Georgia Institute of Technology

Pass It On CENTER ... the National AT Reuse Center

AT REUSE PARTNERSHIPS WITH MEDICAID

A Guide for Consideration and Development

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ABOUT THIS GUIDE

Access to durable medical equipment (DME) improves health and safety, minimizes doctor visits and returns to hospitals, reduces or delays assisted living and nursing home placements, and enables some people and/or caregivers to keep working. Access to DME is not always available and those who cannot obtain it fail to experience the needed outcomes and quality-of-life improvements that DME can provide. Individuals who lack access may be uninsured or under-insured, or they may have coverage but experience delays in obtaining devices. For all of these individuals, the reutilization of lightly-used DME can have great value.

PURPOSE OF THIS GUIDE

The 56 federally funded state and territorial Assistive Technology Act Programs are mandated to engage in some form of assistive technology (AT) reuse. Three of these programs engage in partnerships with Medicaid, and in a recent survey, 23 states expressed an interest in developing partnerships.

This guide is for the leaders of AT Act Programs and Medicaid programs. The purpose is not to take a position for or against partnerships between AT reuse programs and Medicaid, but to provide guidance to those who choose to pursue partnerships. The recommendations in this guide are based on best practices and the lessons learned from previous and existing programs. These recommendations could easily apply to collaborative partnerships with the Veterans Administration, education systems, Vocational Rehabilitation, private health insurance, and others.

Further, these recommendations are made with caution as healthcare in the United States is undergoing rapid changes driven by many factors, including managed care and the Affordable Care Act. These drivers will impact the provision of all DME, with pressure to contain costs. The primary consideration for reuse should not be cost containment, but rather as a possible alternative to address very specific situations such as:

- To meet needs for those awaiting eligibility decisions of third parties such as Medicaid;
- To meet needs created by losses during disasters while awaiting eligibility decisions or replacement equipment;
- To provide equipment that is not covered by customer plans (e.g., shower chairs for Medicare beneficiaries or portable ramps to support independent living);
- To serve as backup or secondary equipment (e.g., users of powered chairs like to have a backup chair for use in the event of primary equipment breakdown, or it may be desirable to provide a student user of a manual wheelchair user a second chair to leave at school);
- To meet financial needs if nearly new high-end equipment with possible warranty extensions is orphaned by an unexpected death and a beneficiary agrees to use

of nearly new equipment, then the equipment is fitted by appropriate professionals; or,

- As an alternative for specialized equipment, such as Alternative Augmentative Communication technologies for individuals with amyotropic lateral sclerosis (ALS) where equipment is needed quickly and for shorter times.

Implementing a program that engages in safe, effective and appropriate reuse is a complex undertaking. The years of experience with different models and the pursuit of improved standards of practice through the Indicators of Quality for Assistive Technology Reuse (IQ-ATR) make the AT Act Programs potential partners for Medicaid. While a reuse partnership could be helpful, it is not a panacea for the financial impact represented by the durable medical equipment portion of a Medicaid budget. In fact, reuse presents some new challenges to manage. Who owns the device? Who refurbishes the devices? How is the beneficiary matched to an appropriate device? How is the new user tracked and notified of warnings or recalls? Who repairs the device for the new user? Careful attention to the cycle of donation-refurbishment-reassignment should be a key planning factor.

DEFINITION OF KEY TERMS

Definitions of key terms will facilitate understanding this guide.

The AT Act[1] defines ***assistive technology*** as "any item, piece of equipment, or product system whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities."

Durable medical equipment is a subset of assistive technology. Durable medical equipment is the primary focus of reuse partnerships with Medicaid. DME is defined in Federal regulations at 42 CFR § 414.202 as equipment furnished by a supplier or a home health agency that meets the following conditions:

(1) Can withstand repeated use.
(2) Effective with respect to items classified as DME after January 1, 2012, has an expected life of at least 3 years.[2]
(3) Is primarily and customarily used to serve a medical purpose.
(4) Generally is not useful to an individual in the absence of an illness or injury.
(5) Is appropriate for use in the home.

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[1] Assistive Technology for Individuals with Disabilities Act of 2004 – (29 U.S.C. 2001 et seq.)

[2] It is important to note that DME must have an expected useful life of three years, but Medicare will only pay to replace an item in no less than five years. This creates a potential gap of two years during which a person would need alternative funding if an item of DME cannot be reasonably repaired.

Complex rehabilitation technology is a category of devices that are fitted, programmed, adjusted or adapted for the needs of a specific individual.

Reuse takes many forms, and the Pass It On Center has encouraged the use of six definitions:

> ***Open-ended device loan***: providing a device for as long as needed
>
> ***Device exchange***: matching donors and users without intervention by a third party. This often takes the form of searchable databases on the Internet.
>
> ***Reassignment/Redistribution***: accepting equipment donations for sanitization, identifying appropriate users, and providing a device to a new consumer when the equipment matches their needs
>
> ***Refurbishing:*** Similar to reassignment, but in addition the AT is restored as nearly as possible to its original configuration, which may include repairing and replacing parts.
>
> ***Remanufacturing:*** Similar to refurbishing, but it involves modifying a device to a configuration other than the original manufacturer specification. (This is NOT recommended for AT reuse centers because of potential liability.)
>
> ***Recycling:*** not in the sense of a generic synonym for reuse, but specifically to describe end-of-life breakdown for disposal and/or reuse of parts

WHAT'S IN THE GUIDE

The guide contains sections with basic information about Medicaid for those in AT Act Programs and a general history of AT reuse for Medicaid leaders. It profiles existing models for DME reuse in Medicaid, identifies some of the key Indicators of Quality for AT Reuse, and describes the process for implementing an AT reuse partnership with Medicaid.

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A. INTRODUCTION

Kansas has operated a durable medical equipment (DME) reuse partnership between the AT Act Program and Medicaid successfully for more than a decade. The Kansas Equipment Exchange (KEE) conducts a statewide equipment recovery campaign and accepts donations of lightly used DME obtained through private and public funding sources. In fiscal year 2014, the Kansas reuse program reassigned $839,201 of durable medical equipment that was *not purchased* by Kansas Medicaid. The reuse program returned $3.03 in value for every dollar invested in the program. Since 2003, the KEE program has received more than $10 million of durable medical equipment from private donors, and has refurbished and reassigned more than $8 million of used equipment. More than $1 million of equipment purchased by Medicaid has been recovered by the program, refurbished and reassigned to Kansans. While the term "lightly used" does not have a standard definition, generally it refers to equipment that is new, demonstration, or that is refurbished with an end product that closely meets the original specifications of the manufacturer.

The most recent census data indicates that total national expenditures on durable medical equipment exceeded $4.3 billion. Medicaid was the second largest source of insurance funding (following Medicare) for durable medical equipment, purchasing 12.4 percent of all DME – an amount greater than all private insurance programs.[3]

BENEFITS OF DME REUSE

Reuse serves the uninsured and the under-insured. It can provide an interim solution for people with coverage who experience delays, or a secondary device to minimize the burden of transporting bulky devices to school or workplace. Safe, appropriate and effective reuse matches the beneficiary to the *needed* device, not "*a* device". Customer satisfaction surveys of reuse programs confirm that people in need of a device who lack financial means for timely access are "highly satisfied" to have a lightly used, refurbished device. In 2014, device reuse received the highest satisfaction rating of all services from customers of the 56 AT Act Programs in all states and territories when 99.6 percent that they were "highly satisfied" or "satisfied" with the reused device.[4]

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[3] U.S. Centers for Medicare and Medicaid Services, Office of the Actuary, "National Health Statistics Group," Centers for Medicare and Medicaid Services data. U.S. Census Bureau, Statistical Abstract of the United States: 2012. Retrieved 8/11/2015.

[4] Center for Assistive Technology Act Data Assistance (CATADA). (2015). AT Act Data Brief, Issue No. 7 (2015). Retrieved 08/11/2015 from http://www.catada.info.

Overall, reuse provides a general benefit by reducing the consumption of natural resources (raw materials and fuel) and minimizes environmental impact by keeping usable devices out of landfills.

The financial benefits of DME reuse are measurable using return-on-investment (ROI) analysis. Traditionally, programs have used only the value of donated equipment and the cost of program operations in the computation. Some research has explored the inclusion of the value of preventing additional use of healthcare services into the ROI analysis.

SAFEGUARDS FOR BENEFICIARIES

There are many safeguards that reuse programs can incorporate to protect beneficiaries of reused DME. Some of the most important recommended safeguards include:

- Using best practices to determine whether an item is appropriate for reuse
- Sanitizing a device according to guidelines from the manufacturers and the Centers for Disease Control and Prevention (CDC) that are consistent with recommendations for sanitization of such equipment in healthcare facilities
- Performing repairs by certified technicians trained by industry suppliers
- Tracking the reassigned device to notify new users of warnings, alerts or recalls of devices
- Matching customers to the appropriate device. This sometimes requires the assistance of skilled healthcare professionals.
- Providing training to beneficiaries and caregivers in the use and care of the device and with access to user manuals
- Assuring that reuse is not used to circumvent other avenues for securing a new device

Reuse programs need clear and concise policies and procedures for assessing whether a particular item is appropriate for continued use. It is important to determine the safety and cost effectiveness of reuse of a particular device. Factors for consideration include the age of the device, the type of use, the environment of use and possible impact of the method by which the device has been transported. The type of repair or refurbishing required to sanitize the device or to restore it to original manufacturer specifications could render reuse financially impractical.

One category of devices that poses a challenge for reuse is complex rehabilitation technology (CRT). In this category are wheelchairs that are fitted, programmed, adjusted or adapted for the needs of a specific individual. Identifying another individual who requires identical customization is very different from reassigning standard devices without modification. Reusing these devices without a professional evaluation of the precise needs of another individual is unsafe. If a program chooses to reutilize complex rehabilitation technology, policies and procedures should be in place to use appropriate allied health professionals to assure that the equipment meets the needs of the

individual as identified by appropriate medical professionals and to assure that the individual has choice in the acceptance of reused equipment.

