their professional organizations, which urged them to find a way to participate. However, when they saw the terms and conditions, particularly the reimbursement rates for LV specialists, the lack of new payment codes for the optometrist's LV exam, and the payment rate for OTs that was lower than existing Medicare rates, they were not enthusiastic about the leverage the Demonstration would provide to bring more LV providers into Medicare. Both optometrists as well as the OMS looked for ways to participate, but none was successful, as described below.

(b) Beneficiaries. Providers in both the large organizations and in independent practice described similar barriers regarding Medicare beneficiaries' use of LV rehabilitation services in the current system. The major barriers are (1) access due to distance and travel barriers, (2) costs due to uncovered services and low income, and (3) lack of knowledge about LV rehabilitation services due to poor referral practices by eye care providers and denial of need on the part of beneficiaries.

First, the providers in the sample reported that the clients they served often had problems traveling to their offices. Two of the organizations for the blind served entire states, and one of the independent providers was the only LV provider in a large rural area comprising nearly half of his state. To address travel problems, the participating organizations for the blind all had services that went out into peoples' homes. They also worked to organize their center-based services so that patients can see the optometrist, choose and obtain a device, and get training by the LVT to use the device in a single visit. The participating providers pointed out that individuals living in other parts of their states may have no LV providers anywhere near them.

Second, informants pointed out that most of the Medicare beneficiaries they serve have low incomes, and they often also have high, uncovered medical expenses that can accompany a chronic illness. Few would be able to cover the costs of LV specialty services without Medicare reimbursement or charitable coverage. Charitable contributions to cover the costs of prescribed devices were also reported to be essential in the absence of third party coverage.

Third, respondents pointed out that beneficiaries with LV problems often do not hear about LV rehabilitation services from their ophthalmologists and other medical providers. Medical providers were said to be focused on providing their services and to have neither sufficient knowledge of LV rehabilitation services nor the time to explain LV rehabilitation services to patients. This view was supported in interviews at the multi-specialty ophthalmology practice that participated in the Demonstration in NH. Additionally, beneficiaries with eye diseases who were losing their vision were said to often be in denial of their loss, or at least not ready to stop looking for cures and start looking for rehabilitation.

3. The organizations' experiences in the Demonstration

1. Structural

(a) Service delivery in the Demonstration. Each of the five organizations for the blind developed a model for participating in the Demonstration, which allows them to serve Medicare beneficiaries with LV rehabilitation services, bill for the services, and receive reimbursement. These were no small feats for the organizations that had not previously billed Medicare. The biggest change in service delivery was what these organizations called converting to "the medical model." This included creating forms and procedures that met Medicare documentation guidelines, which staff contrasted to their traditional practice as being (1) oriented more toward "training" than "teaching," (2) shorter term in hours of service, and (3) requiring more documentation about achievement of more specific goals. The sites that were new to Medicare billing also had for the first time to ask patients to sign a release to bill Medicare, to obtain patients' Social Security and Medicare numbers, and to obtain Medicare supplemental insurance coverage information. The sites had to train LV professionals to complete the documentation and at some sites also gather the billing information, which staff reported took substantially more time than previous approaches.

Beyond the task of having to develop and implement documentation to bill Medicare for LV rehabilitation services, the five large organizations developed somewhat different models for service delivery.

First, only three of the five sites (CVI, MAB, and NHAB) offer the full range of LV rehabilitation services through the Demonstration. CVI in Atlanta and MAB in Charlotte set up self-contained service delivery models, which include office-based assessments by optometrists, who sign care plans which are developed collaboratively with LV specialists who are on staff. CVI already had an optometrist on staff, while MAB contracts on a per diem basis for an optometrist to perform LV exams two days a week in a satellite clinic newly developed for the Demonstration. At both of these sites the typical patient makes one visit to receive the LV exam and see the LVT to choose and learn to use a device. In the less common cases when in-home or community-based services are indicated, both of these organizations also order and bill for VRT and OMS services.

The NHAB in Concord also has a full range of services available, but they provide these through a partnership with the Eye Center of Concord, a multi-specialty ophthalmology practice. The partnership allows NHAB to avoid becoming a Medicare provider and biller. Under the written agreement, the Eye Center refers patients qualified to receive service under the Demonstration to NHAB, which conducts the LV assessment and develops a care plan. The plan is faxed back to the Eye Center physician for signature; NHAB delivers and documents the recommended LVT, VRT, and OMS services; and the Eye Center bills under its Medicare number. The Eye Center keeps 20% of revenues for its work and passes on 80% to NHAB.

While this arrangement may have been well conceived, site visit interviews at both the Eye Center and NHAB showed that it has been inconsistently implemented. The reasons for this include failure to have either a medical "champion" or an administrative leader at the Eye Center, cumbersome referral forms and procedures, and confusion about whether physicians or technical assistants should be responsible for describing the Demonstration and facilitating referrals. At NHAB, staff was reported to have some hesitation to try to advocate for the Demonstration with Medicare beneficiaries who were referred by the Eye Center outside of the Demonstration, since they would be billed for coinsurance on services. At the time of the site visit, only seven beneficiaries had received services under the Demonstration over about 18 months of operations.

Two of the sites - LI in NYC and CSBPS in Seattle - have the full range of LV rehabilitation services available in their traditional LV programs offered through state contracts, but neither is delivering home-based and community-based services through the Demonstration. The CSBPS site is not billing for the VRT and OMS because site administrators reported that patients needing these services rarely come to the LV clinic. Since the optometrist will not sign a care plan for a patient she has not examined, these services cannot be included in care plans. The LI site started out delivering and billing for in-home LV rehabilitation services, but a year into the Demonstration, they discovered that their Article 28 license prohibited them from providing services outside the central office. Since then they reported that they occasionally order and deliver OMS and VRT services in the center, but when these services are required in a patient's home, another source must pay. Further, the LI site is using OTs to serve Demonstration patients to perform the tasks traditionally performed by LVTs and VRTs, in part because OTs are paid at substantially higher rates by Medicare and in part because LI can shift part of the optometrist's assessment to the OT and bill for it. The details of this approach are found in Appendix C2 on page 60.

In contrast to the large organizations for the blind, none of the independent LV providers who were interviewed was able to develop a model to deliver LV rehabilitation services through the Demonstration - either in partnership with the medical institutions with which they worked, or in their private practices.

- The optometrist and ophthalmologist who had practices in medical centers, as well as the rural optometrist who referred to an OT at the local hospital, did not

- After being turned down by the medical center, the optometrist with a practice in a medical center decided to join the Demonstration through his private practice and bill for the OT. He obtained all the forms and instructions and started billing for the OT with the Demonstration payment codes. As described below in reimbursement and billing discussion on page 36, he was not able to obtain reimbursement.

- The OMS who was interviewed considered approaching ophthalmologists with whom he worked, but he decided that the materials describing the Demonstration that he received from his professional organization were too long to present to the doctors with whom he worked. He did make contact with a LV specialist at the association for the blind in his state that was participating in the Demonstration, but they said OMS's charge exceeded the CMS reimbursement rate, and they also wanted to use their own staff.

- The rural optometrist continued to refer LV patients to the hospital OT, and they both continued to bill regular Medicare. Recently, however, the Medicare Carrier changed in the state, and the new Carrier would not reimburse for extended optometric exam codes. This optometrist stopped providing LV rehabilitation services.

(b) Facilitators and barriers and how addressed. Participating organizations cited benefits from becoming Medicare providers. One is that there is less time to wait for services to start than in the state program, and another is that there is an opportunity to improve coordination with medical providers. For example, one site reported that under the Demonstration, the optometrist working for the organization is able to provide reports to ophthalmologists and receive better information back from them. A leader at the NH site reported that because of the new alliance formed with a multi-specialty ophthalmology practice under the Demonstration, he was able to enlist a representative of the practice to be on the board of the organization for the blind.

However, respondents also cited barriers, for example, lack of understanding of how to implement a Medicare demonstration, difficulties increasing enrollment, Demonstration restrictions on eligibility and hours of service, and the obstacles two organizations (LI in NY and CSBPS in WA) encountered to delivering services outside their offices.

First, leaders and staff at more than one site reported that one of the major frustrations of participating in the Demonstration was that there were not many outside supports to facilitate the adoption and implementation of the Demonstration. On the one hand, staff reported that the affiliation with other providers in the VisionAlliance afforded some help, but for the most part they felt they were on their own to solve problems. It would have helped to have expert guidance on how to get started, on documentation, and on how to submit bills to Medicare Carriers.

Second, in terms of enrollment, only the site in Seattle was satisfied that it had adequate referral relationships with medical providers in the community it serves. The other sites all made efforts to increase referrals, but they are generally disappointed in the results. The Atlanta site had a grant to help with outreach about the Demonstration; the NC sends its optometrist out to make visits to ophthalmology practices; the NYC site has made a strategic alliance with a medical center; and the NH site has written referral arrangements with a medical partner. The results were reported to yield little in terms of increased referrals, sometimes because it was difficult to get the attention of physicians, but more often because it seemed to be even more difficult to get them to add a discussion and referral into their typical LV patient visit.

Third, several sites reported restrictions on hours of service as a barrier, especially to patients who need OMS services, such as training to use a long cane. Another site cited the Demonstration's prohibition on services to patients whose eyesight is better than 20/60. Professionals at this site reported that seeing patients early allows the optometrist to establish a relationship with a patient and to work with them as their vision deteriorates. The way around these barriers that sites used was to see these types of patients outside of the Demonstration framework through charitable or contributory payment systems.

Fourth, the barriers to in-home and community-based services at the NYC and Seattle sites have been described above. Both sites suggested possible ways to address barriers, but neither seemed feasible. In NY, LI considered becoming or partnering with a certified home health agency, but this was considered too expensive and difficult for the return. In Seattle, CSBPS suggested that CMS allow LV specialists to bill as independent providers, including developing a patient's care plan, working directly with the patient's physician for his/her sign off, and then billing Medicare. However, this model was considered to be beyond what was allowed under the Demonstration or Medicare.

For the independent doctors interviewed, the Demonstration did not provide anything that facilitated participation, and it did not overcome any of the barriers. There are no new payment rates or billing categories to cover the optometrist's LV exam, and the rates for the OTs with whom they are already collaborating are lower than regular Medicare rates. The OMS was initially excited about the Demonstration, since it appeared to be a way to get his services covered under Medicare. However, he reported an additional barrier beyond poor marketing material and low rates. He saw that optometrists and ophthalmologists would be deciding if there was a need for OMS services, and he decided this would not work, since in his experience they are not trained to assess functional need. In his practice, the doctors always expected him to conduct an assessment to ascertain mobility needs and how to meet those needs.

2. Financial

(a) Reimbursement. The managers and providers interviewed were unanimous in their views that a major flaw in the Demonstration design is the low rates paid for the newly

covered LV specialists. Data obtained from the LI site in NYC illustrate the payment differentials between OTs and the other rehabilitation providers for a 15-minute service block under the Demonstration reimbursement rates:

- OT (G9041): $25.98
- OMS (G9042: $12.01
- LVT (G9043): $12.01
- VRT (G9044): $10.54

Medicare pays 80% of these rates to the providers, who are expected to collect the other 20% from supplemental insurers, Medicaid, or beneficiaries. However, none of the participating organizations reported that they had received reimbursement from supplemental insurers or Medicaid, or that they had seriously tried to recover coinsurance costs from patients.

The informants contended that the OMS, VRT, and LVT, who may have Masters degrees in education, are often as highly trained as OTs and nearly as expensive to employ as OTs. Yet the LI payment rates imply that the salaries of LVTs and OMSs are on average 45% of the salary of OTs, and the salaries of VRTs are on average 36% of the salaries of OTs. Most of the sites provided some data in the case studies to back up their arguments about relative costs, and an analysis of these data and other source data tend to bear this out (see Appendix D). The respondents cited the fact that they allocate costs to other payers at much higher rates than these for the services of LV specialists.

The informants reported that at best, the Medicare reimbursement helped to make charitable money go farther, and most site leaders appreciated this. However, informants also reported that the low rates are a disincentive to work harder to expand their participation. An illustration of the disincentive to bill under the Demonstration was provided by CVI in Atlanta. If CVI's charitable grant funds are not fully expended in the year they are awarded, the funder may decrease the subsequent year's award. Given this, there have been times during the Demonstration when Medicare-eligible clients have been billed to other sources to ensure that these other funds are spent. Another illustration was at the NH site. Although neither NHAB nor the Eye Center participated in the Demonstration for financial reasons, the low rates were eventually a barrier to implementation. This was especially true for the Eye Center, which received 20% of an already low rate. According to senior staff, if the rates were higher, the Eye Center would make the program a higher priority.

Reimbursement rates in the Demonstration were also a problem for the OMS who was interviewed. The low hourly rate is far below his usual charges, and there is no coverage for mileage, travel time, or time to write the required reports. The low payment rates were also a barrier to setting up relationships with doctors, since it would be extra work for them and inadequate revenue to pay for his OMS services.

The respondents also pointed out that another disincentive to participate fully in the Demonstration is that the reimbursement rate set for OTs in the Demonstration is lower

than the rates paid for OT services in regular Medicare. For example, data provided by LI in NYC showed their OTs can bill under their own provider numbers for assessments under code 97003 at a Medicare rate of $86. They can also bill for a variety of other activities at between $27 and $34 per 15 minutes. All these are higher than the $26 rate for OT services in the Demonstration. Following the logic of these incentives, the LI site and the independent optometrists preferred to move to or stay with an OT-based model of care and reimbursement.

Another reimbursement shortfall in the Demonstration affecting some sites is that no new payment categories were included for the optometrist's LV exam. Managers and billing staff at some of the sites reported that their Carriers will not consistently accept extended billing codes, since longer exams are supposed to be extraordinary. Since the LV exam is routinely long, and long exams are what these providers do, the Carriers reject some of their bills for the exam. As pointed out previously, because there was no provision in the legislation to change payment approaches for optometrists, CMS did not have the authority to change payment categories or policies for these providers.

Finally, informants at both the associations for the blind and the independent practitioners pointed to the lack of reimbursement for devices as a barrier. Most of the organizations for the blind address this barrier by covering $100 or so of devices from charitable funds, and the independent optometrist who tried to participate collects old devices so he can recycle them free to patients who cannot afford them. This will be discussed in more detail in the beneficiary section on page 38.