The Pass It On Center has published Indicators of Quality for Assistive Technology Reutilization (IQ-ATR) that provide a more comprehensive exploration of a range of best practices that, if followed consistently by reuse programs, can provide safeguards to beneficiaries, reuse programs and third-party providers.

FACTORS IN ACCEPTANCE OF DME REUSE

Acceptance begins with the involvement of consumers, suppliers, healthcare professionals, agencies and organizations that serve people with disabilities, and other prospective partners in the design and development of the reuse program. It is reinforced by a commitment to high standards that result in safe, effective and appropriate reutilization. Acceptance may be diminished if a reused device is the first and only option. Choice is an important component in gaining consumer acceptance.

B. AN OVERVIEW OF ASSISTIVE TECHNOLOGY REUSE

Reuse of assistive technology is hardly a new idea. For example, the Convalescent Aid Society of Pasadena, Calif., has engaged in the free loan of home medical equipment since 1923.

A BRIEF HISTORY OF PUBLICLY-SUPPORTED AT REUSE PROGRAMS

All 50 states and six territories have assistive technology programs supported under the AT Act of 1998 as amended, 29 USC §3002.[5] AT may be as simple as a magnifying glass or as complex as a speech-generating communication device. AT includes *durable medical equipment* (DME) such as wheelchairs and other mobility aids. The AT Act Programs serve all ages and all disabilities.

By definition, AT also includes services in which DME suppliers are not involved. Those services are often provided by physical therapists, occupational therapists, speech-language pathologists, special educators, rehabilitation engineers and other appropriately licensed, certified and otherwise qualified individuals. These services include evaluation, fabrication, customization, maintenance, arranging for funding, and training device users and the people who support them in the use of the device. Among the many categories of assistive technology, this guide focuses on the reuse of durable medical equipment.

Reuse is only one of the activities of the state AT Act Programs. The programs provide device demonstrations, device loans to try equipment for appropriate use, training on use and maintenance of assistive devices, and assistance to customers in locating financing for needed devices.

In the 1990s, some state AT Act Programs included reuse among their activities as a means of expanding access to AT, and some of those programs grew to significant size and impact in their communities. The first national conferences to explore the “hidden resource” of AT reutilization took place in 1999 and 2000. From that point, the call to expand reuse gained support. A “perfect storm” of factors converged for promoting the expansion of reuse: the reauthorization of the AT Act in 2004 with reuse as a *required* activity, the New Freedom Initiative to allow people to live as independently as possible, and the aftermath of Hurricane Katrina with issues surrounding the evacuation of people with disabilities and users of AT. John Hager, Assistant Secretary of Education and himself a user of AT, championed the cause of AT reutilization.[6]

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[5] Center for Assistive Technology Act Data Assistance (CATADA). (2012). Device Reutilization Programs Activity Summary Report (2012). Retrieved 01/07/2014 from http://www.catada.info.

[6] For more information on the history of AT reutilization, see article by Kniskern and Phillips, Technology Reutilization: What We Know Today, *Assistive Technology Outcomes and Benefits*, Fall 2008.

In 2006, the Office of Special Education and Rehabilitative Services (OSERS) of the U.S. Dept. of Education promoted the cause of AT reutilization through 13 grants. Twelve grants were given to reuse programs in twelve states for the development of "demonstration" projects to benefit the reuse community and serve as models. The other grant created a national technical assistance center to serve the demonstration grantees and all other reuse programs. The Pass It On Center, administered by Tools for Life, Georgia's AT Act Program, has served the reuse community since that time. Also that year, a National Conference on AT Reutilization was hosted in Atlanta.

STATE AT ACT PROGRAMS PARTNER TO EXPAND CAPACITY

With limited federal funding, most AT Act Programs promote reuse through partnerships with nonprofit organizations whose customers benefit from reuse. Partners include local chapters of nationally-known organizations such as Easter Seals and United Cerebral Palsy, Centers for Independent Living, foundations dedicated to assisting people with disabilities, rehabilitation centers, government agencies, faith-based ministries and civic organizations. Reuse programs and their partners sometimes share facilities, staff or other resources to minimize costs. For example, Alabama's STAR program has sites in seven cities and a different partner in each. Those partners include Easter Seals, United Cerebral Palsy, Goodwill Industries, a rehabilitation center and an association of Baptist churches. The reuse programs are able to operate with minimal funding from the state AT Act Program and shared resources from the local partner.

The Pass It On Center (PIOC) supports a voluntary database of Reuse Locations on its website to identify reuse programs beyond the State AT Act Programs. The online database permits the creation of a profile specifying name, location, types of reuse activities and contact information for a reuse program. Users may locate programs by clicking on a map of U.S. states and territories or narrow the search by selecting type of reuse activity. At the time of this report, the database included 223 program profiles.

Some programs have unusual partners. For example, in Wisconsin a reutilization program partners with a state prison for the refurbishing of wheelchairs. Selected inmates are trained to manufacturer certification level to repair and refurbish lightly-used wheelchairs. When ready, the wheelchairs are returned to the reuse program for distribution.

In addition to leaders from reuse programs, industry representatives Rita Stanley, Vice President, Government Relations of Sunrise Medical and Caroline Van Howe, Chief Operating Officer, the Assistive Technology Industry Association (ATIA), are members of the National Task Force on AT Reuse. The Pass It On Center encourages individual programs to work with local suppliers of AT. Manufacturer programs are the source of training for most technicians who perform repair and refurbishing activities. Some programs have found suppliers to be sources of donations in the form of discontinued, but usable, devices.

SCOPE OF REUSE

The definitions noted earlier are essential to reporting reutilization activities for the Center for Assistive Technology Act Data Assistance (CATADA), the approved data collection system for statewide AT programs. (The data is available at http://catada.info.) Voluntary data collection began in 2006 with formal reporting implemented in February 2007. The 2008 report (Oct. 2007 - Sept. 2008) is the first year of complete reporting.

In the 2014 fiscal year, 43,713 consumers received a total of 57,745 reutilized devices from all 56 AT programs with an overall savings of $25.2 million. The majority of AT devices provided through reuse programs (85% of all devices) supported mobility, seating and daily living. Most of the activity (72%) was in the area of recycling, refurbishing and repair services, compared to device exchange (6%) and open-ended loans (21%).[7]

CATADA data reflects only the reutilization activities of the 56 state and territorial AT Act Programs and their reuse partners. It does not include data from all 223 programs profiled in the Locations Database.

The valuation of devices for reporting was an issue for many reuse programs, and because no standard exists for calculating the depreciated value of used assistive technology (i.e., nothing comparable to an automobile “blue book,”) many programs use a percentage (usually 70 or 75%) of the manufacturer’s suggested retail price (MSRP) to represent the cost of purchasing a new device, and therefore the savings to the consumer. One flaw in this choice of valuation is that most devices are not purchased by individuals at MSRP, but by third-party payers (private insurance companies, Medicare, Medicaid, the Veteran’s Administration and other government programs) that pay far less than 70-75 percent of the MSRP for the new device.

[7] Center for Assistive Technology Act Data Assistance (CATADA). (2015). AT Act Data Brief, Issue No. 7 (2015). Retrieved 08/11/2015 from http://www.catada.info.

2014 Reuse through AT Act Programs (Source: CATADA)

Type of Assistive Technology	Average Savings Per Device	Percent Devices	Number Devices	Total Savings to Consumers
Mobility and seating	$585.06	51	29,210	$17,089,511
Daily living	171.84	34	19,481	3,347,600
Computers and related	231.45	5	2,711	627,471
Environmental adaptations	470.18	2	1,337	628,626
Vision	444.58	2	1,270	564,614
Recreation, sports and leisure	124.91	2	1,122	140,150
Learning/cognition	241.23	2	959	231,339
Hearing	273.26	1	834	227,901
Speech communication	1,735.94	1	705	1,223,836
Vehicle modification and transportation	73,810.06	<1	16	1,180,961
Total	**$ 395.31**	**100%**	**57,745**	**$25,262,009**

TECHNICAL ASSISTANCE TO EXPAND AT REUSE

In 2006, the U.S. Department of Education's Office of Special Education and Rehabilitative Services awarded twelve AT demonstration grants to programs in different states and a grant for the creation of a national technical assistance center for AT reuse. That began the process of expanding AT reuse and making it safer and more professional. Prior to 2004, independent living centers, nonprofit organizations serving people with disabilities, faith-based organizations and other groups engaged in AT reuse through informal "loan closets" of durable medical equipment or programs for "recycling" computers.

The intent in providing financial support for the expansion of AT reuse through the demonstration grants and a technical assistance center was *not* to create a new regulated reuse bureaucracy or to undermine consumers' options for getting new AT from existing suppliers, but to serve those who could not otherwise acquire AT devices.

The expansion of reuse through Medicaid raises a serious concern about the possibility of the elimination of consumer choice.

The objective of Pass It On Center activities is to expand safe, appropriate and effective reuse of AT devices of all types. It provides technical assistance for the reuse activities of the 56 state and territorial AT Act Programs and for numerous nonprofit organizations that engage in some form of AT reutilization.

In its first six years, the Pass It On Center built a significant infrastructure of resources to promote AT reuse, a practice with the potential to have major social and economic impact. It addressed issues of national significance, provided education and technical assistance to new and existing reuse programs, created tools for programs and customers, developed measures of outcomes, and provided education about strategies for sustainability. This was achieved with cooperation and support from AT reuse programs throughout the states and territories.

QUALITY ASSURANCE AND LIABILITY CONCERNS IN REUSE PROGRAMS

One key concern in developing partnerships is the potential liability from the assignment of inappropriate, unsafe or unsanitary equipment. PIOC focuses on the sharing of best practices for AT reuse. The initial focus was the development of a website with a Knowledge Base that focused on key issues for operating a reuse program: sanitizing devices, matching devices to customers, developing sustainable programs. Working with a national team, it developed Indicators of Quality for AT Reuse (IQ-ATR) and created an Online Program Assessment Tool to promote the use of the IQ-ATR to measure progress. [8]

PIOC has presented over 50 webinars without charge for reuse professionals throughout the country. These are qualified for CRC and CEU credits and archived on the website for retrieval and use on demand.[9] PIOC became an Alliance Partner of the Assistive Technology Industry Association, presenting a strand of sessions on reuse topics at each annual national conference to expand knowledge about reuse.

[8] Pass It on Center for Assistive Technology Reutilization. (2013). Indicators of Assistive Technology Reutilization (IQ-ATR). Retrieved 01/07/2014 from http://www.passitoncenter.org/IQATReuse/.

[9] Pass It on Center for Assistive Technology Reutilization. (2013). Webinars. Retrieved on 01/07/2014 from http://passitoncenter.org/Webinars.aspx.

C. MEDICAID: WHAT IT IS, HOW IT WORKS

Medicaid is a public insurance program operated by states within broad federal guidelines. The broad flexibility results in differences in eligibility and benefits from state to state. Both Medicaid and Medicare are public health insurance programs created by the Social Security Amendments of 1965 (P.L. 89-97). Medicare was designed as a hospital insurance program to cover most of the elderly (over age 65). Medicaid is a means-tested program with a combination of financial and categorical eligibility requirements. Some senior citizens are eligible for both Medicare and Medicaid.

Nationally, Medicaid pays for the delivery of 40 percent of all new babies, and provides healthcare for half of America's 62 million low-income children, 11 million non-elderly, low-income adults, 8.8 million non-elderly individuals with disabilities, and 4.6 million low-income seniors who are also enrolled in Medicare.[10]

Physicians, hospitals and other healthcare providers are not required to participate in Medicaid, and many choose not to do so. States determine the reimbursement rate for services and the recent recession has resulted in curtailed and delayed reimbursements.

HOW MEDICAID IS FUNDED

Medicaid, as originally implemented, was a program in which states received guaranteed federal financial support for part of their Medicaid program costs. The general federal contribution was based on a comparison of the state's per capita income with the national average, a formula called the Federal Medical Assistance Percentages or FMAP. No state received less than 50 percent match under this formula, but it resulted in significant funding differences based on income. A wealthy state might receive only a 50 percent match, while a poor state might get as much as 75 percent. The federal share averaged 57 percent of costs between 2001 and 2011.

A different formula is used to compute contributions for the children's program. The Children's Health Insurance Program (CHIP) was added in 1997 to encourage states to insure more children, and it uses a more generous formula. That formula starts with the FMAP numbers, and then lowers the state's share of spending by 30 percent. The result

[10] Medicaid Moving Forward, Issue 1. Retrieved from htt://Medicaid.gov/State-Resource-Center/Events and Announcements/Downoads/MMF_Jan-Dec-2012_FINAL.PDF, Aug. 12, 2015.

is a higher federal share that ranges from 65 percent to 84 percent, depending on the state. The national average is about 70 percent.[11]

With federal encouragement and incentives, states have implemented different delivery system models including managed care (with primary care case management systems, managed care organizations, prepaid health plans, and long-term services and supports), patient-centered medical homes, health homes, and accountable care organizations. This array of delivery models is combined with a mixture of payment models ranging from the traditional fee-for-service to pay-for-performance, episode of care, global bundling and others.[12]

ELIGIBILITY

The Patient Protection and Affordable Care Act (commonly called the Affordable Care Act or ACA) was signed into law in March 2010. It uses insurance exchanges and Medicaid to provide healthcare to millions of uninsured Americans. Prior to its passage, 17.87 percent of the U.S. population was estimated to be uninsured. A 2012 study by the Commonwealth Fund found that one in four working-age Americans went without insurance at some point in 2011, often as a result of unemployment and other job changes. [13]

Estimates were that about 17 million more people will become eligible for Medicaid because it will cover people with slightly higher income limits. To facilitate the transition to this expanded coverage, the federal government started by paying all of the costs for those newly-eligible in 2014, but the percentage gradually will decrease to 90 percent over a five-year period and remain at that level. In states that already have expanded their Medicaid programs with state money, the federal share was to be slightly lower than 90 percent in 2014 and move up to 90 percent by 2019. The Medicaid expansion is projected to cost the federal government $627 billion from 2012 through 2021, according to the Congressional Budget Office. The Affordable Care Act did not change the existing FMAP or CHIP formulas, leaving states with three different means by which their federal funding for Medicaid is calculated.

The implementation of ACA has seen the rate of uninsured individuals decline and the number of Medicaid beneficiaries rise, especially in those states that chose to expand

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[11] Cournoyer, Caroline. Medicaid Explained: How a Blended Rate Would Work. Governing the States and Localities. Retrieved February 18, 2013, from http://www.governing.com/blogs/politics/Medicaid-Explained-How-a-Blended-Rate-Would-Works.html

[12] The Kaiser Commission on Medicaid and the Uninsured (2015*). Medicaid Delivery System and Payment Reform: A Guide to Key Terms and Concepts*, The Henry J. Kaiser Family Foundation. Retrieved 8/13/2015 from

[13] Collins, S. R., Robertson, R., Garber, T. & Doty, M.M. (2013) *Insuring the Future: Current Trends in Healthcare Coverage and the Effects of Implementing the Affordable Care Act*. Retrieved from http://www.Commonweathfund.org/Publications/Fund-Reports/2013/Insuring-the-Future.asp

Medicaid. The post-implementation projection is that 14.22 percent of the population will remain uninsured.[14] As of the end of the 2015 Affordable Care Act open enrollment period, 11.7 million people had signed up for coverage in a Health Insurance Marketplace. The rate varied widely across states when looked at as a share of the "potential market", ranging from a high of 70% in Vermont and 64% in Florida to lows of less than 25% in Iowa, South Dakota, Minnesota, North Dakota, Hawaii, and Alaska.[15]

Any person who meets the eligibility requirements (always income-based in relation to the federal poverty line combined with other qualifying factors) has the right to receive Medicaid coverage (that is, to become a "beneficiary"). To receive federal funding, states must cover five mandatory populations:

(1) Children under age six,

(2) Children aged 6-18,

(3) Pregnant women,

(4) Parents whose income is within the state's eligibility limit for cash assistance that was in place prior to welfare reform; and

(5) Most seniors and persons with disabilities who receive cash assistance through the SSI program.

Every state covers at least one optional population. Those include:

a) Pregnant women, children and parents,
b) Seniors above 65 and people with disabilities,
c) Other "medically needy" individuals whose medical expenses reduce their disposable income to below the eligibility limit.[16]

Over the years since its creation, Medicaid coverage has been extended beyond the original target of low-income citizens under the age of 65. In the 1970s Medicaid began to cover care for people in intermediate care facilities, and it established the Supplemental Security Income (SSI) Program of Assistance for the Elderly and Disabled. In 1981, patients under Medicaid were given more flexibility and choice in selecting health care providers through waivers for home and community-based care.

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[14] Kiernan, John S. *Rates of Uninsured by State Before and After Obamacare*. Retrieved 8/18/2015 from http://wallethub.com/edu/rates-of-uninsured-by-state-before-after-obamacare/4800/.

[15] Mapping Marketplace Enrollment (2015). Kaiser Family Foundation. Retrieved 8/19/2015 from http://kff.org/interactive/mapping-marketplace-enrollment/.

[16] *Medicaid and CHIP Information*. Retrieved February 18, 2013, from www.medicaid.gov/Medicaid-CHIPProgramInformation/ByPopulation.html.

Also that year, states were required to pay hospitals that provided care to low-income patients. This was to encourage hospitals to serve everyone equally and stop the practice of diverting low-income patients to a limited number of public hospitals. In 1985, pregnant women were given coverage if they wanted it. Illegal immigrants were covered for certain emergency situations starting in 1986. In 1989, states were given the option to add dental coverage. Coverage was expanded again in 1991 to permit states to manage the cost of prescription drugs. Then, in 2000, coverage was extended to women with breast or cervical cancer, regardless of income.

Not all of the expansions are mandatory, so significant differences remain among the state programs. A state may elect to cover "optional" populations and receive additional funding. As noted earlier, states may cover different populations beyond those mandated for federal matching funds. They may choose to provide a different scope of services for the populations that they choose to cover. Each state has different rules for eligibility and services for its Medicaid beneficiaries.

NOTE: Refer to www.Medicaid.gov or the state Medicaid program website for more information about the eligibility rules and coverage for a specific state.

CURRENT ECONOMIC STRESSES

Because Medicaid is an open-ended entitlement program, everyone who meets the state eligibility rules is entitled to receive services. When unemployment increases and the economy worsens, the number of eligible persons increases and imposes additional financial strain on state and federal budgets. It should be noted that the healthcare expenditures by Medicaid programs do contribute to local and state economies, and most programs calculate and report the economic impact of those tax dollars. Even so, the issue now is the ability to pay for the projected increase of eight percent per year in the cost of Medicaid in an era of declining tax revenues.

MANAGED CARE AND ITS POTENTIAL IMPACT ON DME AVAILABILITY

Many states are shifting from fee-for-service to managed care models for their Medicaid programs. Managed care models account for 70 percent of Americans enrolled in Medicaid. In a managed care delivery system, the state contracts with organizations to provide services and this often becomes the only method of accessing devices and related services. In recent years, state agencies have sought waivers to move previously exempt groups, such as people with disabilities and the elderly, to mandatory managed care programs. From the state perspective, this model ensures quality and increases efficiency while expanding home- and community-based services. Studies of the outcomes show significant differences among managed care organizations. For states that have included persons with disabilities in the Medicaid Managed Care coverage, training to providers regarding identification/barcoding of new Medicaid purchased equipment through the managed care contract, working with Managed Care case coordinators to balance the new versus lightly used equipment decisions, and ongoing

communication become extremely important to the ongoing success of the equipment reutilization program.