(b) Billing. Success and failure in billing appeared to depend heavily on whether the Medicare Carrier understood and honored the Demonstration payment codes. There were no important problems for three participating organizations: CVI in Atlanta, CSBPS in WA, and the Eye Center in NH. In contrast, MAB in NC and LI in NY both had extensive problems, which delayed payment for at least many months to as much as a year. The problems included misunderstandings about the currency of MAB's Medicare provider number, ongoing refusal by both sites' Carriers to recognize or understand the Demonstration payment codes, apparent software problems in both sites, recommendations for paper submission from LI that did not work, and LI's having to deal with different Carriers in different parts of its service area (one accepted the Demonstration payment codes and one did not). Some of MAB's problems appeared to be due to being new at Medicare billing, but this was not the case with LI, which made a point of hiring billing managers and staff with hospital billing experience. Whether bills were rejected or not, it cost these new Medicare providers time and money to develop, buy, and operate Medicare billing systems.

The independent optometrist who tried to bill for Demonstration services also quit due to billing problems. The first time he submitted bills for his and his consulting OT's services through his private practice, the Carrier rejected them. He resubmitted the bills with documentation from CMS about the Demonstration and the Demonstration payment codes, and the Carrier rejected them again. In frustration, he paid the OT out of pocket

and went back to having the OT bill outside the Demonstration, since rates are better and the bills get paid.

Two sites reported that providing LV rehabilitation services through Medicare had adverse effects on their relationships with patients. At the NC site a few patients reportedly refused services when they heard Medicare would be billed. At the same site, some patients suggested that MAB was defrauding Medicare when they received repeated notices from the Carrier that bills were not being paid. At the NH site, staff experienced ethical conflicts with placing clients in a program where they would be billed a copay, when not referring to the Demonstration meant the patients would receive the services for free through charitable support. The solution to this conflict was to offer LV devices at no charge for Demonstration patients as compensation for the new services charge. This was in contrast to their usual approach, which is to offer services at no charge and to charge for LV devices. All sites appeared to put little effort into collecting the 20% coinsurance, in part since the sums were very small but more importantly because their customer relations models did not involve billing customers for services.

In summary, the combination of disincentives to fully participate due to low reimbursement rates and billing/payment problems appear to have held down the amount of Medicare money paid to the participating sites. According to CMS analysis of payments made to the sites, some of the sites have billed and been paid relatively small amounts. The CMS figures show that the five case study organizations had received the following reimbursement (representing 80% of approved charges) through June 2008:

- NHAB (NH): $400
- MAB (NC): $18,325
- CSBPS (WA): $10,219
- LI (NY): $11,004
- CVI (GA): $453

(c) Facilitators and barriers and how addressed. The Demonstration facilitated interest in delivering expanded LV rehabilitation services under Medicare among the organizations for the blind and even among independent LV providers, but it did not provide adequate financial incentives to participate. Most importantly, the payment rates for newly covered VRTs, LVTs, and OMSs were perceived to be below the costs of providing these services. This caused the large organizations to participate less fully than they might have and also to make service delivery decisions that did not further the Demonstration's goals. Some shifted payment for LV rehabilitation services for Medicare beneficiaries to other payment sources, including regular Medicare and charitable contributions.

Getting bills paid was also a major challenge for two of the large organizations. They faced this challenge with persistence and by spending time and money on staff and new billing systems. The independent provider who tried to bill for his consulting OT under the Demonstration quit after being twice rejected by the Carrier.

Finally, the lack of new coverage of devices provided no new facilitator in this area of need. The site staff pointed to the low income of most of their Medicare patients and the low cost of the standard types of devices as evidence that a modest first-dollar benefit would be reasonable.

Although the participating providers' disappointment with reimbursement and billing is primarily a story of barriers, it is important to also convey their enthusiasm for the concept of the Demonstration. Becoming a Medicare provider and billing for services was a challenge for the sites that were new to billing Medicare, but they reported that they were glad to develop the capabilities and glad to have LV specialists covered, since they saw this as a new future business opportunity and a way to better serve patients.

3. Providers and Beneficiaries

(a) Managers and professionals. The managers and professionals interviewed for the case studies expressed mixed views about the Demonstration from the point of view of their organizations and professions. On the positive side, having a national demonstration is recognition of the importance of LV rehabilitation services and the need for these services among Medicare beneficiaries. It has been a tool for them to help people to understand that LV rehabilitation services are available at lower acuity (20/70) than blindness (20/200). Both CMS and their professional groups did a good job at publicizing the Demonstration to their practitioners, and interest and support appears to have been widespread. Among the participating organizations, it has been important to have an opportunity to move towards participation in a major source of third-party funding for services for their clientele. They have shown that they could convert their organizations and professional practices to work within the "medical model," and they have valued the opportunity to demonstrate the need for and value of LV rehabilitation services and models to deliver them.

On the less positive side are fears that the Demonstration has not provided an opportunity for a true test of their organizations and professions. Most importantly, there is not a realistic opportunity for independent eye care professionals to participate, since only organizations with charitable resources can afford the start-up costs and operating subsidies. Also, the large organizations are the only LV providers that employ the LV specialists who represent the major expansion in coverage. There has been neither the time nor the financial incentives to create new working and business relationships between independent eye care professionals and LV specialists to deliver services through the Demonstration. Similarly, there have been plans and efforts at most of the sites to use the Demonstration to create closer ties between participating LV providers and ophthalmologists in their communities. For the most part, the efforts appear to have opened lines of communication and even new formal relationships, but it has been much more difficult to affect practice in the form of increased referrals.

(b) Beneficiaries. The respondents in the large organizations, as well as the independent providers, described a similar range of impacts of the Demonstration on beneficiaries, including issues related to access, costs, travel, benefit structure, and changes in

relationships. By covering LV rehabilitation services through Medicare, and by opening up services for the non-blind, the Demonstration has increased access to LV rehabilitation services for Medicare beneficiaries in the organizations' service areas. However, the formal increase in access has not necessarily translated into actual use of LV rehabilitation services. Respondents reported difficulties getting eye care providers to refer their patients; and when they have referred, travel was cited as a barrier for some of the beneficiaries who are referred. Independent practitioners described the missed opportunity of attracting additional independent doctors to LV rehabilitation services, which would have increased access.

Having LV rehabilitation services covered through Medicare was also cited as an aide to access for beneficiaries, but the lack of coverage for equipment, devices, and supplies was cited as a major problem for beneficiaries, who generally have low incomes, as well as other expensive health care needs. The large organizations for the blind all have charitable funds to ensure that all their patients who need a device but cannot afford one are able to go home with a basic device ($100 or less seemed to be the limit) after the visit to their centers. One of the independent LV providers collects used devices to be able to do the same. The providers pointed out that obtaining devices is essential to addressing most LV patients' needs, but charity is not a reliable solution for an expanded benefit.

The other shortfall in the Demonstration benefit - the limitation to 12 hours of LV rehabilitation services a year - was reported as a barrier for only a small minority of beneficiaries. Most patients are well served in a single visit that results in a device and the training to use it. Additionally, among beneficiaries whom professionals believe might benefit from services in the home or the community, many decline to receive them. However, the major organizations reported that they serve some patients whose needs cannot be met within the 12-hour limit. Charitable funds are available in most organizations to meet these additional needs, but again, this is not a solution for patients served outside such organizations.

III. Summary

A. Structural

The only providers that were able to successfully participate in the Demonstration were large, non-profit organizations for the blind. Although two out of five of these organizations were not Medicare providers before the Demonstration, or had only recently become Medicare providers, they all had several capabilities and characteristics that facilitated their participation, including:

- Existing infrastructure that was consistent with Demonstration requirements, most importantly functioning LV clinics that employed the LV specialists newly covered by Medicare.

- Charitable and other sources of funds that could (1) support planning and implementation of the Demonstration and (2) subsidize the costs of LV rehabilitation services that were underpaid (LV specialists) or unpaid (devices) in the Demonstration.

- Corporate missions to become Medicare providers for LV rehabilitation services, either on their own or in collaboration with a medical provider in the case of NH.

Drawing on these resources, all of the organizations were able to develop service systems that were capable of delivering the full range of LV rehabilitation services, as envisioned in the Demonstration design. The NYC and WA sites made few if any changes in their service delivery systems to participate, but the other three had to make substantial changes, particularly in the areas of creating and training staff to use clinical record-keeping systems and developing billing systems that are consistent both with Medicare requirements. Three ended up being able to deliver the full range of LV rehabilitation services through the Demonstration. The other two have not been able to deliver and bill for in-home and community-based LV rehabilitation services - one due to licensure restrictions and the other due to inability to obtain a doctor's signature on a care plan for beneficiaries who could not travel to the center. Most of the organizations tried to use the Demonstration to increase referrals from medical providers of beneficiaries needing LV rehabilitation services, but all were disappointed in results.

None of the four independent providers who were interviewed were able to participate in the Demonstration, although all knew of the project and at least considered participating. The primary barrier they reported was low payment rates (see next section), but there were other obstacles. First, neither the two optometrists nor the one ophthalmologist interviewed worked with the newly covered LV specialists in their various practice settings (private practices, medical center LV clinics, and a rural hospital). Rather, they worked with occupational therapists, which they reported is the most common approach to providing LV rehabilitation therapy through Medicare in most of the country. The institutions with which they worked were not interested due to the low reimbursement

rates and anticipated low volume. Second, the orientation and mobility specialist reported that the informational materials received from his professional organization were too long and complicated to present to potential medical partners.

B. Financial

The informants in both large associations for the blind and among independent providers reported that the major shortcomings of the Demonstration design were financial.

- The charitable organizations reported that the reimbursement rates for the newly covered LV specialists are so low that they lose money every time they deliver a LV rehabilitation service. Because independent optometrists and ophthalmologists perceive the rates to fall far short of covering costs, they said there are no incentives for them to develop business relationships with these providers.

- The Demonstration reimburses less for OT services than OTs can bill in regular Medicare. This payment structure gives independent doctors an incentive to stay with their existing OT referral models, and it caused one of the large organizations to move to an OT-based model for rehabilitation services.

- The Demonstration does not pay for LV equipment and devices, which respondents reported are an essential component of LV rehabilitation services.

- Because there was no legislative mandate to change how optometrists are paid, the Demonstration does not have payment codes for the optometrist's LV exam. One of the independent optometrists and one of the organizations for the blind reported that their bills for extended exams were rejected by the Medicare Carrier.

- Two of the five organizations for the blind had major problems having their bills for Demonstration services recognized and paid by their Medicare Carriers. The one independent optometrist who tried to bill using Demonstration codes stopped participating in the Demonstration after his bills were rejected twice by the Carrier.

The large organizations for the blind have continued to participate in the Demonstration despite these financial obstacles. However, the respondents reported that the financial disincentives have hampered their participation in some cases. This includes:

- Not pursuing a solution to barriers that prevented coverage of in-home and community-based services at two sites.

- Not consistently or effectively addressing barriers to referrals and utilization at another site.

- Not billing all eligible services to Medicare at another site.

C. Providers and Beneficiaries

The large organizations for the blind that have participated in the Demonstration have traditions as charitable organizations that use an educational model of service to clients who are blind or have low vision. As members of the VisionAlliance, they earlier advocated for a demonstration of adding LV rehabilitation services to Medicare. The goal was to show how to better serve their growing numbers of older clients through a more reliable reimbursement source. Some of the participating organizations have used the Demonstration to try to transition to being medical providers, including changes in professional practice and creating third-party billing systems. For the most part, they reported that these transitions have been workable, acceptable to professionals, and consistent with their goals as LV providers. Where the Demonstration fell short, e.g., in payment rates and lack of coverage of devices, their organizations have filled in the holes. In summary, they reported that their services can be covered by Medicare, and they have accommodated their services to Medicare.

The independent providers reported from a different perspective. They were already providing LV rehabilitation services within regular Medicare. The Demonstration did not provide them with any new professional practice opportunities, and it failed to confirm their model of LV practice. Their practice settings were not able or willing to fill in the gaps left by low payment rates and lack of coverage of devices.

Although beneficiaries were not interviewed for this part of the evaluation, the provider respondents discussed beneficiaries' needs, resources, and behavior. Large proportions of the patients of both the large organizations and the independent providers are Medicare beneficiaries with LV problems. They were reported to face significant barriers to accessing LV rehabilitation services due to difficulty traveling, low income, lack of information about LV rehabilitation services, and inconsistent referrals to LV providers from their medical doctors. The Demonstration addressed some of these barriers, most importantly making them eligible for LV rehabilitation services through their Medicare coverage. The participating organizations tried to expand information and referrals. They used their charitable resources to cover non-reimbursable costs (e.g., coinsurance and basic devices). The large majority of eligible beneficiaries were said to be well served within the Demonstration's 12-hour per year limit on services, which will cover the single visit that most patients make, as well as one or two follow up visits for in-home services.

There was some evidence that beneficiaries who are served by the independent LV providers may not do as well. First, an independent LV provider may not be easily accessible to beneficiaries in all parts of the country. The only LV optometrist serving a large portion of a rural state discontinued providing LV rehabilitation services during the period of the Demonstration when the new Carrier would no longer pay for extended exams. The devices that are essential to LV rehabilitation must be purchased out of pocket. It seem likely that beneficiaries with LV problems in many parts of the country

have their access to LV rehabilitation services limited by lack of information, lack of providers (including OTs), and lack of money to pay for services and devices.

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Appendix A: Interview guides for organizational respondents

Senior Administrator Guide

Individual

1. Tell us about:
    - Your professional training
    - How long you have worked here
    - Your position and responsibilities

About your Agency in general

1. What proportion of patients are Medicare
2. Typical types of moderate to severe impairments among your Medicare patients
3. How Medicare patients typically come to you (referred from where)
4. What low vision services you typically provide and how:
    - Needs assessment protocols/tools
    - Care planning
    - Services delivered (by which staff and where)
    - Care monitoring

About the Demonstration

1. How your Agency became involved in the Demo (who, when and in what form)
2. In planning, how you designed the demo to be implemented at your Agency (staff involved, other agencies involved, new protocols, etc.)
3. In practice, how the demo has actually been implemented
4. How many of your clients have received services under the demo
5. Barriers to participating in the LVRD program
6. Factors that facilitate or would facilitate the adoption of the LVRD program

About coverage of service, billing and reimbursement

1. How demo affected provider reimbursement (which providers affected and how)
2. Billing for services under the demo: How and experience to date (problems, etc)
3. Barriers and opportunities under the Demo reimbursement system

Final questions

1. How would you assess the level of need for LV rehabilitation services among Medicare beneficiaries
2. How would you assess the level of interest in providing LV rehabilitation services to Medicare beneficiaries
3. Recommendations with respect to providing LV rehabilitation services to Medicare beneficiaries
4. Any other comments?