The reimbursement rates for DME purchased by Medicare, Medicaid programs and managed care organizations have been reduced significantly. This poses a significant threat to the availability of DME, both new and lightly-used equipment available for reuse. According to Rita Stanley of Sunrise Medical, some defined reimbursement levels for specific items of DME are now below manufacturing cost. If not corrected, this will lead to the discontinuation of production of those items.[17]

Another concern in the DME reuse community is the implementation of Medicare's competitive bidding for DME suppliers. This affects individuals with dual eligibility for Medicare and Medicaid, and critics expect the limiting of the number of suppliers to have a negative impact on service, thereby resulting in a reduction in access, especially in rural communities. Should it result in a reduced amount of new equipment being purchased, it would have a limiting impact on the number of devices available for reuse.

[17] Pass It On Center audioconference, 8/11/2015.

D. OVERVIEW OF MEDICAID EXPERIENCE WITH REUSE

The Kansas Equipment Exchange (KEE) Reuse Program began as a partnership with Medicaid in 2003, and is cited often as a model alliance. Assistive Technology for Kansans (ATK), the state Assistive Technology Act Program, operates five regional Assistive Technology Access Sites that serve as the hub and provide the infrastructure for many Kansas health and disability programs. The five ATK sites, an affiliate site in Garden City, and a network of more than 36 program partners comprise the statewide system. A staff of 26 Assistive Technology professionals serves as the donation and distribution centers for the equipment reuse program. The Medicaid program supports inventory tracking of all devices donated into the program. It also pays DME suppliers through the KEE Program to refurbish devices for Medicaid beneficiaries. The KEE Reuse Program has been recognized as a best practice program by the Centers for Medicare and Medicaid Services (2007)[18] and has received state and national recognition. The KEE Reuse model, with some variation, has been adopted by Oklahoma. In addition to the statewide reuse programs modeled in Kansas, other initiatives support reuse while stopping short of a refurbishing partnership. Some Medicaid programs support stickers (placed on devices purchased with Medicaid funds) that either support the retrieval of the device, or encourage the donation of the device into a reuse program when it is no longer needed (e.g., Virginia pilot program.) Others pay for certified repair technicians in reuse programs to perform repairs to Medicaid-purchased equipment (e.g., at Paraquad in St. Louis).

The need to control expenditures has led to the exploration of many cost-containment strategies for publicly funded healthcare in recent years, including managed care. A significant portion of the total amount spent on durable medical equipment is paid by Medicaid programs. Governors are looking for opportunities to reduce state budgets and healthcare is among the biggest expenses. A significant percentage of Medicaid beneficiaries are people who need assistive technology. Some states have chosen to make optimal use of resources by recovering and reutilizing functional durable medical equipment purchased with tax dollars and no longer needed by the original recipients, whether Medicaid beneficiaries or children in the Birth to Three Early Intervention Program. As the experience of successful assistive technology reuse programs has shown, they have an opportunity to benefit from the expanded world of donated devices purchased by individuals and private payers. Customers benefit from DME reuse through access to properly sanitized and refurbished equipment that meets the needs identified by their physicians. By accepting reused devices as part of the solution, they extend the Medicaid budget.

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[18] *KHPA Medicaid Transformation 2008*, a report of the Kansas Health Policy Authority (January 2009), Chap. 4, p. 33. Retrieved March 7, 2013, from http://www.khpa.ks.gov/medicaid_transformation/download/2008/KHPA_2008_Medicaid_Transformation.pdf

While expanded reuse of DME is an opportunity to address a major national financial need while contributing to the environment, it has practical limitations. Profit margins in the durable medical equipment industry already are so low that many services have been eliminated. Substantial drops in volume would result in insufficient revenue to sustain operations, especially for small suppliers. Again, this involves a healthcare model that limits the number of suppliers. That is why is it worthwhile to examine and discuss models of successful partnerships between Medicaid programs and AT Act Reuse Programs.

A few states have engaged in successful equipment reuse within Medicaid programs for many years, with Kansas and Oklahoma having the broadest coverage and highest volumes of reuse. This is entirely separate from the purchase of new DME devices by Medicaid for program beneficiaries. Reuse programs may be used to fill the needs of *some* beneficiaries, but this is dependent on two key factors. First, the beneficiary must be willing to accept a lightly-used device. Second, an appropriate device (one that meets the specific needs of the person) must be available in inventory. The models for device *reuse* within Medicaid vary by state.

DRIVERS FOR REUSE

Some assistive technology devices are lightly used, sometimes because the need is brief and the person recovers, or sometimes because the user dies. Other devices are acquired for people with long-term or permanent disabilities and the device may no longer have useful life when the original owner requires another device or dies. Reuse affords the opportunity to recover that lightly-used DME for reutilization by people in need who lack the resources to acquire new devices, for use as an interim solution while waiting for new DME, or as a second device for school or the workplace to free the user or caregiver from undue burden in transporting a device. The financial implications for government-funded healthcare programs are significant. Medicaid is the third-party partner with the most activity occurring followed by the Veteran's Administration and Vocational Rehabilitation.

DIFFERENT MODELS FOR REUSE

Reuse of durable medical equipment within Medicaid has taken several forms. Kansas has one of the oldest continuous programs, which was started in 2003. The Kansas Equipment Exchange, a partnership between Medicaid and Assistive Technology for Kansans, reclaims and refurbishes Medicaid-purchased equipment and other donated devices and distributes those devices free of charge to eligible citizens. The Oklahoma Durable Medical Equipment Reuse Program, which was funded in late 2011, follows a similar model.

In 2009, Vermont launched a program to retrieve eight categories of DME when no longer needed by Medicaid beneficiaries. All DME suppliers placed stickers on new devices requesting return to Medicaid when no longer needed, and each beneficiary was

asked to sign a document acknowledging that Vermont Medicaid retained ownership and that it would be returned when no longer needed.

In Virginia, Medicaid is represented on the AT Act Program Advisory Council, and thereby familiar with the networked reuse efforts in the state. In 2011, the Commissioner of Vocational Rehabilitation asked Medicaid to participate in a pilot program to recover equipment. DME vendors in the Roanoke area placed stickers on Medicaid-purchased devices asking that they be returned to the Virginia Reuse Network. More research is needed to determine whether placing stickers on devices is consistently useful for state programs. Data from Kansas showed that most devices donated to the KEE program, and particularly the devices that were in the best condition and of most value for reassignment came from non-Medicaid sources. This was also the experience in Oklahoma.

Paraquad, one of the nation's oldest Centers for Independent Living, operates a large AT reuse program in St. Louis. It partners with Medicaid to provide repair services to beneficiaries using certified technicians who refurbish donated AT.

Medicaid has partnered with other programs in limited ways, e.g., donating Medicaid-purchased equipment to the Delaware AT Initiative partnership with Goodwill Industries.

KANSAS EQUIPMENT EXCHANGE, 2003

Kansas was an early innovator when it included AT reuse in its Medicaid program through the Kansas Equipment Exchange (KEE). The collaboration of Kansas Medicaid with Assistive Technology for Kansans (ATK, the state AT Act Program), specified in a contractual agreement, has resulted in an exemplary statewide model that includes durable medical equipment suppliers, a network of 36 partner organizations providing services to consumers, and the consumers themselves.

Origin. This partnership arose from several factors. Kansas legislators expressed concern when seeing durable medical equipment in yard sales at a time when the economy was tightening and the Medicaid program proposed an $11 million DME budget. The ongoing relationship between the Medicaid program and ATK resulted in discussions of a formal partnership and an application for a grant from the National Institute on Disability and Rehabilitation Research (NIDRR) which recently became the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDLRR). The proposed Kansas Equipment Exchange received a grant of $449,478 to develop a statewide, cost-neutral DME reutilization program from October 2001 through September 2004.

As with most states, creating a reuse program required a change in state policy regarding equipment ownership. (In some states this may require a change in law or regulation to permit used devices within the Medicaid program.)

Design. The design of the program included consumers, commercial DME suppliers, the ATK staff and Advisory Council and staff from the Health Care Policy Authority (Medicaid). The partners and collaborators identified a set of quality indicators on which the program would be built. Those indicators included:

Commitment to quality equipment. All donated and reclaimed equipment would be sanitized, repaired and refurbished as needed. The repair and refurbishing would be performed by qualified vendors who backed their work and would be paid for their services.

Equal access. All consumers, regardless of geography, income, disability, health conditions or type of DME needed would have equal access to equipment. This was to be accomplished through regional distribution centers. Recognizing that DME is essential to quality of life and influences consumers' perceptions regarding safety, home and family relationships and community involvement, KEE determined to provide timely access but not an urgent care program. The original goal was to turnaround inventory within 90 days. To reduce transportation barriers that limit consumer access, the program employed multiple strategies: (1) Staff and volunteers from disability and nondisability organizations were used to pick up and deliver equipment. (2) DME suppliers were paid to deliver equipment when the situation warranted. (3) Couriers were sometimes hired to pick up or delivery equipment.

Sustainability. The program was designed to be sustainable over time after the NIDRR grant ended. To accomplish this, the program had to prove that it was cost-effective, or at least cost-neutral, for agencies to continue to participate. The equipment had to be of sufficient value to warrant refurbishment and tracking. A broad category of DME was identified for acceptance, but the focus was placed on high value, lightly used devices.