Optometrist - Ophthalmologist Guide

Introduction/Explanation/Consent

Individual

1. Tell us about:
    - Your professional training
    - How long you have worked here
    - Your position and responsibilities

About your Agency in general

1. What proportion of patients are Medicare
2. Typical types of moderate to severe impairments among your Medicare patients
3. How Medicare patients typically come to you (referred from where)
4. What low vision services you typically provide and how:
    - Needs assessment protocols/tools
    - Care planning
    - Services delivered (by which staff and where)
    - Care monitoring
5. Do you refer patients to LV rehabilitation services outside the practice? Where?

About the Demonstration

1. How you became involved (who, when and in what form)
2. Your plan for implementation (staff involved, other agencies involved, new protocols, etc.)
3. Actual implementation. Effects on your practice (e.g., assessments, planning, where services are provided, referrals you make, outcomes)?
4. Number of clients served
5. Barriers to participating and ways around them.
6. Factors that facilitate or would facilitate the adoption of the LVRD program
7. Effects on your business

About coverage of service, billing and reimbursement

1. Billing for services under the demo: Did you bill and experience to date (problems, etc)
2. How demo affected provider reimbursement (which providers affected and how)
3. Barriers and opportunities under the Demo reimbursement system

Final questions

1. How would you assess the level of need for LV rehabilitation services among Medicare beneficiaries

2. How would you assess the level of interest in providing LV rehabilitation services to Medicare beneficiaries
3. Recommendations with respect to providing LV rehabilitation services to Medicare beneficiaries
4. Any other comments?

Finance Staff Guide

Individual

1. Tell us about:
    - Your professional training
    - How long you have worked here
    - Your position and responsibilities

About your Agency in general

1. What proportion of patients are Medicare
2. The rest of your patient population in terms of payers, demographics, etc.
3. Prior to the demo, how you billed for LV rehabilitation services
4. Generally how your agency is financed – main sources of revenue, revenue trends, relative importance of Medicare revenue

About the Demonstration

1. How your Agency became involved in the Demo (who, when and in what form)
2. In planning the demo, what (if any) new systems did you design to bill for the new benefit
3. In planning the demo, what were your expectations about the cost of providing the new benefit relative to the reimbursements under the demo
4. In practice, what has been your experience with billing under the demo
5. In practice, how has the cost of providing the demo benefit compared to the reimbursements you receive under the demo
6. How many of your clients have received services under the demo
7. Barriers to participating in the LVRD program
8. Factors that facilitate or would facilitate the adoption of the LVRD program

Final questions

1. How would you assess the level of need for LV rehabilitation services among Medicare beneficiaries
2. How would you assess the level of interest in providing LV rehabilitation services to Medicare beneficiaries
3. Recommendations with respect to providing LV rehabilitation services to Medicare beneficiaries
4. Any other comments?

Provider Interview Guide – Therapists

Individual

1. Tell us about:
    - Your professional training
    - How long you have worked here
    - Your position and responsibilities

About your Agency in general

1. What proportion of patients are Medicare
2. Typical types of moderate to severe impairments among your Medicare patients
3. How Medicare patients typically come to you (referred from where)
4. What low vision services you typically provide and how:
    - Needs assessment protocols/tools
    - Care planning
    - Services delivered (by which staff and where)
    - Care monitoring

About the Demonstration

1. How many clients (estimate) have received services under the demo
2. A general description of how your Agency is implementing the demo (staff involved, other agencies involved, new protocols, etc.)
3. A more detailed description of if and how the Demo changed specific care delivery/site operations at your Agency:
4. How patients come to your practice
5. How patients are assessed
6. Care planning and treatment goals
7. What and where services are provided
8. Care monitoring
9. Barriers to participating in the LVRD program
10. Factors that facilitate or would facilitate the adoption of the LVRD program

About coverage of service, billing and reimbursement

1. How demo affected provider reimbursement (which providers affected and how)
2. Billing for services under the demo: How and experience to date (problems, etc)
3. Barriers and opportunities under the Demo reimbursement system

Final questions

1. How would you assess the level of need for LV rehabilitation services among Medicare beneficiaries
2. How you would assess the level of interest in providing LV rehabilitation services to the Medicare beneficiaries

3. Recommendations with respect to providing LV rehabilitation services to Medicare beneficiaries
4. Any other comments?

Appendix B: Interview guides for independent practitioners

a. Please describe your professional status.

b. Please describe your provision of LV rehabilitation services outside the Demonstration

Doctors' practice
LV specialists' practice

c. Please describe your involvement with Medicare if it is a Medicare patient.

Funding/reimbursement
Billing

d. Please describe your interest in, understanding of, and hopes for participating in the LV Demonstration

Understanding
Models for LV rehabilitation services
Hopes and support

e. Please describe your experiences with the Demonstration

Service delivery in the Demonstration
Reimbursement
Billing

f. Please describe your overall experience with the following.

Facilitators
Barriers

g. What would be an ideal system for LV beneficiaries and how does this compare to Demonstration performance?

Appendix C: Case studies of LV providers

This section provides case studies of five provider organizations that have participated in the Demonstration, as well as four independent providers who knew about the Demonstration and considered participating. Each case study is organized to answer the evaluation questions about the structural, financial, and provider/beneficiary issues in LV practice outside of and within the Demonstration. Each case study concludes with an assessment of how LV rehabilitation services at this Demonstration site compare to professionals' ideals for LV rehabilitation services. The case studies are presented in the following order:

a. Center for the Visually Impaired, Atlanta, GA
b. Metrolina Association for the Blind, Charlotte, NC
c. New Hampshire Association for the Blind, Concord, NH
d. Lighthouse International, New York City, NY
e. Community Services for the Blind and Partially Sighted, Seattle, WA
f. Independent provider composite case study

Appendix C1

Center for the Visually Impaired (CVI) Atlanta, GA

a. Experience before and outside of the Demonstration

1. Structural

(a) The sponsoring organization/entity - CVI was founded in 1962 as a vocational rehabilitation service agency. The agency now serves clients who are legally blind as well clients with low vision. CVI operates out of a single location in downtown Atlanta but serves residents throughout the state. CVI is a nonprofit agency that, prior to the Demonstration, depended exclusively on various state grants and contracts, as well as grants from the United Way for its operating revenue. About 80% of CVI clients are older persons.

CVI operates several programs, including: (1) a low vision clinic, (2) adult rehabilitation and community adult services (primarily home-based services), (3) youth services, (4) early childhood and pre-school services, and (5) various support groups. CVI also operates a retail LV equipment and supplies store, located on the ground floor of their building. CVI does not provide transportation. Most of the clients that are served by the community adult services program are clients who cannot travel to CVI. CVI's low vision clinic operates two days a week, and serves about 6 to 8 patients each of these days. The LV clinic is managed by a clinic director and staffed by two optometrists (paid consultants who work one day a week in the clinic), a social worker for intake and initial assessment, and two LVTs.

(b) Doctors' practice. The optometrist's 45-minute exam incorporates the information gathered at intake, the acuity exam, and an assessment of a patient's non-optometric needs. When the exam is done, the optometrist writes a plan of care, which is then shared with the rest of the LV team. It is up to the rest of the LV team to work out the details of the care plan with the patient.

(c) *LV specialists' practice.* Following the optometric exam, the patient sees a LVT for 30 to 90 minutes. The LVT reviews the care plan with the patient, soliciting the patient's perspective about what is appropriate and feasible. The LVT will also coordinate with the LV equipment and supplies store to be sure the patient acquires the right device(s). The LV clinic visit concludes with another visit with the social worker. If the optometrist recommends additional services (and the patient accepts), it is the social worker's responsibility to arrange for the services, including determining whether the services should be provided in the home or elsewhere. About 70% of patients seen in the LV clinic do not receive additional services even when they are offered, and the other 30% also receive some services at home.

2. Financial

CVI finances its operations with various grants and contracts from the State, a grant from the United Way Foundation, revenue from the LV equipment and supplies store, endowments and reserve funds valued at $6 to $7 million, as well as a special fund to subsidize up to $100 per patient for LV devices. CVI does not charge or bill third-party payers for individual services outside the Demonstration. Rather, CVI bundled the LV exam (which includes the optometric exam and a visit with the therapist and social worker) for a cost of $975. For clients who do not meet the eligibility requirements of any of CVI's state-funded programs, CVI asks patients to pay an out-of-pocket fee charged on a sliding fee basis, unless the client is poor, in which case CVI provides services at no charge. At the time of the Demonstration, CVI was in the process of applying for a Medicare provider number so that they could bill Medicare for LV therapies under the "incident to clause." They were also unbundling the costs associated with the visit so they could bill for the separate services.

3. Providers and Beneficiaries

(a) Managers and professionals. As noted above, the CVI leadership and professionals saw the Demonstration as an opportunity to better serve Medicare beneficiaries with LV needs, and to get paid for those services through Medicare reimbursement. In the process, CVI would be able to use freed-up grant and contract funds to serve additional clients who did not have ways to pay for LV rehabilitation services.

(b) Beneficiaries - Prior to the Demonstration, the LV exam was generally all that patients received from CVI. Staff saw the Demonstration as a chance to increase in-home and community-based therapies.

b. CVI's Experience in the Demonstration

1. Structural

(a) Service delivery in the Demonstration. CVI received a $150,000 grant from the Healthcare Georgia Foundation to plan and develop systems to participate in the Demonstration. This included securing a Medicare provider number, establishing forms to document service provision, training the accounting office about how to bill Medicare, reaching out to referral sources to refer LV patients**,** modifying the care plan to include check-offs whether LVT, VRT, or OMS services are recommended, and adding a form that indicates the goals/interventions, whether they were complete, whether more was recommended, the time in and the time out, and the client's signature.

(b) Facilitators and barriers and how addressed. Enrollment in the Demonstration has been low. In 2006, 13 patients received services representing 15 claims; in 2007, 16 patients used services resulting in 25 claims; in 2008, 12 patients represented 15 claims. There have been no significant barriers to CVI's service delivery model.

2. Financial

(a) Reimbursement.

Given low enrollment, the Demonstration has had little effect on CVI's overall financial performance. CVI estimates that they lose money every time they provide services under the Demonstration. CVI's normal unbundled cost for the optometrist is $350, while Medicare reimburses $125 under E&M Code 99243. CVI's other programs cover the LVT at $50 while Medicare pays about $9 for 15 minutes. Given the relatively low rates under the Demonstration, CVI is motivated to expense their services to their other funding sources first.

(b) Billing. Initially the Carrier did not recognize the new Demonstration payment codes and claims were sent back. However, this problem was eventually resolved and no billing problems were reported by the time of the site visit.

(c) Facilitators and barriers and how addressed. First, the most frustrating aspect of billing under the Demonstration was managing the billing and collections for the co-payments. The amounts are very small ($7 in some cases) and the process is cumbersome. CVI estimates that about 70% of their clients are dually eligible, but Georgia Medicaid has denied all coverage of co-payments associated with the Demonstration. Given the low enrollment and the burden of managing the co-payments, CVI is now using an outside agency to manage their Medicare billing and collections, including billing for the optometry exam, the LV therapist under the Demonstration, and associated co-payments. The positive side is that the Demonstration helped CVI get familiar with and set up systems for working with third-party payers. CVI is now trying to develop contracts with managed care organizations.

Second, finance and billing issues reduced the utilization of services under the Demonstration. If CVI's grants are not fully expended in the year they are awarded, the funder may decrease the subsequent award. Given this, CVI has reason to first bill expenses to the time-sensitive funding sources before billing Medicare. There have been times during the Demonstration when Medicare-eligible clients have been billed to other sources to ensure that these other funds are spent. These other funding sources are the core resources for CVI, while the Demonstration is temporary and pays less well.

3. Providers and Beneficiaries

(a) Managers and professionals. Managers and professionals at CVI reported positive experiences with delivering services under the Demonstration. They believe that moving toward becoming a medical provider is consistent with their goals of improving and expanding services.

(b) Beneficiaries. The Demonstration had several effects on beneficiaries. First, beneficiaries are asked to pay copays for services, whereas previously they were asked only to pay a contribution or were offered services for free. This is new but staff did not

report any problems related to this. Second, the Demonstration was a catalyst for CVI to do more marketing and outreach, which in turn did lead to more referrals. However, on average only about 50% of referrals have been converted to an actual service appointment at CVI. As a result CVI has had little if any increased demand under the Demonstration. Reasons that referrals are not converted to visits include distance from CVI and related transportation needs, the patient being in denial about vision loss and therefore not ready for LV rehabilitation services, and the initially small market area. Until October 2007, only 13% of CVI's clients were eligible for the Demonstration due to residence location.

c. Summary

1. Characteristics of ideal LV service model for Medicare beneficiaries

According to CVI respondents, an ideal LV service model for Medicare beneficiaries would have several characteristics that are different form the Demonstration, including:

- Increasing the 12 hour limit: This is recommended mainly for the OMSs who typically are needed for a minimum of 30 hours, and more often for 60 to 90 hours.

- Paying for devices: This was not a barrier for CVI because they have a special fund available to subsidize up to $100 worth of devices for clients. If a patient cannot afford the devices, e.g., magnifiers, long canes, much of the utility of the LV specialists is undermined.

- Adequate payment rates: The low rates offered by the Demonstration make participation unattractive for an organization with other sources of funds to cover costs, and impossible without such funds.

2. Performance vs. ideal at this site

Due to the availability of foundation and endowment funding, CVI was able to serve beneficiaries with a full range of LV rehabilitation services and devices. The Demonstration, as well as the foundation support that CVI received for development, helped make the transition to the medical model, which may allow CVI to work with other third-party payers.

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Appendix C2

Lighthouse International, New York City, NY

a. Experience before and outside of the Demonstration

1. Structural

(a) The sponsoring organization/entity. Founded in 1905, Lighthouse International (LI) is a large, non-profit organization that serves about 5,000 patients a year in the greater NYC area. About 80% are LV patients. Total revenue for LI was over $28 million in 2007, 60% of which came from Medicare. Other revenues come primarily from a contract with the State Commission for the Blind and from charitable contributions and endowment income.