Public acceptance. Emphasis was placed on strategies to avoid the high national rate of AT/DME abandonment. Consumers were linked to local DME suppliers for maintenance, repair or reassessment. They were linked to the Tech Act Program, ATK, for additional demonstration and training in the proper use of devices. It was found that the public readily viewed reuse of DME as a solution. This was furthered by the involvement of nondisability partners in volunteer regional networks.

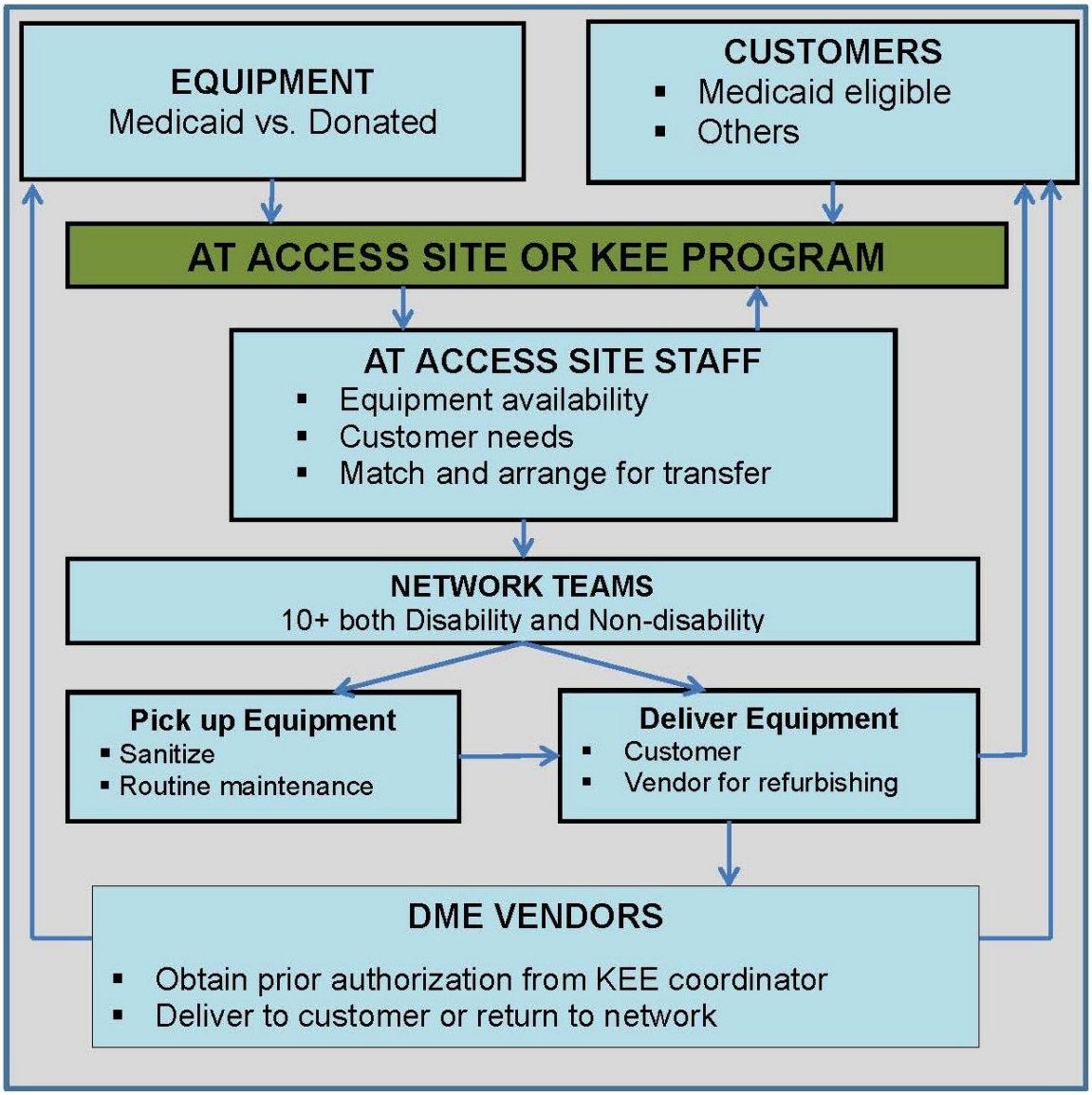
Funding. After the initial grant, KEE was funded through the Medicaid program, the Department of Administration and the University of Kansas, the lead agency for the Tech Act Program. The 2014 budget of $554,170 represents equal state and federal funding.

As noted earlier, the Kansas reuse program was identified as a best practices program that saved the state a significant amount of money[19] through reuse in the Medicaid program. Sara Sack, PhD, director of the Kansas AT Program and a member of the National Task Force on AT Reuse, became an often-requested consultant for states

[19] Ibid.

interested in the inclusion of AT reuse in Medicaid programs. To date she has consulted with 18 states.

Kansas Equipment Exchange Operations Model



Dr. Sack advocated the application of standard return-on-investment analysis to AT reuse. Using only the value of the equipment as reported in CATADA data (a percentage of the MSRP), the return on investment in FY 2014 was $3.03 for every dollar spent in the Kansas program. The program recovered Medicaid-purchased equipment valued at $35,602 plus general donations of equipment valued at $1,000,357, for a total of 997 devices valued at $1,035,959. All of those devices were available for reassignment to Medicaid beneficiaries; 854 were reassigned for a total savings of $ 839,201 that year.

Operations. In twelve years of operation, the Kansas program developed broader community involvement and more comprehensive coverage. Some of the newly-developed programs are following this model and one of those will be examined later in this document.

Eligibility. Those eligible to receive equipment from KEE are Medicaid beneficiaries, those Medicaid eligible and those likely to become eligible, and those eligible for limited medical coverage by virtue of limited income and assets, or their disability as determined by Medicaid and their pending application for disability through the Social Security Act. Equipment reuse provides increased coverage to clients and services for individuals who would not be covered otherwise, especially the uninsured and under-insured.

Goal. The goal of KEE is to track, recover, refurbish and reassign high-cost, lightly-used durable medical equipment.

Staffing. KEE operates with a modest staff. The Director of Assistive Technology for Kansas donates time to oversee the program. (AT reuse is one of the mandated activities of the Tech Act Programs.) In addition, KEE has a full-time coordinator and an average of 20 hours per week paid staff at each of the five AT Access Sites. Network team volunteers fill other needs and may be reimbursed for mileage and/or time. Repair and refurbishing is contracted to commercial suppliers.

Addressing liability concerns. The greatest reluctance to embark on a reuse program usually stems from liability concerns. In Kansas these have been addressed by:

1. Maintaining an adequate budget for refurbishment
2. Use of certified vendors for repairs and refurbishing
3. Policy and procedure manuals and training staff and volunteers in appropriate procedures for sanitization, maintenance, pickup and delivery practices to ensure fidelity
4. Requiring professional consultants to match certain categories of equipment (gait trainers, standers, CPAPs, BiPAPs, feeding pumps)
5. Use of a disclaimer of liability on the website and a customer waiver of liability on the delivery form
6. Tracking equipment and accessories model and serial numbers to alert beneficiaries of any manufacturer or FDA recalls.

Acquiring equipment for reuse. Medicaid-purchased devices are stickered with requests to return to the program when no longer needed and some tracking is done to accomplish this objective. Public donations of devices in all categories of DME are accepted by KEE and these accounted for 97 percent of the donations in Fiscal Year 2014. The donations were acquired by conducting public awareness campaigns and partnering with other organizations in donation drives. In addition to special collection drives, devices may be donated at any time by calling a toll-free number at one of the regional access sites to arrange for pick-up.

Devices accepted for donation. Kansas accepts the following devices and makes a special effort to acquire bariatric devices that are in high demand:

- Augmentative Communication Devices (ACDs) (Medicare and Medicaid identify this technology as SGD- Speech Generating Devices)
- Bath benches and shower chairs
- Bi-PAP and CPAP machines
- Commodes
- Feeder seats
- Feeding pumps
- Gait trainers
- Hospital beds
- Patient lifts
- Scooters
- Wheelchairs, manual and power

The Kansas Reuse Program budget includes funds for KEE to track *all* donated devices, whether purchased with Medicaid funds or other sources. The database used for inventory tracking also tracks the assignment of devices so that consumers can be contacted if FDA alerts or recalls are issued.

Kansas Equipment Exchange: Data from Start-Up Period and Recent Years

Year	Consumer Requests	Donations	Value of Donations	Reassigned Devices	Value of Reassigned Devices
Year 1 (2003)	421	275	$325,568	127	$183,941
Year 2 (2004)	631	338	$384,054	269	$320,045
Year 9 (2011)	1,158	777	$1,126,051	701	$949,206
Year 12 (FY 2014)	**1,483**	**937**	**$1,035,959**	**854**	**$839,201**

(Source: Kansas Equipment Exchange)

DME is repaired and refurbished by certified technicians at commercial DME suppliers. Dozens of suppliers have participated in the Kansas program. Medicaid reimburses the cost of refurbishment of durable medical devices. Other funds are used to pay for refurbishing other types of assistive technology. DME suppliers champion KEE, often promoting the program to consumers (who would not have the funds to be their customers otherwise) and recruiting other DME suppliers. KEE brings business to them through refurbishing and as repeat business from KEE consumers who need additional equipment and supplies.

The Medicaid program has priority on use of devices in inventory and may place a hold on specific high-value equipment. However, after 120 days in inventory (an extension from the original period of 90 days), if no hold exists and no KEE consumer is located

who needs the equipment, then the equipment is distributed to other reuse partners in the state network for reassignment.

A professional consultation is required for some devices. KEE staff members are trained to match consumers with appropriate devices. Users are instructed in the proper use of the assigned device(s), and follow-up calls are placed to all device recipients. Consumer satisfaction is tracked.

In FY 2014, 97 percent of the inventory came from general donations. All of those were available to Medicaid beneficiaries. Kansas recovered Medicaid-purchased equipment valued at $35,602 and additional donations purchased with public or private funds valued at $1,000,357.

VERMONT MEDICAID EQUIPMENT REUSE PROGRAM, 2009

The Vermont Assistive Technology Program (VATP) initiated a partnership with Vermont Medicaid in 2009. The purpose of the partnership was to establish a system for retrieving and redistributing Medicaid purchased equipment. A project was developed and implemented through a Memorandum of Understanding (MOU) between the VATP and the Department of Vermont Health Access (DVHA), which houses Vermont Medicaid. The project was in place from 2009 until 2014.

In Vermont, Medicaid retains ownership of equipment at all times. The Medicaid Equipment Reuse Project was developed with this rule central to its operations. The project began with DVHA identifying eight categories of equipment that would be tagged for return when the original recipient no longer needed the item. These categories included AAC devices, manual wheelchairs, power wheelchairs, power operated vehicles, standers, electric beds, shower commode chairs and lifts. Concurrently, DVHA began a process of having beneficiaries sign a document acknowledging that Vermont Medicaid retains ownership and that the equipment would be returned when it was no longer needed. Each durable medical equipment vendor in Vermont was informed of the new process and began placing stickers with return information on these eight categories of Medicaid purchased devices.

Once a device was returned to Medicaid, the VATP was alerted. In turn, the VATP facilitated the transfer of the equipment to area non-profits for refurbishing and redistribution. Technical Assistance was provided to the non-profits regarding Indicators of Quality for Reuse and the VATP acted in the role of coordinator among Medicaid, non-profits, and the new recipient of the equipment. This distributed storage model was utilized for the five years that the project was in operation.

Recipients of the redistributed equipment were generally individuals awaiting eligibility determination for Medicaid, persons who could not afford co-payments for equipment, or those who needed a second device.

Although this program provided an average of $156,768 annually in savings directly to Vermonters on the purchase of durable medical equipment, the VATP ended the MOU with DVHA in 2014. The distributed storage model created several significant barriers to operation. There was insufficient infrastructure in place to continue operations. In order to successfully carry out the project, mechanisms must exist to transport and store equipment, assess the items for safety and function, appropriately sanitize the equipment, and match it to recipients. Although the VATP was able to procure funding to support the work, the necessary facilities and service providers were not available to continue operations and meet the indicators of quality.

To effectively carry out Medicaid equipment retrieval and redistribution in Vermont, legislation needs to be implemented. The VATP's experience with the distributed storage model clarified the need for legislative direction. This would allow the state to build the necessary infrastructure, such as multi-stakeholder development of policies, procedures, and oversight; as well as participation of durable medical equipment vendors in transporting, refurbishing, and matching equipment. The VATP and DVHA have begun conversations regarding next steps toward this goal.

OKLAHOMA DURABLE MEDICAL EQUIPMENT REUSE PROGRAM, 2011

In contrast to more than a decade of operation in Kansas, Oklahoma's reuse program began operations in April 2012, which allowed for a six-month startup period during the first year of programmatic operation. The Oklahoma Health Care Authority (Medicaid) was legislatively mandated to develop and implement a DME retrieval program. After reviewing existing programs, including the Kansas model, the Oklahoma HealthCare Authority (Medicaid) developed a request for proposal for a partner to operate a DME reuse program similar to the Kansas model. ABLE Tech, the state AT Act Program, responded and was awarded the contract. The program was funded in December 2011. Under this plan, DME is appropriately matched, reassigned and delivered to eligible Oklahomans free of charge.

Eligibility. Any Oklahoma resident is eligible with a completed application. The program serves uninsured, under-insured and insured citizens who find the co-pay or deductible too expensive.

Operations. Like Kansas, Oklahoma's Medicaid program pays for inventory tracking of DME retrieved from Medicaid beneficiaries and general donations from other citizens and the repair and refurbishment of equipment for beneficiaries. Contracted DME vendors provide repair services, and in some cases, regional warehouse storage for refurbished equipment. Equipment is reserved for SoonerCare (Medicaid) beneficiaries for 60 days, and then released for distribution to the general public. After 180 days, some items are posted to the Able Tech Exchange Program. Others are provided to the Oklahoma City equipment cache where they are matched to individuals whose DME has been lost, destroyed or is need of repair following a weather-related disaster.

The program began without a statewide distribution network, so it had planned to limit service to the state's two largest cities, Oklahoma City and Tulsa, with delivery service limited to a 50-mile radius of Oklahoma City. The launch of the program created tremendous interest and resulted in alternative transportation options that use vendors and some non-profit entities to access other parts of the state, thereby allowing the program to provide services statewide. The non-profit entities are reimbursed mileage at a reduced rate.

Oklahoma Durable Medical Equipment Reuse Program Initial Years

Year	Consumer Requests	Donated Devices	Value of Donations	Reassigned Devices	Value of Reassigned Devices
Year 1 (April – Sept. 2012)	120	116	$68,078	116	$68,078
Year 2 (2012-13)	469	584	$388,569	582	$363,362
Year 3 (2013-14)	665	708	$378,816	706	$377,078
Total	**1,254**	**1,408**	**$835,463**	**1,404**	**$808,518**

Source: CATADA

Stan Ruffner, DME Program Director for the Oklahoma HealthCare Authority, is pleased with the success of the program, which he says is a "win/win" without negatives. Medicaid case management nurses are in contact with the program on a daily basis to identify equipment for beneficiary needs.

Responding to some initial concerns at the outset, the program held town hall meetings with DME providers to explain how the program would work and the opportunities for the providers. He believes the providers are now supportive and benefit from the repair revenue. As noted earlier, those providers have been instrumental in providing transportation and storage support. He also notes that reuse can fill the gaps with some devices that Medicaid does not provide (e.g., adult nebulizers), and that paying a substantial fee to refurbish an expensive power chair still results in a huge savings, or that purchasing new accessories for a donated CPAP machine is an excellent use of funds.[20]

The Oklahoma program has few Medicaid devices returned to the program, so the majority of the equipment is from public donations. He credits the Able Tech program leadership with community outreach to generate support and donations. Print and TV news stories (which tend to develop about every six months) result in increased donations, and the program sponsors periodic donation drives.

[20] Stan Ruffner, conversation with Trish Redmon, 8/18/2015.

VIRGINIA REUSE NETWORK: LIMITED TRIAL TO RECLAIM AND REUSE DME, 2011

The Virginia Reuse Network is a working partnership of the Virginia Assistive Technology System (the AT Act Program), the Department for Aging and Rehabilitative Services, the Foundation for Rehabilitation Equipment and Endowment (FREE), and the Commonwealth Neurotrauma Initiative. As noted earlier, a Medicaid official serves on the Advisory Council for the Reuse Network. FREE Foundation, a pioneer in the reuse of DME starting in 1999, operates the reuse program for the network. Two years ago, at the urging of Vocational Rehabilitation, Medicaid initiated a pilot program with DME vendors in the Roanoke area to place stickers on devices purchased by Medicaid. The stickers urge that the devices be donated if no longer needed. Donated equipment is sanitized and refurbished by FREE and distributed through the statewide Reuse Network. However, as noted in the Kansas and Oklahoma experiences, the rate of equipment return from Medicaid beneficiaries is not high volume.

PARAQUAD CENTER FOR INDEPENDENT LIVING (CIL) REUSE PROGRAM

Another model for engagement with Medicaid is providing repairs and maintenance for durable medical equipment. This is the case with some Centers for Independent Living that engage in reuse programs. One example is Paraquad, Inc., in St. Louis, one of the country's oldest CILs. Paraquad operates an accredited Assistive Technology Program that includes being a recognized supplier of repair services for both manual and complex rehabilitation equipment. Maintenance by certified repair professionals is a major service for clients with disabilities. The income from repair services provides approximately one-fourth of the funding needed to operate the program.

PROPOSED GEORGIA MODEL: NONPROFIT REUSE PROGRAM AND MEDICAID IN MAJOR HOSPITALS

One proposed model for reuse is a partnership with hospitals that would serve Medicaid beneficiaries by providing essential DME upon discharge, perhaps only as an interim solution while awaiting new devices for which they may be eligible. Friends of Disabled Adults and Children (FODAC), the nonprofit reuse partner of Tools for Life, Georgia's AT Act Program has assisted Grady, Atlanta's large public hospital, by providing durable medical equipment for uninsured patients upon discharge and it also works directly with Rockdale Medical Center in Conyers to provide needed equipment for uninsured patients. Neither partnership is a Medicaid program.

E. MEASURING OUTCOMES

The simplest model for measuring success of reuse programs is tracking the growth in number of devices and value of equipment acquired and reassigned and the number of customers served. The reutilization activities of the AT Act Programs are tracked through NISAT and made available to the public through the Center for Assistive Technology Act Data Assistance. Only reuse activities that receive financial assistance through the AT Act are reported, and a significant number of nonprofit and volunteer organizations engage in reuse. Programs were surveyed for voluntary reporting in 2006, but reporting from all AT Act Programs really began in 2008.

Device Reutilization Reported by AT Act Programs

Year	Exchange Number	Exchange $ Value	Refurb./ Reassign Devices	Refurb./ Reassign $ Value	Open-Ended Loans	Loan $ Value	Total Devices	Total $ Value
2008[1]	1,312	3,365,398	22,738	11,553,160	6,019	2,414,725	30,069	17,333,283
2009	1,450	3,559,476	26,936	12,236,872	6,343	1,432,431	34,729	17,228,779
2010	1,331	2,826,996	28,389	13,355,432	6,124	1,795,618	35,844	17,978,046
2011	1,564	2,474,173	30,928	12,745,444	7,501	2,110,916	39,993	17,330,533
2012	2,100	3,315,152	28,740	11,339,569	19,483	5,198,708	50,323	19,853,429
2013	3,206	3,315,152	37,877	14,618,227	8,422	3,013,585	56,588	20,946,964
2014	3,428	2,917,564	43,693	18,129,877	10,624	4,214,568	57,745	25,172,009

[1] First year of full reporting for reutilization activities.
[2] Center for Assistive Technology Act Data Assistance (CATADA). (2015). http://www.catada.info.