The 15-story LI headquarters building in Manhattan was built in 1994 and recently renovated. Each floor of is laid out the same, with multiple, subtle way-finding tools from the elevators to the offices. Low vision facilities include several optometric exam rooms and LVT offices. Teaching spaces for LV patients include a laundry and a large kitchen. To support the LI's professional training, there is a seminar room with AV screens and a one-way mirror to an exam room through which students can watch a LV exam being performed by the optometrist. There is also a music clinic with large-print music, an integrated preschool, and an early intervention program. On the lower level there is a large conference center.

Most of LI's clinical services are delivered through a Diagnosis and Treatment Center licensed under NY State Article 28. The Center includes the LV practice, as well as podiatry, social work, ophthalmology, optometry, primary care, and LV optometric dispensing. They also have a mental health service center - licensed by Article 31 of the Department of Mental Health. It includes psychotherapy and psychiatric care for people with visual problems and their families. There is also a geriatric clinic, which will send nurse practitioners to homebound elders who are not getting eye care or exams. There is also a new diabetes center that will emphasize education and nutrition.

b. Doctors' and LV specialists' practice. The LV practice is located in the Diagnosis and Treatment Center. Prior to the Demonstration, non-Commission, LV patients accessing services at LI would receive an exam by the optometrist, an opportunity to purchase devices, and some training on how to use the device by a LVT. If they are not blind (20/60 to 20/200), and they qualify for Medicare, they can see the OMS or the LVT through the Demonstration. Other alternatives are referrals to the OT or social worker. The pathway is a function of their level of vision.

Since before the Demonstration, LI has been in the process of revamping its care model to use OTs to conduct many of the non-medical aspects of the evaluation and documentation, which allows the optometrist to focus on the medical history and the eye

exam. The doctor still develops the care plan; but the OT, who is reimbursed at a higher rate than the LVT, does the evaluation that the LVT was doing. The new model relieves doctors of some of the record keeping.

2. Financial

In the last few years LI has been re-branding to be more than a charitable agency that provides non-medical services to the blind to a health care provider whose patient base includes both the blind and the much larger LV population. They have a strategic relationship with Weill Cornell Medical College, one goal of which is to increase referrals of LV patients from Weill to LI and referrals of patients who could benefit from corrective surgery from LI to Weill. They are also forming relationships with other providers in the community so as to generate referrals.

Staff reported that one obstacle to becoming a health care provider for LV rehabilitation services is that low Medicare reimbursement for optometrists and LV rehabilitation services makes it financially difficult to serve Medicare patients. The increased use of OTs in the care model described in the previous section is a result of this view, and the Demonstration made LI realize even more clearly how they could maximize the use of the OT to increase revenue.

3. Providers and Beneficiaries

(a) Managers and professionals. Senior staff has experience in both health care and in services to persons with vision impairments. There are also senior mangers with long tenure at LI, including VPs for policy, educational services, and public health.

(b) Beneficiaries. Staff cited the ability to pay and to travel as issues for beneficiaries. Patients tend to be able to come to the Center once, and many do not want additional services in their homes. This makes the efficient organization of services during the visit important. To address these needs, LI is developing a model that assigns a patient care coordinator to each patient to help them through the visit and with transportation.

b. The Organization's Experience in the Demonstration

1. Structural

(a) Service delivery in the Demonstration. The structure of Medicare reimbursement rates inside of and outside of the Demonstration, as well as requirements and restrictions in what LI can do under state health care regulations, have forced LI to develop a service delivery system that does not include several of the service delivery features that were envisioned in the Demonstration design. For several reasons, senior staff members at LI believe that the LV delivery model for the future involves the optometrist, the OT, and the OMS.

First, there are clinical rationales for their model. LI is using OTs to perform many of the tasks traditionally performed by LVTs and VRTs, in part because OTs are paid at substantially higher rates by Medicare, and in part because LI finds special value in the clinical training of the OTs, which gives them better understanding of patients' co-morbidities. Except for teaching Braille, OTs were said to be good substitutes for VRTs and LVTs. At the same time, the OMS is essential for their unique work in outdoor mobility training, and they also have some physiology in their training.

Second, there are payment rationales for their model. Regular Medicare payment policies allow OTs to conduct disability assessments independent of physicians. Because there are no new payment categories in the Demonstration for the long LV assessments that optometrists conduct, revenue can be increased by shifting some of the assessment from the optometrist to the OT.

Third, because of state regulations, LI is no longer delivering VRT and OMS services in the home and community under the Demonstration. They provided these services initially, but they discovered a year into operations that the Article 28 license requires them to deliver all services on the premises.

This service model has had impacts on the use of the LV specialists. OMS and VRT services need to be provided in the LI headquarters building, e.g., cooking in the LI model kitchen or walking on the steps in the building. The Demonstration has been associated with tighter scheduling and expanded reporting. Now the LVT gets a list of clients who are coming to the center that day who might need LVT services. Assessments have not changed, but treatment goals are more detailed, and more documentation is required, including more detailed recording of time. Also, the limits on hours makes the therapists work together on knowing how much time is left in the year's benefit, which makes them economize.

(b) Facilitators and barriers and how addressed. Staff discussed only one way in which the Demonstration facilitated delivery of LV rehabilitation services: Now services can start right away, whereas the Commission takes a long time to make the assessment and approve a payment voucher. Beside this advantage, several barriers were described.

First, LI staff cited shortages of traditional rehabilitation specialists (VRT, LVT and OMS) as a barrier, especially shortages of OMSs. It is difficult to recruit and hire OMSs and VRTs. Therefore, even if LI were able to obtain approval for these staff to provide care outside the Center, it is not clear whether LI would have the staffing capacity to meet all clients' needs. Respondents said that there were only 10 VRTs in NY State, and LI employed 5 of them. They could hire OTs to provide comparable services to the VRTs and LVTs, but the services of the OMS are unique, and this might continue to thwart the Demonstration if the benefit were expanded nation-wide.

Second, the NY Article 28 regulations prohibiting in-home services are another key barrier to fully implementing the Demonstration for LI. LI could become a home health

agency or contract with a home health agency to delivery home-based services, but the low reimbursement rates for the LV specialists make this unattractive.

Third, services are limited to 12 hours from all professions. The LV rehabilitation services staff reported that they practice with more focus with Demonstration patients, and if the patients need a cane and more training, they refer them to the Commission if they are eligible.

2. Financial

(a) Reimbursement. LI staff members were unanimous in their view that Medicare rates for LV rehabilitation services are very low. These low rates affect provider behavior and utilization. First, the time required for the optometrist exam, approximately one hour, is not fully recognized in the rate. Billing staff reported that the rate for an evaluation by an optometrist (code 90203) is $107 in Manhattan, and the rate for an evaluation by an OT (code 97003) is $86. The OT and the optometrist can bill for their evaluations on the same date for the same patient. After the evaluations, the OT can bill under his/her own number outside the Demonstration for a variety of activities at between $27 and $34 per 15 minutes. All services by the OT using the Demonstration payment code (G99041) are paid at lower rates than the regular OT services: $26 per 15 minutes for the Demonstration code services. The Demonstration payment code services for OMS and LVTs (G98402 and G98403) are paid at $12 per 15 minutes, and the VRT services (G9044) is $11. Lighthouse receives 80% of those amounts and must collect the other 20% from the patients. LI administrators reported that on average, LI paid $46,000 for a VRT, $55,000 a year for a LVT, $60,000 for an OT, and $66,000 for an OMS. Given these personnel costs, and the Demonstration payment rates for these professionals, LI staff believes it makes sense to use the OT outside the Demonstration and to use the other LV specialists only when their services cannot be performed by the OT, e.g., for training by the OMS in outdoor mobility.

A second reimbursement problem is that devices and equipment are not covered under the Demonstration. This produces cumbersome approaches to getting equipment covered. A LVT reported being able to prescribe a long cane (the way-finding stick) but not a support cane. If the LVT thinks a patient needs that, a referral will be made to a PT, and Medicare will pay for the PT's assessment and the cane.

(b) Billing. According to billing staff, LI sees about 500 Medicare patients a month, although not all of them have been in the Demonstration. There were 3,000 claims submitted under the Demonstration as of the fall 2008, and 1,500 claims with Demonstration payment codes were outstanding. In the first year of the Demonstration, LI billed $140,000, including a small part for home care. In the second year, LI billed only $20,000 since they hired an OT and used the OT's provider number to bill under Medicare outside the Demonstration.

Billing and getting paid through the Demonstration has been a serious problem for LI, although billing problems have recently declined. One problem is that four of the NYC

Boroughs have Empire Blue Cross Blue Shield as an intermediary, while Queens is with GHI. In almost all of 2007 LI could not get paid for Demonstration billing codes from Empire. The problems were related to LI's Advantech billing system. When submission problems persisted, they moved to paper billing for months. Still, items were reported to be in the wrong place on the bills, and they had to submit claims four times. LI eventually hired an outside consultant for the Advantech claims. Then Empire said that the visit to the optometrist had to be billed separately from the LV specialist's claims with the Demonstration codes. Finally, LI changed systems from Advantech to ADS, and now it is working. The LI billing director met with the Executive Director for Senior Services at Empire about the billing problems. It took months to get the bills paid. LI has received only $25,000 in Demonstration reimbursement as of the fall of 2008, and staff expressed the belief that if they had not already been billing Medicare, it would not have made sense to set up what is needed for Medicare billing to get the $25,000 in revenue.

(c) Facilitators and barriers and how addressed. Staff did not cite any financial facilitators that have made the Demonstration easier or more effective than current practices. The major financial barrier has been low payment rates, which LI addressed directly. Perceived low rates for the optometrist's LV exam under both Demonstration and regular Medicare rates caused LI to use OTs to perform part of the LV assessment. Similarly, low rates for LV specialists caused LI to use OTs to perform some of the tasks that LV specialists typically perform. Administrative staff reported that the 80% of the Medicare rates that LI receives in revenues do not come close to covering the salaries of non-OT LV specialists at LI due to the fact that only a fraction of working hours are billable, the costs of transportation, and organizational overhead. LI decided to deliver the services anyway because they believed in the Demonstration and wanted to show that the services were feasible and beneficial. However, the low rates significantly reduced the extent to which non-OT LV specialists were utilized.

3. Providers and Beneficiaries

(a) Managers and professionals. The goals of the Demonstration are consistent with the LI leadership's vision for LV rehabilitation services under Medicare, since the goals promote the idea of expanded services and an expanded LV team. The Demonstration has been a tool to get people to understand that LV rehabilitation services are available and at lower acuity (20/70) than blindness (20/200). LI's leaders have gone to the NY City Council and other elected officials, as well as to city-wide conferences with the aging network, to talk about the Demonstration.

Another hope expressed by LI leaders is that doctors - both optometrists and ophthalmologists - would be involved in planning and implementation so they would support the inclusion of LV rehabilitation specialists in the medical system. One change the Demonstration did foster was that it brought providers together who have historically not worked together, and this is good.

(b) Beneficiaries. According to reports from LI staff, the Demonstration appears to be having positive effects for Medicare beneficiaries, but there are some ways that effects

could be improved. First, the Demonstration has opened up services for the non-blind. Before the Demonstration the majority of LI's patients were within the eligibility categories of the Commission for the Blind: over 55, blind, US citizens, and not wanting to work.

Second, the LV rehabilitation services are reimbursed, which reduces the need for beneficiaries to pay out of pocket. Also, for the majority of beneficiaries, the 12-hour per year limit is not a factor, since most patients have only one visit to LI. Staff report that the length of participation of the typical Medicare patient is within the original 90-day limit. The usual service pattern is the evaluation, training in a device, try it out at home, and come back two weeks later if there is a problem. The patients who go over 90 days are those who travel out of state or who go to the hospital. The other reason they would come back beyond 90 days is if there was a change in vision.

Third, LI's inability to deliver Demonstration services in the home is a barrier for some beneficiaries, but in fact, staff reported that most do not need a home visit, and that many who do need services at home do not want staff members to come into their homes. More challenging is to meet beneficiaries' preferences for getting all their services in one visit, as described above in the description of the pre-Demonstration system (see Section 3b on page 68).

Fourth, although it has been a goal of LI to obtain more referrals from eye care providers, this has been difficult, and this affects beneficiaries' access to LV rehabilitation services. Community eye care specialists were reported often not to understand why they should refer LV patients to LI. Some do, but staff reported that they hear from patients that other doctors say "there's nothing to do." There has been no increase in referrals due to the Demonstration. Lighthouse is changing its capacities by adding a diabetic educator and primary care. This may identify more patients in need of LV rehabilitation services within the LI system

Finally, the lack of Medicare reimbursement for devices and equipment has been a barrier for patients who are not eligible for services from the NYS Commission on the Blind. Beneficiaries with vision problems often have other expensive health care needs, and they generally have low incomes. There are some charitable funds in LI to cover low-cost devices.

c. Summary

1. Characteristics of ideal LV service model for Medicare beneficiaries

According to LI informants, an ideal LV rehabilitation services' model for Medicare beneficiaries would have (1) strong referral relationships with other eye care providers so that greater numbers of eligible beneficiaries have a chance to receive LV rehabilitation services, (2) service eligibility that includes low vision not just blindness, (3) service by the full team of LV providers in the clinic and in the home and community, and (4)

provision of an adequate number of hours and appropriate devices and equipment to serve all of a patient's needs.

2. Performance vs. ideal at this site

LI has been able to provide some of this service model through the Demonstration, as well as additional service outside the Demonstration, but some parts fall short of the ideal. It has been difficult to increase referrals of beneficiaries with LV service needs, despite a variety of outreach efforts by LI, and despite the expanded eligibility under the Demonstration. An expanded team of providers has been available, but a key provider in the LI model - the OT - is more often paid by Medicare outside the Demonstration rather than under the Demonstration codes. Low Demonstration payment rates and state licensure restrictions have led to minimal use of the traditional LV specialists that the Demonstration was designed to cover. The lack of an OMS in the team has been a particular shortcoming. For the minority of patients who have extensive needs, LI has not found consistent ways to overcome the limitations on hours of service or the lack of coverage for LV equipment and devices. Unless patients are eligible for the NYS Commission for the Blind or have sufficient resources to pay out of pocket, there is a good chance that patients will not receive all the services they need.