Using this form of outcome measurement, the program is evaluated based on how many customers are served and how much money is saved based on some comparison to the retail cost of equipment. While this provides an interesting gauge, it does not measure several variables: the cost of lost income for the person in need of durable medical equipment, or lost education time for a student, the cost of providing care to the individual, or the cost of additional medical care that may be incurred in the absence of needed durable medical equipment. It also ignores the value of avoided environmental costs when equipment is kept from landfills.

While volume and value tracking are important, more sophisticated and complex measures of the value of reuse activities have been developed and shared.

ANALYSIS OF RETURN ON INVESTMENT FOR AT REUSE

Dr. Sara Sack, National Task Force member and director of the Kansas AT Program, initiated the application of a common business measure, return on investment (ROI), to AT reuse. Originally this involved simply using the valuation of the donated AT devices and the cost of program operations to compute the return. This was sufficient to win the approbation of a Kansas legislator when early analysis showed a return of $2.62 for

every dollar spent. Later, she refined the use of return on investment for use as a decision-making tool, demonstrating that a collection drive for lightly-used, high value devices or bariatric equipment resulted in a greatly increased ROI ($8.39 for every dollar spent) when compared to using resources to acquire generally available durable medical equipment.

To "value" donations for use in ROI equations and savings related to reuse, it is recommended used equipment be valued at 75% of the manufacturer's suggested retail price. That is what Medicare will pay for used equipment. Also, in the ROI equation, all new costs related to reuse needs to be considered, such as pick-up, tracking, cleaning, repairs, etc.

EXAMINING USER OUTCOMES

Some of the earliest research on reuse outcomes was conducted by Washington University and Carla Walker, Kerri Morgan and Lindsey Bean of Paraquad's AT Reuse Program in St. Louis. This research addressed the outcomes experienced by recipients of mobility devices, shower benches and raised toilet seats or commodes. The data collection instrument surveyed outcomes by domains of participation. Paraquad subsequently incorporated a modified version of the outcomes survey into its standard practices. That survey instrument and the methodology were shared in a Pass It On Center webinar and are included in the Knowledge Base.[21]

INCLUDING AVOIDED COSTS IN THE VALUATION OF REUSE

While Paraquad surveyed actual outcomes, the Foundation for Rehabilitation Equipment and Endowment (FREE) of Virginia, a reuse partner in the Virginia Assistive Technology System (VATS), devised measures to value the avoided outcomes resulting from AT reuse. FREE's questionnaire was designed to determine whether the user became more independent, had fewer falls, reduced visits to doctors or emergency rooms, reduced the length of hospital stays, or were able to remain in his/her current residence without requiring a higher level of care. FREE identified the cost of those negative outcomes to quantify the value of avoided costs. For every 100 persons served, it identified $465,586 in avoided costs.[22] Kansas also collected data on the use of $180,000 with 1,000 people, of whom 12 reported that the program kept them out of an institution or got them out of one.

Building on earlier efforts, the Pass It On Center proposed a more comprehensive calculation of the value of AT reutilization (tentatively dubbed a Calculation of the Approximate Value of Investment in AT Reuse or CAVIAR) that incorporates the value of

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[21] *Measuring AT Reuse Outcomes at Paraquad*. User Services Module, Pass It On Center Knowledge Base at http://www.passitoncenter.org/content.

[22] For more information, see March 2011 webinar, *Making the Business Case for AT Reuse*, in the webinar archive at www.passitoncenter.org.)

equipment, the value of prevention, environmental impact savings and the economic value of work. When Kansas used very conservative assumptions to include some of the avoided costs, it increased overall ROI from $2.62 to $3.11.[23]

Even this proposed calculation does not attempt to value improved function, the ability to work or attend school, the capacity to care for one's self or family, or the effects of depression and isolation that may result from mobility limitations. Some research has been done on the effects of depression and isolation, but not on avoided outcomes. There is a need for additional research to understand the relationship and the availability of appropriate, lightly used DME as part of a strategy to prevent falls or secondary injuries. Indeed, such research might impact the provision of more DME, whether new or reused, to help contain the resulting medical costs.

There is a significant need for research comparing the outcomes with different devices. Receiving a device over no device at all is certainly important, but receiving the most appropriate device to address medical and functional needs should be the goal. Far too little research has been conducted to assist policy makers and clinicians to determine and identify the appropriate technologies for an individual. The consolidation of billing codes used to group products for reimbursement purposes now has some codes that do not group homogeneous technologies, and yet coverage policies are developed based on these codes. Research that compares features and options to assist in identifying the impact of trade-offs that occur in the technology recommendation process would help payers, clinicians and consumers in determining what will provide the best outcome given an individual's specific needs, activities and routine environments. In order for technology to play an appropriate role in the reduction of health care costs and improved outcomes, more research and more data is needed.

THE POTENTIAL DOWNSIDE OF REUSE

Widespread reutilization of DME has the potential for unintended negative costs as well, including the possibility of a decrease in innovation. If a market is not large enough to support product design and development, manufacturers will further reduce these efforts. Also, fewer new units sold, combined with multiple years of decline in reimbursement, is reducing innovation and the number of options and configurations (especially for mobility equipment) that can be supported by manufacturers. This is particularly problematic for manufacturers of complex rehabilitation technology because the market size is small. Unique items with very small populations of people that need them will be the first group to be impacted. The result will be fewer options and higher costs for the options that remain available.

[23] Ibid.

F. ADMINISTRATIVE AND OPERATIONAL ISSUES

Governmental and nonprofit reuse partnerships face challenges similar to commercial businesses. They must comply with legal and regulatory issues related to the equipment, the workplace, and the management of employees. Most reuse programs are heavily dependent on volunteers, and that presents additional challenges for training and consistency of task performance. Sustainability is an ever-present concern, and Medicaid partnerships may provide increased stability for AT reuse programs while realizing a significant return on the investment of taxpayer dollars.

The Indicators of Quality for AT Reuse (IQ-ATR), developed with national input and broad review, were released in September 2009. They address the administrative and operational issues faced by AT reuse programs. The following sections reference the Indicators of Quality that apply to Medicaid partnerships. The complete report and the Online Program Assessment Tool can be found at the Pass It On Center. Each indicator includes a rationale and a set of Key Factors for Consideration. The purpose of the assessment is to highlight areas that need improvement and to provide resources to support change.

Program leaders must have the knowledge, skills and experience specific to their assigned roles. *(IQ-ATR 5.1 - Management Expertise)*

A start-up program will benefit from the inclusion of at least one key program leader with broad knowledge of durable medical equipment. Chief issues related to the reuse of AT devices include the potential liability related to safety of the equipment for reuse, possible transmission of disease, and the use of volunteers to perform key tasks. Specific strategies recommended for risk mitigation include implementation of policies and procedures related to sanitization of devices, tracking of devices for recalls, and the use of waivers of liability when transferring ownership of devices. *(IQ-ATR 5.3 - Risk and Liability Management)*

LEGAL/COMPLIANCE

Reuse programs are subject to employment, workplace, health and environmental laws. In addition, the program must maintain its records within the provisions of its legal (or tax) status and all applicable laws. *(IQ-ATR 5.4 - Recordkeeping)*

LIABILITY AND DEVICE SAFETY

Reuse programs can mitigate risk by following some recommended practices. These include: (1) informing consumers that the devices are used and clarifying what warranties, if any, are offered with the equipment; (2) involving professionals in the matching of appropriate equipment; (3) demonstrating safe and appropriate use of the equipment for the new user and making user manuals available if possible; and (4)

maintaining a system for notifying the new user if warnings or recalls are issued for the device. These are addressed in detail in the User Services section below.

Policies and procedures for all aspects of operations are essential to safe operations. This requires ongoing education, training and supervision to ensure compliance with the policies and procedures.

Reuse programs must assure safety and sanitization practices for the workers who clean and refurbish and for the next user of the reclaimed equipment. This subject received significant attention in the education and training resources provided by the Pass It On Center. The suggested sanitization practices are consistent with the recommendations of CDC. These issues are included in the Indicators of Quality for AT Reuse.

The safety of users of refurbished equipment requires the ability to track the assignment of specific devices to notify recipients of consumer warning or recalls, whether issued by the Food and Drug Administration (FDA), the manufacturer, or the Consumer Product Safety Commission. Regulatory compliance also includes requiring prescriptions for devices that require prescriptions under normal circumstances, following state laws related to device setup by specific healthcare professionals, and training staff in patient privacy regulations under the Health Insurance Portability and Accountability Act (HIPAA).

Programs should establish policies related to the age and/or condition of devices deemed acceptable for reuse. In promoting equipment donations, it is important to inform the public of the types of devices that will be accepted, required condition and age limitations. Age is not always the most significant indicator of acceptable condition, but it is important. Tests by RESNA were based on assumptions of an average life expectancy of five years for wheelchairs. The target should be lightly used devices and the program should adhere to carefully established evaluation criteria.

If recovery of a high percentage of Medicaid purchased equipment is the goal, the program (Medicaid) may want to retain ownership. If Medicaid retains ownership, the item can be tracked and the beneficiary can be contacted to determine if the equipment is still being used. Some reuse programs transfer ownership of the refurbished device to the new consumer/beneficiary with a request (and sometimes a sticker with information) that the device be returned when no longer needed. The consumer accepts the sanitized, refurbished device ‘as is’ and signs a release from liability. Some programs warranty devices for a limited period of time, providing repairs as needed during the warranty period.