Appendix C3:

Metrolina Association for the Blind, Charlotte, NC

a. Experience before and outside of the Demonstration

1. Structural

(a) The sponsoring organization/entity. The Metrolina Association for the Blind (MAB) was established in 1934. It is a non-profit corporation that receives most of its income from a wholly owned business that produces Braille documents for banks and credit card companies, allowing them to send Braille statements to their customers. The MAB headquarters and the Braille business are located near downtown Charlotte, but MAB clinicians see clients primarily in a satellite LV clinic a few miles to the east. The LV clinic has an exam room, an office for the LVT, and another room with a variety of LV closed-circuit TVs, which are available for loan. MAB does not have a retail store. Besides administrative staff and the Braille business workforce, MAB employs six LV specialists, including LVTs, VRTs, social workers, and OMSs.

(b) Doctors' practice. The LV clinic is open Tuesdays and Thursdays, and staff see three clients one of the days and four the other. The satellite space, as well an optometrist who sees clients there on a per diem basis, were both added to upgrade services for the Demonstration. Previously, clients were seen in a smaller space in the headquarters by optometrists who billed independently. The optometrist does not perform LV exams in her private practice because it costs too much in non-reimbursed time. MAB has conducted outreach concerning its LV rehabilitation services to optometric and ophthalmic practices since 2004. More than 70% of the optometrist's patients at MAB are Medicare beneficiaries.

(c) LV specialists' practice. Several LV specialists are involved in assessment and services at MAB, including social workers, LV therapists, vision rehabilitation specialists, and orientation and mobility specialists. Most of the specialists are certified in more than one area. The social worker is the first contact for all clients who come to MAB. The social worker assesses needs, has the client sign a release for medical records, and recommends services to address needs, including seeing the optometrist, reading devices, adaptations for independent living, groups, mobility help, and transportation. The intake summary, care plan, and medical records go to the optometrist for his/her OK, and the care plan is presented to the client by the social worker in a later visit.

2. Financial

MAB does not charge or bill for its services outside of the Demonstration. Sources of funds include net income from the Braille business, which was about $4 million a year at the time of the site visit. United Way funds make up 12% of MAB's budget; some revenue comes from a small endowment; and less than 2% of funding comes from individual donations and fundraising. MAB does not bill Medicaid because it involves

too much administrative work for the revenue generated. MAB does ask clients for a contribution. MAB also has $100 per client available for purchase of devices for clients who are not able to pay on their own.

3. Providers and Beneficiaries

(a) Managers and professionals. As early supporters of the Demonstration, MAB staff had hoped that more NC physicians and optometrists would become involved in the Demonstration, but they fear this is not happening since the payment rates are too low to cover costs, and independent optometrists and ophthalmologists seldom provide services that are not adequately reimbursed.

(b) Beneficiaries - MAB's primary service area is composed of three entire counties and half of another in the Charlotte metropolitan area. Clients who use the clinic are usually transported by family and friends, which is the only option from the outlying counties. In Charlotte, there are also free rides to medical care from the Red Cross, rides from the MAB driver, and public transportation. Staff report that LV rehabilitation services are much more difficult to access in the rest of the state, because comparable charitable organizations serving the blind and LV populations do not exist. Limited LV rehabilitation services may be available through county social service departments.

b. The Organization's Experience in the Demonstration

1. Structural

(a) Service delivery in the Demonstration. MAB leaders reported that to participate in the Demonstration, MAB switched to the "medical model," which includes not only conforming to Medicare requirements for care planning, documentation, and billing, but also calling their service users "patients" instead of "clients." Service delivery in the Demonstration follows the pattern of assessment, care planning, and service delivery as described above in the section on provision of LV rehabilitation services outside the Demonstration, but delivering these services through Medicare has required changes, particularly in new paperwork, but also in the nature of the clinical relationship with clients.

Specifically, the social worker needs to ask the patient to sign a release to bill Medicare, to obtain the patient's Social Security and Medicare numbers, and to obtain Medicare supplemental insurance coverage information. There is also an additional privacy statement that requires explanation and a signature. Finally, the social worker explains the Medicare Demonstration project and its effects, including the paperwork patients will receive from Medicare, the 12-hour limits and the 5-year length, the benefit of the Medicare project and the hopes that its findings will lead to expanded services for other beneficiaries. The social worker explains they should not worry about a Medicare letter that says that MAB could bill them, since MAB has a policy of not billing for services and paying for any bill from their other revenues.

Other LV provider respondents noted the changes in documentation required by Medicare, e.g., changing goals from "teaching" to "training," from "reinforce" to "continue to train," from "client" to "patient," and from long-term goals to short-term goals. The additional paperwork and changed approach to service were reported to have affected the clinical relationship. The social worker reported that the collection of billing information may make it more difficult to establish a trusting relationship. The LV specialists reported that changing from long-term to short-term goals and methods requires showing the need and the change every two visits. This results in more time spent documenting and less time teaching.

(b) Facilitators and barriers and how addressed. A positive result of the Demonstration is that having an optometrist under contract has strengthened MAB's ties with other doctors in the community. MAB is able to obtain more information about patients from other doctors, and MAB is able to offer them a report on their patient's visit to the satellite clinic. The MAB optometrist also does community marketing to ophthalmologists, but staff reported that results have been mixed. Not only have referrals increased, the referrals are also earlier in the illness/impairment.

The only significant barrier to service delivery is the extra time to explain the Demonstration, collect Medicare billing data, and complete documentation. Staff have addressed this barrier by completing training and changing practice.

2. Financial

(a) Reimbursement. Staff reported that Medicare revenue through the Demonstration helps MAB reduce their subsidy for LV rehabilitation services, but their costs for the optometrist as well as the LV specialists far exceed Medicare payments. MAB's best estimate of fully loaded costs for LV specialists is $37.50 per 15 minutes, which is what MAB sends in on the bill. They are reimbursed $7.06 per 15 minutes for the LVT under Demonstration code G9043. MAB bills for the optometrist's services using the MAB Medicare number - not the optometrist's. The optometrist codes most of the exams as Level 4, and the Medicare reimbursement is much less than hourly rate MAB pays the optometrist under the per diem contract.

Both managers and clinicians reported that paying LVTs, VRTs, and OMSs at half the rate that OTs are paid adversely affects staff morale. These specialists often have one or two Masters degrees in education, compared to OTs, who may have only Bachelors degrees.

(b) Billing. Prior to the Demonstration, MAB's only Medicare billing was for a social worker who was supervised directly by a clinical psychologist. MAB checked with the Medicare Carrier and were told that they could use that billing number for the Demonstration. However, as soon as they billed they were told that their Medicare number was invalid because they had not billed under it for more than a year. It took them a full year to obtain a new Medicare number under which they could bill

successfully for Demonstration services. To obtain the Medicare number they had to modify every form they used.

Another problem was that the Carrier initially was not familiar with the Demonstration's billing codes, and MAB's bills were repeatedly denied. Also, Medicare penalized them up to $12 per person for filing late even though the reason for filing late was that MAB had to re-file claims because the Carrier kept rejecting them. Based on the Carrier denials, the secondary insurers automatically denied claims as well.

To handle the Medicare billing, MAB spent several thousand dollars on MediSoft software plus $79 per month to transmit claims electronically. They also developed their own software, which "flags" accounts so that Medicare will not be billed for any hours over and above the 12-hour limit for that account. Before this system, they had some claims denied because they were over the 12-hour limit. The LV staff reported that they are now cautious about what to bill to Medicare. For example, the VRT will not bill Medicare for showing patients the options for restoring their handwriting skills. But once the patient chooses an approach, hours will be billed for training and showing progress. In addition to the time spent by clinicians and billing personnel on billing, the Demonstration coordinator spends 6-hours per week addressing Medicare billing issues.

During the first year of the Demonstration (4/1/06 - 3/31/07), MAB billed Medicare $77, 298 for 157 beneficiaries. During the second year of the Demonstration (4/1/07 - 3/31/08), MAB billed Medicare $98,082 for 250 beneficiaries.

(c) Facilitators and barriers and how addressed. The MAB staff reported that one of the major frustrations of participating in the Demonstration was that there were not many supports that facilitated the adoption and implementation of the Demonstration at MAB. On the one hand, staff reported that the affiliation with other providers in the VisionAlliance afforded some help, but for the most part they felt they were on their own to solve problems. It would have helped to have expert guidance on how to get started, on documentation, and on what would be acceptable to bill. On the other hand, two financial benefits were cited from having the Demonstration: improving the electronic information system, and adding Medicare to the revenue base.

Staff reported that providing LV rehabilitation services through Medicare also had adverse effects on relationships with beneficiaries. A few patients reportedly refused services when they heard Medicare would be billed. Also, some patients suggested that MAB was defrauding Medicare, especially in the first year. Every time MAB submitted a bill, the patient received a statement which said the bill was submitted but not paid. Some patients thought it was multiple bills for the same service, when in fact it was the Carrier refusing the bill because MAB did not have a valid Medicare provider number. When the bills were re-submitted with the valid number, and the Carrier would not accept the Demonstration payment codes, the patients thought the bills were getting rejected due to fraud.

3. Providers and Beneficiaries

(a) Managers and professionals. MAB leaders pointed out that they are a unique organization in NC in that they can offer the Demonstration by subsidizing it with charity money. They expressed hope that what they have learned and have shown will illustrate the need for LV rehabilitation services as well as models for providing them.

(b) Beneficiaries. Several staff reported that participating in the Demonstration has changed the relationships between MAB and the Medicare beneficiaries it serves. This is associated with the additional personal and billing information that needs to be collected, calling them "patients" rather than "clients," and having to explain all the denials for bills.

c. Summary

1. Characteristics of ideal LV service model for Medicare beneficiaries

According to MAB respondents, an ideal LV service model for Medicare beneficiaries would have several characteristics that are not part of the Demonstration:

- Increasing the 12-hour annual limit. Although 12 hours a year is generally enough for the LVT to help a patient choose and use a device, it is seldom enough for a VRT or an OMS. Twelve hours was reported to be a floor for the latter, who can spend up to 100 hours with a patient. Some staff cited the inequity of putting hour limits on vision rehabilitation when there are no such limits for other rehabilitation in Medicare. Moreover, the optometrist pointed out that eye conditions are often degenerative, and a second round of services might be needed within a year.

- Covering teaching: The services of VRTs and OMSs are reportedly difficult to quantify, as is required to bill Medicare. For example, teaching a patient to make a trip to the grocery store might cover 15 different topics during one lesson. It takes a great deal of time to quantify everything for each patient at the end of the month. Much of the Medicare paperwork becomes very repetitive.

- Covering devices: Several of the staff recommended that Medicare cover devices, since devices are covered for other disabilities.

- Vision cut-offs: The optometrist believes that it is a barrier to require 20/70 vision to qualify for the basic optometric exam. There are people with better vision than that who could benefit. A better cut-off would be 20/40 vision, which can cause significant reading difficulties.

2. Performance vs. ideal at this site

Because MAB has charitable resources and professionals who are experienced in serving the needs of LV patients, MAB was able to address some of these shortfalls of the Demonstration design. They have a fund to cover devices, and they can also supplement LV rehabilitation services that are limited by the Demonstration limits on hours served. Overall, MAB transitioned to becoming a Medicare provider and biller for LV rehabilitation services, while maintaining and even enhancing its core set of services.

Appendix C4:

Community Services for the Blind and Partially Sighted, Seattle, WA

a. Background on organization and its LV rehabilitation services independent of the Demonstration

1. Structural

(a) The sponsoring organization/entity. Community Services for the Blind and Partially Sighted (CSBPS) serves four counties in Washington State, representing 150-square miles of service area. Their office is located in Seattle and includes a LV clinic, a LV equipment store, and a used clothing store. The annual budget in 2007 was $1.6 million. Given their large catchment area and the difficulty some clients have accessing Seattle, CSBPS operates two satellite clinics and also serves some patients in their homes. Of the 1,400 patients served in 2008, about 900 were seen in the eye clinic and 500 were served exclusively though home-based services. There are other agencies in the Seattle area that provide LV rehabilitation services, but CSBPS is the only one with certified LV staff and therefore the only agency eligible to participate in the Demonstration.

Patents come to CSBPS through physician referrals, self-referrals, state agencies, visiting nurse associations, and family/friend referrals. CSBPS has a large and strong physician referral network comprised of about 200 physicians (optometrists and others). CSBPS also has a subcontract with Group Health (a large managed care organization) to provide LV rehabilitation services to members. CSBPS receives about 10 to 20 referrals a day and maintains a two-month waiting list for the LV clinic.

(b) Doctors' practice. CSBPS operates the LV clinic four days a week. The LV clinic is staffed by one optometrist and two LV specialists. The clinic practice varies slightly by how a patient is referred to CSBPS. Patients referred by an eye physician typically come to CSBPS with a medical diagnosis and a referral for an exam in the LV clinic. For many patients, the LV clinic exam is the extent of the services they receive from CSBPS. For patients who are unable to come to the clinic, the social worker visits them in their homes to complete a needs assessment and develop a care plan. For patients who are referred by a caregiver, CSBPS again contacts the patient by phone to collect basic information and to assess where best to start, which in some cases is a visit to the clinic and in other cases is the social worker home visit to assess the patient's needs.

(c) LV specialists' practice. CSBPS employs social workers, LVTs, VRTs, OMSs, and a technology assistant. The technology assistant provides services to patients who want help working with computers. Of all these LV specialty staff, CSBPS tends to use the social worker and the LVTs the most.

2. Financial

CSBPS revenue sources include third-party payers, grants and contracts, charitable contributions, and the two stores. CSBPS also operates an LV equipment and supplies store and used clothing store, which together generated 38% of their $1.6 million in revenue in 2007. Other sources of 2007 revenue included returns on reserves (25%), United Way (14%), program fees (7%), Department of Services for the Blind contract (6%), contributions/bequests (6%), and other (4%). Third-party payers added additional revenue but were much smaller. Third party payers include Medicare (about 60% of CSBPS clients are Medicare beneficiaries), Group Health (which operates a Medicare Advantage Plan as well as other plans), and to a lesser extent Medicaid. CSPBPS rarely serves self-pay patients. CSBPS bills third-party payers for the optometrist. CBPBS relies on charitable contributions to cover the cost of the LV therapies.

3. Providers and Beneficiaries

(a) Managers and professionals. Managers and other professionals at CSBPS reported that only a small minority of eye physicians in their state provide LV rehabilitation services. The reasons for this include both lack of interest and lack of incentive under current third party payment systems, including Medicare. They had hoped that the Demonstration would change these incentives and therefore increase interest, but this has not happened.

(b) Beneficiaries. CSBPS staff believes that there is substantial need for LV rehabilitation services and that the need is probably underestimated. They often hear from new patients that they had no idea an agency like CSBPS existed. Patients who are visually impaired are not always willing to receive recommended services, especially home-based services.

b. The Organization's Experience in the Demonstration

1. Structural

(a) Service delivery in the Demonstration. In implementing the Demonstration, CSBPS did not change any of its care protocols. The agency was already a Medicare provider and had years of experience submitting claims for the LV exam. Additionally, the optometrist was already responsible for care planning and monitoring for LV clinic patients. The only change for CSPBP under the Demonstration was that they could now submit claims for the LVT. CSBPS is not billing for the VRT and OMS because patients needing the services of a VRT or OMS rarely come to the LV clinic, and the optometrist will not sign a care plan for a patient she has not examined.

(b) Facilitators and barriers and how addressed. The barriers to service delivery at CSBPS relate to several factors that keep some beneficiaries out of the system. One was just noted above: the inability to obtain the doctor's signature on the care plan for patients who cannot travel to the LV clinic. Another is the restriction on services to patients who

fall outside of the Demonstration's vision acuity restrictions. CSBPS receives a considerable number of referrals for patients whose eyesight is better than 20/60, and the professionals' view is that seeing patients early allows the optometrist to establish a relationship with such patients and to work with them as their vision deteriorates. In both of these cases, CSBPS addresses the barrier by seeing these patients outside of the Demonstration framework through charitable or contributory payment systems.

Respondents proposed another model that would address the barrier that beneficiaries face to traveling to CSBPS's LV offices. This would be to allow LV specialists to bill as independent providers. Under this model, the LV specialist would be responsible for developing a patient's care plan, working directly with the patient's physician for his/her sign off, and then billing Medicare. This model could greatly expand the availability of LV rehabilitation services to Medicare beneficiaries who cannot access a service at a provider like CSBPS.

2. Financial

(a) *Reimbursement.* Through the end of 2008, CSBPS had received about $4,000 from Medicare under the Demonstration. Relative to its $1.6 million operating budget, reimbursement under the Demonstration is thus very small. Because CSBPS uses only the LVT and not the VRT or OMS in the Demonstration (see Section b1(a) on page 71), it has only billed under one of the three new Demonstration payment codes.

(b) Billing. CSBPS did not experience any significant problems with billing under the Demonstration. At the start of the Demonstration, the intermediary did not recognize the new Demonstration payment codes and claims were denied as a result. However, these problems were corrected quickly.

(c) Facilitators and barriers and how addressed. Several CSBPS respondents indicated that the low Demonstration payment rates for LV specialists, as well as the lack of new rates for the optometrist's LV exam, were not a barrier for CSBPS participation. Although the rates did not cover costs, they offset some costs and allowed other revenue sources to go farther. However, CSBPS staff pointed out that for providers not yet billing Medicare, it would not be worth the time and effort to become a Medicare provider because the return on investment would not be realized under the current Demonstration rates.

3. Providers and Beneficiaries

(a) Managers and professionals. Managers and professionals at CSBPS incorporated the parts of the Demonstration that fit with their service delivery practices and left out other parts. Most importantly, their practice did not allow their optometrist to sign a care plan without seeing a patient, and some patients lived too far from the CSBPS service sites to travel to see the doctor. Management developed a Demonstration participation model that included beneficiaries who could travel to a service site and be seen by the optometrist and a LVT, and Medicare was billed for these services. At the same time,

beneficiaries who could not travel were seen by a social worker, who conducted the assessment and developed a care plan that might include the other professionals, including a VRT and/or OMS, whose services were not billed to the Demonstration.

(b) Beneficiaries. The CSBPS staff reported that the cost of LV devices is a barrier for some patients. If the cost of devices had been covered under the Demonstration, it might have facilitated higher enrollment. Additionally, as described above, beneficiaries who could not travel to a CSBPS service site could not have the costs of a VRT, LVT, or OMS covered by Medicare. These barriers were overcome for some beneficiaries by charitable funds and by others by paying a contribution toward their services and devices.

c. Summary

1. Characteristics of ideal LV service model for Medicare beneficiaries

Based on comments from respondents, an ideal LV service model for Medicare beneficiaries would have several characteristics that are different from the Demonstration, including:

- Paying for devices: The cost of LV devices is significant and can be a barrier for patients needing LV rehabilitation services.

- Increasing the rates: For non-Medicare providers, the cost of becoming a Medicare provider would not be worth it given the low reimbursement rates for LV rehabilitation services.

- Care planning: An ideal system would allow LV specialists to bill as independent providers. In this way, the LV specialists would be able to work directly with each patient's physician to coordinate care planning.

2. Performance vs. ideal at this site

CSBPS successfully implemented the Demonstration, enrolling more than half of its Medicare clients in the Demonstration benefit. The conditions that helped to facilitate implementation at this site include the fact that CSBPS was already a Medicare provider, that it operated a LV clinic that was supported by an extensive and strong referral network, and that it employed LV therapists, some of whom worked at the LV clinic under the direction of the optometrist.

The main barrier to CSBPS implementing the Demonstration across its entire patient population concerned the Demonstration requirement that LV therapies be prescribed and monitored under a care plan approved by an optometrist. About one third of the patients served by CSBPS received all LV therapies in their homes, never traveling to the eye clinic. In these cases, a social worker developed the care plan, but the optometrist was unwilling to approve a care plan for a patient she had never examined. At the same time, patients who were served in the eye clinic often did not need or would not accept home-

based services. As a result, of the three new Demonstration payment codes, CSBPS was only able to bill under one (the LVT who worked in the clinic) and not the other two (the VRT and OMS who primarily provided home-based services to patients who did not need to or were unable to travel to the eye clinic).

Appendix C5:

The New Hampshire Association for the Blind, Concord, NH

a. Background on organization and its LV rehabilitation services independent of the Demonstration

1. Structural

(a) The sponsoring organization/entity. The New Hampshire Association for the Blind (NHAB) is a state-wide, non-profit agency serving residents who are blind and visually impaired. Its core focus is rehabilitation and teaching, and it relies primarily on charitable contribution to support its work. In fiscal 2008, NHAB provided clinic-based and home-based services to 1,493 clients, group services to 590 clients, and information services to another 8,282 clients, about two-thirds of whom are over 70 years old. One in five clients is referred to NHAB by an optometrist or other medical provider. The remaining clients are self-referred, referred by the Veterans Administration, or referred by the NH Independent Living Program (ILP), the state-run program that covers services for the blind and visually impaired.

NHAB employs 31 staff including LVTs, VRTs, OMSs, and a full-time Assistive Technology Specialist who teaches regular classes that are available for individuals and small groups. NHAB also operates departments of Social Work, Assistive Technology, Volunteers, and Education. It does not employ medical providers but rather invites independent optometrists to conduct LV exams in its Concord office. NHAB also operates a computer lab, which supports new technological advances for people who are blind and visually impaired.

(b) Doctors' practice. NHAB does not employ or contract with optometrists to conduct LV exams. Rather, it relies on referral relationships with community ophthalmologists and optometrists for referrals of patients who need LV rehabilitation services. Its most important referral source is the Eye Center of Concord, with which NHAB established a contract to participate in the Demonstration (detailed in Section b1(a) on page 77).

The Eye Center is a medical eye practice with 20,000 active patients, of whom about 55% are Medicare beneficiaries. The Eye Center employs five ophthalmologists (with varying subspecialties such as corneal and cataract specialists, and retina specialists), two optometrists, and several technicians. Referrals to the Eye Center come from other physicians in and outside the practice, and from family and friends of existing patients. The Eye Center does not provide LV rehabilitation services, although it did in the past. It had a LV specialist on staff but she now works for NHAB. The Eye Center now refers patients who need LV rehabilitation services to NHAB. As a percent of total patients served by the Eye Center, relatively few are referred to NHAB. The corneal and cataract specialist refers about 1% of her patients, and the retina specialists refer slightly more because they see more patients who are blind.

An eye exam at the Eye Center starts with a technician who asks the patients why they came to the Eye Center, reviews their medical history, and completes an eye exam (which mainly focuses on eye pathology). The physician then joins the exam, reviewing the technician's work and deciding on a course of action, which can include surgery or referral for additional evaluation by another specialist. Physicians will not make a referral to NHAB until they have explored all possibilities and determined that nothing more can be done medically. If a referral to NHAB is recommended, the physician notes the referral in the patient chart, the technician completes a NHAB Eye Examination Form, and faxes the form to NHAB and also calls NHAB to notify them about the referral. NHAB follows up directly with the patient.

(c) LV specialists' practice. The NHAB clinic is the preferred location for staff to complete the LV functional assessments and to deliver LV rehabilitation services. NHAB described it as a more comprehensive place to do evaluations and provide services than the client's home. It is also more efficient if clients are scheduled right. At the same time, given the distance some clients must travel, it is not always possible for a client to get to NHAB. In these cases, NHAB either schedules the assessment in one of several clinics throughout the state with which NHAB is associated, or else in a client's home. If the client needs VRT or OMS services, these are typically provided in the home and community, since these are the best places to provide these types of services.

2. Financial

NHAB's annual operating budget is $2.2 million. Sources of funds include the NHAB endowment (valued at $6 million) and the state program for the blind and visually impaired (about 13% of NHAB's annual budget). In 1990, NHAB downsized but then in 1996 revamped its approach, expanding core services, adding group services, and cross-training staff. This change allowed NHAB to increase the number of referrals it can serve a week from 27 to 55, without having to add more staff.

NHAB serves a patient population that is predominantly low income. NHAB does not bill for services, but if clients ask about payment, NHAB invites them to make a donation but does not specify an amount. For clients who meet the requirements of the ILP programs, the state pays NHAB a fee. NHAB is not and does not want to become a Medicare provider, mainly because it does not want to be subject to Medicare rules requiring a uniform fee schedule and specific billing and collection protocols. Most of its clients are very poor, and few could afford the co-payments under Medicare.

The Eye Center relies exclusively on third-party payers: about 60% Medicare and 40% commercial insurance. Among the Medicare patients, a few are dually-insured with Medicaid. Commercial insurers are the best payer, followed by Medicare and then Medicaid. Respectively, these payers pay the following for a regular eye exam: $100, $68.83 (this is the allowable charge of which Medicare reimburses 80%), and $15. Eye Center staff reported that NH Medicaid does not cover the 20% balance for Medicare patients.

3. Providers and Beneficiaries

(a) Managers and professionals. Professionals and managers at NHAB reported that they are comfortable and experienced with their traditional approach to LV rehabilitation as a matter of teaching rather than training. They prefer the term "client" to "patient." They decided to participate in the Demonstration because they support the expansion of Medicare coverage to include LV rehabilitation services and providers, but they decided not to convert their organization to a medical provider to do so.

Physicians at the Eye Center reported that it is difficult for them to initiate a conversation with patients about LV rehabilitation services. Part of the challenge stems from patients' reluctance to accept their condition. Another barrier is a physician's willingness and ability to have such conversations with patients. Given a limited number of minutes available for the eye exam, physicians do not feel they have the time to talk to patients about their functional needs and how LV rehabilitation services might help. Such conversation could extend the normal 10-minute exam to 25 minutes. Physicians also feel they lack the expertise to talk to patients about permanent vision loss and non-medical interventions. Irreparable vision loss has significant psychological impacts, and most physicians are not trained in how to communicate with patients about interventions that will help patients function with their vision loss. Given this, physicians tend to wait for patients to initiate the conversation. The Eye Center does provide written material to patients with vision loss, which describes tips and techniques for managing LV.

(b) Beneficiaries. NHAB staff and managers emphasized that their clients tend to be poor and isolated by travel barriers and also often in denial about their vision loss and their need for LV rehabilitation services. An estimated one third of NHAB clients have annual incomes of less than $10,000, and another 40% report annual incomes between $10,000 and $19,999. Only 13% have annual incomes that exceed $30,000. NHAB provides travel assistance for clients wishing to receive services at the Center, either by taxi paid for by grants to NHAB or by volunteer drivers. If clients live in the Concord metro area, public transportation is available. Other metro areas in NH also have public transport, but there is no inter-city public transportation. For clients who live in the rural parts of NH, there is no form of public transportation. Clients are often unable to find someone to drive them to NHAB. Because of these conditions, NHAB provides services in clients' homes.

According to Eye Center staff, many patients who seek services at the Eye Center could benefit from LV rehabilitation services (especially those with macular degeneration), but few patients are willing or able to acknowledge their vision loss. Others are deterred by the name of NHAB, i.e., being referred to an association for the "blind," a word which scares patients. Some patients also complain about the cost of the LV devices sold by NHAB.

b. The Organization's Experience in the Demonstration

1. Structural

(a) Service delivery in the Demonstration. NHAB formed a study group to determine how they could participate in the Demonstration without becoming a Medicare provider. The group recommended that NHAB partner with an eye medical group, which would be responsible for billing under the Demonstration. NHAB eventually formed a partnership with the Eye Center of Concord, which already referred to patients to NHAB.

Under the written agreement between the Eye Center and NHAB, the Eye Center agrees to refer qualified patients to receive service under the Demonstration to NHAB, and to be responsible for billing Medicare. NHAB may also refer clients to the Eye Center if they are not already under the care of a doctor. Within the Eye Center, technicians were asked to identify patients who might be eligible for the Demonstration and to recommend these patients to the eye physician who is ultimately responsible for approving the referral. If approved, the referral is faxed to NHAB. All paperwork that comes back from NHAB related to a Demonstration participant (such as the care plan) goes through the Eye Center Clinical Supervisor. The Supervisor gives the paperwork to the referring physician who reviews information with his or her technician and signs the care plan. The Eye Center focused on technicians as key parts of the identification process because the technicians spend more time with the patients, which allows them to be relatively more focused on functional needs, as opposed to clinical needs. NHAB is responsible for developing the care plan, providing the LV rehabilitation services permitted under the Demonstration, and monitoring patient progress. The Director of Social Work at NHAB is responsible for the process, including intake, care planning and interfacing with the Eye Center.

In preparing to implement the Demonstration service delivery model, NHAB engaged in a series of meetings with the Eye Center and also developed new forms and protocols. NHAB staff spent time at the Eye Center, learning more about the practice. A group of technicians (5 to 6) from the Eye Center visited NHAB for a tour to become more familiar with NHAB services. NHAB developed new forms for their own staff to ensure that documentation of service use would support the Eye Center's billing under the Demonstration. New forms were also developed to complete patient assessments that would support care planning.

NHAB also developed a new Eye Examination Form for the Eye Center, designed specifically for patients who are referred under the Demonstration. The new form asks for additional information beyond the regular referral form, and has a place to check off whether the patient is being referred for Demonstration services or not. A second change for the Eye Center under the Demonstration related to the exchange of information between the Eye Center and NHAB. For non-Demonstration patients who are referred to the Eye Center, the Eye Center does not receive any information or paperwork back from NHAB. The Eye Center may ask patients if they followed up on the referral, but that is

about all. In contrast, for patients referred into the Demonstration, NHAB sends back information about the patient, their care plan, and their progress.

(b) Facilitators and barriers and how addressed. At the time of the site visit, only seven beneficiaries had received services under the Demonstration over two years of operations. Respondents attributed low utilization to implementation issues at both the Eye Center and NHAB. One reported factor at the Eye Center was the absence of a "champion" to persistently advocate for the Demonstration. For example, after the initial setup period, Eye Center senior staff acknowledged doing little to keep the Demonstration alive in the minds of their staff, such as providing ongoing training and reminders about the Demonstration. Staff became confused about who was responsible for what under the Demonstration, including whether the Eye Center or NHAB was primarily responsible for identifying Demonstration participants. Another barrier to participation under the Demonstration was the new eye examination form designed for referrals to NHAB under the Demonstration. Eye Center technicians found the new form confusing and did not understand the new information being requested. The technicians eventually stopped using the new form. Another factor that might have inhibited referrals of patients to NHAB for the Demonstration was lack of clarity about whether the physician or the technician was responsible for telling patients about the Demonstration and making the referral. Another factor was that Eye Center technicians are not accustomed to thinking about a patient's insurance status, so when the Demonstration asked them to identify Medicare beneficiaries, this was new and difficult.

Respondents also pointed to factors in NHAB's approach that may have kept referrals low. One was NHAB's decision to partner with only one medical eye practice. The rationale was that NHAB wanted to start with one eye practice so they could work out the details before expanding to other practices. It took almost a full year to work out the details of the partnership between NHAB and the Eye Center, including new protocols, reporting, and channels of communication. Going through that process with multiple eye practices did not seem feasible. Another was that the referral form that NHAB developed for the Eye Center was reported by Center staff to be difficult to complete. Another was that NHAB staff might have identified potential Demonstration participants among Eye Center referrals who were not referred for the Demonstration but who might have been eligible. Finally, implementation teams were not effective in identifying and addressing problems when they arose. Although NHAB called the Eye Center periodically in the early months of the Demonstration to inquire why there were not more referrals, these calls eventually stopped.

Despite the low referral rates for the Demonstration, NHAB respondents believe that the Demonstration has fostered a tighter relationship between them and the Eye Center. For instance, one of the Eye Center physicians now sits on the NHAB advisory board. However, this improved relationship did not foster more referrals.

2. Financial

(a) Reimbursement. Under the agreement between NHAB and the Eye Center, the Eye Center bills Medicare for services under the special Demonstration payment codes. The Eye Center and NHAB share the reimbursement (20% and 80% respectively). Given the low reimbursement rates under the Demonstration, neither agency expected the Demonstration to yield net revenue, let alone cover the cost of operating the Demonstration. Rather, the incentive for participating, as stated in the written agreement between the Eye Center and NHAB, was to support an effort aimed as at "bringing about the addition of these specialized services to the Medicare system."

The Demonstration has not affected the number of Medicare beneficiaries served at the Eye Center or NHAB. Since the start of the Demonstration, the Eye Center has referred 8 patients to the Demonstration. Seven of them participated for a total of 26.5 hours of services. The Eye Center has continued to make non-Demonstration referrals at about the same rate as prior to the Demonstration.

(b) Billing. The Eye Center experienced no problems billing under the Demonstration. Their Carrier accepted the new Demonstration payment codes from the start, and the Center received the 80% payable by Medicare. The Eye Center did have problems with Medicare supplemental insurance plans, which rejected all claims related to the 20% copay for Demonstration services for all seven beneficiaries who participated. The Eye Center did not bother to pursue these claims or copays given how small they were.

(c) Facilitators and barriers and how addressed. NHAB was concerned about Medicare requirements related to billing clients for co-payments. NHAB's usual approach is not to bill for services, and staff experienced ethical conflicts with placing clients in a program where they would be billed, when the alternative was that services would be provided for free. The solution to this conflict was to offer LV devices at no charge for Demonstration patients as compensation for the new services charge. This is in contrast to their usual approach, which is to offer services at no charge and to charge for LV devices.

Although neither NHAB nor the Eye Center participated in the Demonstration for financial reasons, the low reimbursement rates were eventually a barrier to implementation. This was especially true for the Eye Center, which received 20% of an already low rate. Eye Center staff reported that the problem was less about bottom-line revenue and more about how to focus organizational resources around a program that provides no financial incentive to do so. According to senior staff, if the rates were higher, the Eye Center would have made the program a higher priority or even considered hiring a LV specialist and providing the services on-site instead of by referral.

3. Providers and Beneficiaries

(a) Managers and professionals. NHAB provider staff worried that the Demonstration's "medical model" of care delivery might conflict with NHAB's traditional rehabilitative model of care, but in the end this fear proved unfounded. Staff were able to

accommodate Medicare's requirements for documentation of patients' needs, service use, and progress; and staff worries that Eye Center physicians would delay approval of care plans and changes in plans were not realized. Under the Demonstration, care plan changes were processed within 24 hours and this did not slow down service delivery.

Eye Center staff were unable to overcome what was described by them as reluctance to refer patients for LV rehabilitation services, even though they recognized the importance of those services in principle. One explanation was that few physicians are trained to work with patients whose vision they cannot cure with a medical intervention. Nevertheless, Eye Center respondents believed that if physicians had been given the tools and the language to work with their LV patients and if technicians were better integrated in this effort, more LV referrals might have been generated.

(b) Beneficiaries. In addition to the issues described in Section a3(b) above on page 77, respondents indicated that the cost of LV devices can be a deterrent to patents seeking services at NHAB, let alone participating in the Demonstration. By covering the costs of devices for Demonstration participants, NHAB addressed one of the barriers faced by other NHAB clients.

c. Summary

1. Characteristics of ideal LV service model for Medicare beneficiaries

Based on comments from respondents, an ideal LV service model for Medicare beneficiaries would have several characteristics that are different from the Demonstration, including:

- Increasing the rates: Although neither agency expected the Demonstration to have a financial effect, the low rates were a barrier to making the Demonstration a priority program. This was especially true for the Eye Center, which received 20% of the reimbursement, an amount that may be reasonable given their level of work but was not sufficient to motivate staff investment in the Demonstration.

- Coordinating with other payers: An ideal system would coordinate the new Demonstration benefit with other payers such that providers could collect the total allowable charge. All of the participants at this site had dual-insurance (Medicaid in each case) and yet Medicaid, as the secondary payer, would not cover the LV rehabilitation services.

2. Performance vs. ideal at this site

Both agencies identified several barriers to implementing the Demonstration. Most of the barriers reflected challenges associated with linking a medical eye care practice and a LV service agency. NHAB depended on the Eye Center – a medical eye practice that has referred patients to NHAB over the years -- to manage three core functions under the Demonstration: (1) identify and refer patients into the Demonstration, (2) sign care plans,

and (3) bill Medicare. There were no implementation problems with functions 2 and 3, but function 1 was a stumbling block. The Demonstration payment levels did not provide the Eye Center with financial incentives to increase referrals, and implementation efforts were not effective in reversing what was said to be traditional reluctance on the parts of eye care doctors to talk to patients about how LV rehabilitation services might help after medical care can no longer help. At the same time, NHAB was also conflicted about the Demonstration's requirement to charge patients for NHAB services.

Appendix C6:

Case Study of Four Independent LV Providers

a. Background on organization and its LV rehabilitation services independent of the Demonstration

1. Structural

This section presents a case study based on telephone interviews of independent LV providers: two optometrists, one ophthalmologist, and one OMS. These providers are based in four of the Demonstration areas: NC, KS, Atlanta, and NH. These individuals are included because they represent a more usual approach to providing LV rehabilitation services than the large non-profit organizations for the blind covered in the other case studies. Independent practitioners are more evenly distributed around the country and within states, and their participation would make the expanded LV team envisioned in the Demonstration more available to beneficiaries. All four of the professionals interviewed knew about the Demonstration and considered participating, but only two made efforts to try to participate.

Two of the providers interviewed were male, and two were female, and they work with both male and female colleagues. To protect confidentiality, we refer to all of them below using male pronouns, and we do not identify them by the state in which they practice. Also, we do not identify the non-profit associations for the blind participating in the Demonstration, which some of them relate to in their practice.

(a) Doctors' practice. One of the optometrists interviewed works solely in private practice in a rural area, and he offers the only LV rehabilitation services for a large portion of the state. He sees one to two LV patients a week. He is active in the LV field in his state.

The other optometrist interviewed has a private practice in which he sees five to six LV patients a week. He also has an academic practice where he sees another six to eight LV patients a week as the head of the LV service in a medical school department of ophthalmology.

The ophthalmologist interviewed works in the ophthalmology department at a medical school. The department offers a range of eye services, including a low vision clinic.

Diagnoses that predominate among these doctors' patients are macular degeneration and diabetic retinopathy, and the proportions of Medicare patients are estimated at 75% to 90%.

(b) LV specialist's practice. The orientation and mobility specialist (OMS) interviewed works independently, but he worked previously in a LV clinic. His usual practice is with

school systems and children, and his niche is multiply impaired people. He also provides in-services for nursing home and assisted living staff. He has also had contracts with the state department for intellectual disabilities. He also does some work for one of the non-profit associations for the blind participating in the Demonstration.

The three doctors interviewed collaborate with other professionals to obtain LV therapy for their patients, but none of them works with the LV specialists targeted for the expanded LV team by the Demonstration. Rather, they all work with occupational therapists (OTs).

- The LV clinic where the ophthalmologist works is staffed by three optometrists and several OTs but no other LV specialists.
- The optometrist working in the rural region reported that there are no VRTs or LVTs in the region. There are OMSs working in some of the schools, and some also deliver services for the state agency for the blind. The only rehabilitation person he works with is an OT who works for the local, rural hospital, who has some training in LV. He refers to this OT for LV rehab.
- The optometrist splitting his time between the medical school and private practices also uses OTs. In the LV clinic there is an OT from the OT department who acts as the LV therapist. The OT also has a certification in OMS. In his private practice he also refers to an OT with LV expertise.

2. Financial

Both of the optometrists work with essentially the same financial model in their private practices to obtain Medicare reimbursement for LV rehabilitation services. Their LV exams are billed through codes for LV consultations and extended service modifiers. The optometrists submit a bill for the exam and then write a referral to the OT for rehab. The OT can provide home visits if the patient lives near enough. In the rural area, the hospital where the OT works bills for the OT's time, including Medicare if the patient is a Medicare beneficiary. The OT working with the other optometrist bills for his own time.

For both of the doctors working in academic-based LV clinics, the billing for LV rehabilitation services is similar, i.e., the OTs bill for their own services, or the hospital department where they work bills for them. This model works as long as the diagnoses are covered under Medicare. The diagnosis that has been accepted by Medicare for one of the optometrists is "moderate visual impairment or worse." One optometrist reported that he has "to play games" with the billing codes to get costs covered, but it generally works.

This approach apparently has been in place for some time in the states in which the two optometrists practice, but in one state, the Carrier recently changed, and the new Carrier has taken away the consultation and extended service codes. Without the codes, the optometrist in this state has stopped providing LV exams.

Finally, the OMS is paid on an hourly basis for his contract work with school departments, long-term care facilities, state departments, and the association for the blind.

These contractors typically pay at $75 to $100 an hour and also pay for travel time and miles. He works with optometrists and ophthalmologists in his current practice, and he has learned how important it is to be efficient in asking for and giving information. He can only get information about a client from an ophthalmologist if he can give a one paragraph overview and then ask specific questions. For example, the background he prepares mentions that a client cannot distinguish beige on a beige background, and he asks a simple question: Do you have any ideas what this is due to? If it is this simple, he will get an answer. If it is two paragraphs, the physician will not read it and he understands why. Everyone is pressed for time. Ophthalmologists are focusing on ocular health - not functional assessments and treatment.

3. Providers and Beneficiaries

(a) Managers and professionals. The providers interviewed were satisfied with the model under which they have been practicing under conventional Medicare. That is, LV rehabilitation services are a small part of their practice, and they have (or had) billing codes that cover the extra time needed for the LV exam. They have established relationships with OTs who can provide and be paid for the additional LV rehabilitation services that patients need to learn to use devices and to carry out activities of daily living in the home environment.

(b) Beneficiaries. Beneficiaries who find their way to optometrists and ophthalmologists who provide LV exams, devices, and referrals to OTs are served by the existing system of providers. The services are covered by Medicare if the Medicare Carrier agrees to reimburse for the additional costs of the LV exam and for the OT. However, the doctors interviewed indicated that there are few if any other LV providers in the areas where they practice, and the evaluators' attempts to identify independent LV providers bore this out.

Distance can create access and services barriers for beneficiaries. For example, the optometrist practicing in both private and academic LV clinic settings reports that in both settings, most of his patients are not local. People who are visually impaired need help with transportation. Once they get to the clinic or his office, they are likely to need a device, and they also need therapy to help with adaptation. This has to be done when they are in the clinic or office for their one and only visit. He reports that an additional access problem is that most of the patients cannot afford a device, so he can show them the device, but many will not get it.

b. The professionals' experience in the Demonstration

1. Structural

(a) Service delivery model. Both of the optometrists interviewed were well aware of the advent of the Demonstration through communications from their professional society, Medicare, and journals. They each went to the organizations where their collaborating OTs worked and explored models for participating in the Demonstration.

The optometrist in an academic setting talked with department administrators about whether the Demonstration could be the basis for the collaboration he had been seeking under regular Medicare arrangements between the Ophthalmology and OT departments. They repeated their earlier response and said it was not worth the bother, because adding a new service and figuring out the billing for the OT out of the Ophthalmology Department would be a big nuisance for a small amount of revenue. The OT continued to bill for himself because that was "the path of least resistance."

Given this response, this optometrist decided to try billing for the OT through his private practice. He obtained all the forms and instructions and started billing for the OT with the Demonstration payment codes. As described below in reimbursement and billing discussion (Section b2(a) on page 87), he was not able to obtain reimbursement.

When the Demonstration began, the optometrist working in the rural area went to the local hospital where his collaborating OT works and gave a presentation about how they could participate in the Demonstration. The hospital people looked at the Demonstration payment codes and asked why they should take less in the Demonstration than the OT was already being paid. They not only said no to participation, the discussion caused them to look at their other LV rehabilitation services. They discovered they were losing money on a driving program that the OT provided, and they discontinued it. Without the support of the hospital for the OT's services, this optometrist did not participate in the Demonstration.

The ophthalmologist learned about the Demonstration through his department. The ZIP code in which it is located was not originally approved for the Demonstration, so the LV clinic never really considered the Demonstration. At the same time, because the department does not employ LVTS, OMSs or VRTs, they never considered it feasible to participate, even after CMS expanded the number if ZIP codes to include their area. If the rates had been higher, the ophthalmologist reported that his department would have considered hiring LV specialists and taking advantage of the new benefit. As it is, they continue to refer LV patients who they think could benefit from the services of a VRT, OMS or VRT to the state's association for the blind that is participating in the Demonstration.

The OMS interviewed heard a great deal about the Demonstration through his professional organization - The Academy for Certification of Vision Rehabilitation and Education Professionals. The Academy wanted to have OMSs covered by Medicare. The Academy said that he should approach optometrists and ophthalmologists and ask them to participate. However, when he looked at the materials describing the Demonstration provided by the Academy, he decided that they were too long to present to the doctors with whom he worked. They would simply not read something so long, so he did not go any further exploring the Demonstration with them. The Academy materials also urged him to contact the association for the blind in his area that was participating in the Demonstration. He did make contact with a LV specialist there, who was on top of the field and the Demonstration, but they did not give him a way to participate in a meaningful way. They would have needed to pay him more than they

received in reimbursement, and they would also want to use their own staff. So this path to participation was also blocked.

(b) Facilitators and barriers and how addressed. For the doctors interviewed, the Demonstration did not provide anything that facilitated participation, and it did not overcome any of the barriers. There were no new rates to cover their LV exam, and the rates for the OTs with whom they were already collaborating were lower than regular Medicare rates. The other barrier was the scarcity of the LV specialists newly covered in the Demonstration. For example, the optometrist working in the rural area reported that there are about 400 OTs in his state and perhaps 15 or 20 VRTs, OMSs, and LVTs. The existing OTs work in hospitals, not for independent optometrists and ophthalmologists, and many specialize in other areas besides LV.

The OMS was initially excited about the Demonstration, since it appeared to be a way to get his services covered under Medicare. However, there were two service model barriers. First, he saw that optometrists and ophthalmologists would decide whether the patient needed OMS services, and he decided this would not work, since in his experience these doctors have no idea of clients' functioning. In his practice, the doctors always ask him to assess mobility needs and develop a plan to meet those needs.

Second, he reported that the way the Demonstration was presented by the Academy was confusing and not very well organized. He did not approach any optometrists, because there was no good information to give them, e.g., a brief brochure that answers questions. The description was 25 pages long, with a long report on who was covered for what. In his experience, something like that is not read.

2. Financial

(a) Reimbursement and billing. The optometrist who decided to participate in his private practice submitted some bills, and the Carrier rejected them. He resubmitted the bills with documentation from CMS about the Demonstration and the Demonstration payment codes, but still the Carrier rejected them again. The Carrier in his part of the state is different from the Carrier in the part of the state where one of the associations for the blind is participating. He also reported problems figuring out who bills for what and where things should be provided under the Demonstration. With the bills rejected, it became a nuisance that was getting in the way of revenue-producing work. After the bills were rejected the second time, he stopped billing and ended up paying the OT out-of-pocket for the work he had done. He went back to having the OT bill outside the Demonstration, since rates are better and the bills get paid. Finally, the fact that the Demonstration does not cover devices gives it no advantage over the current system. To address this barrier in his private practice, he collects old devices so he can recycle them free to patients who cannot afford them.

The optometrist operating in the rural area never participated or billed. He reported that he did not see what he should bill as an optometrist, since there are no new optometrist codes. There are not any LVTs or VRTs in the region, and the OT he works with gets

paid more outside the Demonstration. He also reported that when the Demonstration came out, the OMSs in the state wondered how they could become Medicare providers. When some of them tried, their bills were rejected. This respondent was aware that vision rehabilitation providers were the driving force to get the Demonstration, but he believes they did not really understand how Medicare works.

Reimbursement rates in the Demonstration were also a problem for the OMS interviewed. The low payment rate per hour of service is far below his usual charges, and there is no coverage for mileage, travel time, or time to write the required reports. If he worked for an agency and it was absorbing the costs, it would be less of a problem for him. The low payment rates were also a barrier to setting up relationships with doctors. He knew that the Demonstration would be extra work for the doctors, and he did not see how he could ask them to do more paperwork and work for less money.

(c) Facilitators and barriers and how addressed. The Demonstration facilitated interest in expanded LV rehabilitation services under Medicare among these and other independent LV providers, but it did not provide any financial incentives to participate. The payment rates for newly covered VRTs, LVTs, and OMSs were perceived to be below the costs of providing their services, so this provided a barrier to setting up new relationships. The payment rates for OTs were better outside the Demonstration, and there were not improved payment rates for optometrists in the Demonstration. The one provider in this group who tried to bill under the Demonstration had his bills for his consulting OT rejected twice by his Medicare Carrier, which apparently was not convinced about the legitimacy of the bills by CMS information about the Demonstration.

3. Providers and Beneficiaries

(a) Providers. The providers interviewed are among the relatively small group of optometrists and ophthalmologists who provide LV rehabilitation services in their service areas, and they knew about and supported the purposes of the Demonstration. They all at least thought through the options for participating, and some took steps to try. In the end they were frustrated that the Demonstration design did not offer appropriate incentives to expand services and test new approaches.

(b) Beneficiaries. Beneficiaries were not interviewed as part of this case study, but the participating independent providers gave examples of ways that beneficiaries were affected by the Demonstration. For the most part the effects described were missed opportunities. One was the chance to attract additional independent doctors to LV rehabilitation services, which would have increased access. Another was the chance to give beneficiaries access to a LV team beyond the optometrist/OT or ophthalmologist/OT model. This was in part due to the low payment rates for OMSs, but also to the 12-hour per year per person limits on specialist services. The OMS interviewed reported that most of his clients exceed this limit. For example a woman with macular degeneration who needs to be taught to use a cane to cross a street safely and independently in an urban area would likely need 15 hours of assistance. Finally, beneficiaries were not

provided any help with uncovered costs for LV equipment and devices. The providers interviewed said that significant proportions of Medicare beneficiaries they see cannot afford prescribed devices.

(c) Facilitators and barriers and how addressed. Two of the doctors who were interviewed dealt with the barriers by continuing to provide LV rehabilitation services through regular Medicare channels outside the Demonstration, but two did not. The OMS never found a way into Medicare, and one of the optometrists who had been providing LV rehabilitation services to Medicare beneficiaries stopped doing so when the Carrier stopped paying for LV exams. Beneficiaries received no new advantages from these providers, except that two of them said they referred patients to the associations for the blind participating in the Demonstration in their area.

c. Summary

1. Characteristics of ideal LV service model for Medicare beneficiaries

The independent providers who were interviewed were generally in agreement about the characteristics of an ideal LV service model for Medicare beneficiaries. These include:

- Offer beneficiaries a full LV team, with an optometrist, OT, and the various LV specialists.
- Have a billing code for the optometrist's LV exam that includes costs for the more complicated refraction, the extra time, and the consultation. Another model suggested is to have a regular code that providers can use, for example, to bill for up to 4 to 6 visits either in the office or the home. Under this model, the OT, the optometrist, the optician, or whoever is qualified could perform the required service.
- Provide coverage for devices. One model suggested is to cover equipment and devices up to a cap, e.g., 75% up to a $150 cap.
- Pay a premium to get providers to develop and implement a care model.

2. Performance vs. ideal at this site

The Demonstration provided a vision for an expanded LV team, but in the eyes of these independent providers, it did not provide any of the incentives to develop and implement expanded team models. Doctors were not given any new billing codes for the long LV exam, and the would-be providers in the expanded team are reimbursed below the expanded team's costs, not at a premium. There is no new coverage of LV devices.

Appendix D

Analysis of payment rates for LV specialists

A number of providers interviewed for the case studies claimed that the Medicare rate for the Demonstration services did not cover the cost of these services. This appendix details how the rates were computed and also presents data from the Demonstration sites and other sources on the relative wages of OTs, Low Vision Therapists (LVTs), Orientation and Mobility Specialists (OMSs), and Vision Rehabilitation Therapists (VRTs).

Derivation of Medicare Payment Rates using Relative Value Units

Most Medicare rates for outpatient services are based on Relative Value Units (RVUs), implemented initially in the late 1980s to set payment rates for physician services[2]. One RVU is a standardized unit of physician time. There are several components to rate setting using RVUs. The first step is to determine the number of RVUs for each service, which include (a) a work time and intensity component, which includes adjustments for complexity and judgment, (b) a practice expense component, which includes office overhead and the expense of hiring staff, and (c) a small component for malpractice insurance. Once the RVU is determined, the RVU is multiplied by a factor reflecting a dollar value per unit, updated annually to adjust for local labor and salary situations using a local (metropolitan statistical area versus non-metropolitan area of state) wage index.

The determination of the RVUs for LV rehabilitation services provided by LV specialists was developed by CMS on the assumption that LVTs, VRTs, and OMSs provide services that are analogous to two services that are provided by OTs which have established RVUs (sensory integration and self care/home management). According to the CMS memo describing the rate setting process, the three components of the total RVU for these three new providers were established as follows.[3] First, the physician's work time for drawing up the LV rehabilitation care plan and reviewing the plan every 30 days over a 90-day episode of LV rehabilitation in the Demonstration was estimated at 0.1 RVU. Second, the malpractice expense was estimated as 0.01 RVU. Third, the physician practice expense RVU for OMSs and LVTs was set at .285, and the physician practice expense RVU for VRTs was set at .228. This yielded total RVUs of .395 for OMSs and LVTs (.1+.285+.01) and .338 for VRTs (.1+.228+.01).

The physician practice expense components of .285 and .228 were based on the ratios of the wages of the three LV professionals to the wages of OTs. While the physician

[2] Medicare Learning Network (2008). "Medicare Physician Fee Schedule." Payment System Fact Sheet Series. January 2008. http://www.cms.hhs.gov/MLNGenInfo.
[3] Centers for Medicare and Medicaid Services. (2005). Low Vision Demonstration G-Codes and CORFs/OPTs. Email to James F. Coan from Pamela R. West. July 13, 2005.

practice expense component of OTs was not specified in the memo, it must have been .63 to yield the total of .74 RVUs for OTs (.1+.63+.01).

These total RVUs were multiplied by the 2005 conversion factor of 37.8975 to yield the following payment rates per 15-minute units:

OT: $28.04
OMS: $14.97
LVT: $14.97
VRT: $12.81

The salary information that was used for these calculations is not reported in the CMS memorandum, but the foregoing analysis shows that the ratios can be calculated from the physician practice expense component of the calculation, which reflects the estimated expense of employing these professionals. The practice expense components used in the to calculate the components appear to be as follows:

LVTs and OMSs:	.285
VRT:	.225
OT:	.63

Using these figures, the relative wages of the other professions compared to OTs that were used for the calculation were as follows. Salaries of LVTs and OMSs were 45% of OTs (.285/.63), and salaries of VRTs were 36% of OTs (.225/.63).

Relative Wages from Other Sources

Provider case study respondents reported to researchers that the Demonstration reimbursement rates for LV specialists did not cover the cost of the LV rehabilitation specialists involved, suggesting that the rate setting method may have underestimated their salaries. In order to corroborate salary estimates, especially the levels and ratios of salaries for OTs and the other LV specialists, the evaluation gathered salary data from all five of the participating Demonstration sites and from the website of the American Medical Association, which provides 2002 data on these salaries. The Department of Labor website was searched but no data on the LV specialists was found. Using the AMA and Demonstration site data, the ratios between OTs and the other LV professionals were calculated.

Table D1 shows data obtained from the AMA website[4] and from Demonstration sites on average salary levels for the four professionals. Salaries were averaged across sites and were not substantially different by site for the individual occupations. Only two of the

[4] http://www.ama-assn.org/ama/pub/education-careers/careers-health-care/health-care-income.shtml

sites reported data on salaries for OTs. All five reported salary data on other LV specialists.

Table D1: Salary Data from AMA Website (2002) and Demonstration Sites (2008)

Title	AMA Salary	AMA Ratio to OT	Demo Site Mean Salary	Demo Site Ratio to OT	Ratio to OT from CMS Rates
OT	$58,080	1.00	$59,000	1.00	1.00
OMS	$46,564	0.80	$52,801	0.89	.45
LVT	$44,777	0.77	$45,517	0.77	.45
VRT	$37,055	0.64	$46,038	0.78	.36

The salary data from the two sources yield similar ratios of the wages of the newly covered LV specialists compared to OTs. In both cases, the CMS ratios of 0.45 of the OT salary for the OMS and LVT are 51% to 58% of the relative wages that seem to prevail in the labor market (.45/.89 and .45/.77), and the 0.36 ratio for the VRT versus the OT are 46% to 56% of the ratios of prevailing wages (.36/.78 and .36/.64). In other words, the CMS reimbursement rates for the three LV specialists appear to be about half to a little more than half as adequate as the reimbursement rates for OTs. This analysis seems to substantiate the LV providers' contention that the rates for LV specialists are set well below the costs of employing these staff.