FINANCIAL

Medicaid programs receive both federal and state funds (see Section II.) All Assistive Technology Act programs receive some federal funding; some also receive state support. The reuse component of the program often involves partnerships with nonprofit organizations committed to reuse, centers for independent living, or other organizations

that serve people with disabilities. The partnership often helps to defray the cost of operations through shared facilities, staff or overhead costs. Some programs leverage the cost of sanitization and device refurbishing to generate earned revenue. For example, they may offer repairs by certified technicians or offer inexpensive manual wheelchair cleaning in a commercial-grade automated device in which several manual wheelchairs can be sanitized simultaneously. The repair service at Paraquad in St. Louis generates revenue to cover about one-fourth of the cost of the reuse program.

Nonprofit reuse programs may receive additional support in the form of grants from one or more sources. Some programs have reported receiving funding for diverting equipment from local landfills. The challenge becomes maintaining a stable stream of revenue to sustain the program.

Reuse programs vary significantly in size and therefore budgets. After surveying exchange and reassignment reuse programs in 2008-2009, Dr. Sara Sack defined a sizing model based on the number of devices exchanged or reassigned in a year. No programs in the sample fit in the X-Large category. These survey respondents were not all Medicaid partnerships, and these are annual expenses, not start-up program costs.

Annual Expenses for Reuse Programs by Devices Reused per Year [24]

Expense Category	Small 1-50	Medium 51-199	Large 200-499	X-Large 500-999	XXX-Large 2000+
Personnel	$40,000	$70,000	$80,000	NA	$140,000
Travel In State	$500	$500	$1,000 – 2,000	NA	$3,000
Project Supplies	$200	$500	$1,000	NA	$1,500
Web Site Hosting	$900	$500-5,000	$500	NA	NA
Phone	$500	$500	$1,000-1,500	NA	$1,500
Printing	$500	$500	$500-750	NA	Included in PR/Marketing
Marketing/ Public Relations	$200	$0	$4,650	NA	$2,500
Equipment Shipping/Pickup	$100	$1,500	$1,000	NA	$2,000
Refurbishment Supplies	$0	$20,000	Not reported	NA	$42,000

Based on research by Sara Sack, University of Kansas

[24] Sack, Sara. *Budgeting Session, Creating or Improving Your AT Reuse Program Pre-Conference*. Assistive Technology Industry Association Conference, Orlando, 2009.

The issue of funding a reuse program that includes Medicaid is one of identifying the intersection of need and services, then defining a sustainable model. Start-up budgeting is addressed in Section 6 – Implementing a Reuse Partnership.

Programs with technicians for refurbishing reported an average of $45,000 for salary and fringe benefits. Rents, if applicable, ranged from $4,500 to $20,000 annually. Transportation is a common issue for reuse programs that rarely have adequate budgets to support enough vehicles for pickup of donation and delivery of equipment. It is another area that often depends on partnering with other organizations.

PROGRAM OPERATIONS

The Indicators of Quality for AT Reuse developed in 2009 address all areas of Program Operations. They are cited in appropriate sections to describe the expected practices.

PARTNERSHIPS: AGREEMENTS, ROLES, RESPONSIBILITIES

The contract between Medicaid and the AT reuse program will specify roles and responsibilities. These will be clearly defined.

EQUIPMENT TRACKING

The program should have written policies and procedures and an accurate and efficient method to track the inventory of available devices that includes:

- Unique identification of every donated device (by paper label or bar code)
- The ability to determine the availability of devices by type
- The assignment of an inventory valuation to each device (often based on a percentage of the manufacturer's suggested retail price)
- The frequency, scope, and cost of previous repairs to determine if future repairs should be approved or if the item should be eliminated from the inventory
- The ability to identify devices subject to recall notices
- The ability to identify customers who have received devices subject to recalls, market withdrawals or safety alerts

(IQ-ATR 3.4 - Device Tracking, IQ-ATR 3.5 - Device Valuation and IQ-ATR 3.6 - Management of Device Recalls, Market Withdrawals and Safety Alerts)

The inventory system should be capable of capturing detailed specifications for equipment (e.g., manufacturer, model number, serial number, seat height, seat depth, weight limit for a manual wheelchair). This data facilitates the identification of appropriate equipment for specific needs.

The program may formulate policies related to priority holds or wait-listing for the Medicaid program or other participants.

Appropriate disposal of devices that have no more useful life can present a challenge to the reuse center, especially if those devices are electronic and/or digital. The

components of many electronic devices are potential hazards to the environment if not disposed properly. When a device has no more useful life, disposal of the device must be done in a manner consistent with environmental regulations. Reuse programs should identify certified recycling resources. *(IQ-ATR 3.17 - End-of-life Recycling)*

SANITIZATION

When devices are acquired by an assistive technology reutilization center, one of the first priorities is to make those devices safe for use by other individuals. Steps should be taken immediately to minimize the potential transmission of disease. The best way to protect all individuals who will come into contact with reutilized equipment is to institute sanitization practices that make the objects safe to handle and to use. The recommended practices are based on manufacturer recommendations, guidelines from the CDC and the practical experiences of reuse programs in implementing these recommendations. *(IQ-ATR 3.10 - Sanitization of Donated Equipment)*

REFURBISHING, REPAIRING AND STORING DONATED DEVICES

The program has written, device-specific procedures that are applied consistently for evaluating the repair and refurbishing needs of donated equipment *(IQ-ATR 3.9 - Evaluation of Used Devices).* Once identified, the refurbishment/repair of equipment must be performed in a manner that is consistent with manufacturer instructions and original specifications (IQ-ATR 3.11 - Refurbishing Donated Equipment).

Programs offer a limited warranty on refurbished devices, often a 30-day warranty with a commitment to repair or replace the device if necessary *(IQ-ATR 3.14 - Limited Warranty for Refurbished Devices).*

Appropriate storage facilities are essential to separate sanitized from unsanitized equipment; to organize storage of different types of devices; and to provide proper heating, cooling and ventilation as needed *(IQ-ATR 3.15 - Storage of Donated Equipment).*

TRANSPORTATION

Procedures and training are essential for picking up donated equipment or delivering refurbished devices *(IQ-ATR 3.16 - Transportation of Donated Equipment).*

USER SERVICES

User Services address the intake of the consumer at point of application for services, and interactions and services from the time the consumer is assigned a piece of equipment.

PATIENT INFORMATION PRIVACY COMPLIANCE (HIPAA)

As noted above, program staff should be trained in the privacy provisions of HIPAA.

INTAKE AND ELIGIBILITY PROCESS

Customer or patient intake may result from referral by a physician, hospital or other professional resource, or it may be the result of self-referral. Each program specifies eligibility requirements. The application for services should gather sufficient detail to determine eligibility *(IQ-ATR 4.1 - Customer Intake).*

PRESCRIPTION REQUIREMENTS AND MATCHING DEVICES TO CUSTOMER

As noted earlier, the reuse program should adhere to all prescription requirements. Appropriate device reuse for some categories requires appropriate matching of devices to customers based on medical prescriptions and the services of professionals (e.g., occupational therapists or other AT professionals) (*IQ-ATR 4.2 - Matching Device to Customer).*

The customer and direct support provider(s) are informed of all appropriate device options and are allowed to participate in the choice of device *(IQ-ATR 4.3 - Customer Choice).*

The customer and his direct support provider(s) are given basic training on features, operation, maintenance, safety and troubleshooting for the device at the time the device is reassigned *(IQ-ATR 4.4 - Customer Training on Device).* The customer is given a trial period with the device *(IQ-ATR 4.5 - Customer Trial on Device).*

If the customer is unable to pick up the equipment, it may be delivered by trained staff. Some programs have limited transportation alternatives *(IQ-ATR 4.7 - Equipment Delivery to Customer,* IQ-*ATR 4.8 - Trained Delivery Staff).*

If a new user experiences difficulty, he or she should be able to call for and receive technical assistance *(IQ-ATR 4.6 - Technical Assistance).*

Programs should establish a follow-up protocol to ensure that the needed devices are being used and that the customer has not encountered difficulty *(IQ-ATR 4.9 - Customer Follow-up).*

G. LESSONS LEARNED ABOUT IMPLEMENTING PARTNERSHIPS

What are the goals for implementing a durable medical equipment reutilization program within Medicaid? Usually, the primary goal is to optimize the use of the Medicaid funds through safe and appropriate reuse of lightly-used durable medical equipment. It is expected that the program will save money in the aggregate after the start-up period. The reuse program implementation plan must address the provision of new versus used equipment if the reuse program is to be sustainable and if consumers' needs are to be met.

Implementation of managed care in some states appears to have resulted in an increased focus by care coordinators on locating used equipment in an effort to reduce program expenditures. Reuse programs have been very successful in presenting lightly used equipment as one option if the needed device is available, not the only option. To date no program has advocated (and the Pass It On Center does not support) the removal of consumer choice.

Another primary consideration is the inclusion of commercial suppliers. The intent is not to take away from suppliers, but to preserve a role for everyone.

HOW TO GET STARTED

Before starting a program, it is essential to identify legal barriers to reuse under existing laws or Medicaid program regulations. Change sometimes requires legislative action or regulatory changes within an agency. If changes are needed, it may be possible to secure the commitment for change and proceed with planning while those changes are implemented.

CONVENE A WORK GROUP OF KEY STAKEHOLDERS

Identify the populations that are served through the Medicaid program. The extent of eligibility varies by state; some coverage is mandated. Having done this, it will be possible to identify agencies, organizations, and individuals who serve those populations and might be affected by a reuse program. Including representatives from all stakeholders increases the opportunities for a successful program launch. This group typically includes representatives from:

- Medicaid program
- Assistive Technology Act Program
- A representative of the Pass It on Center with expertise in Medicaid and Reuse Initiatives
- Independent Living Council
- Agencies on Aging

- Commercial DME suppliers and/or a representative from the state association of medical equipment suppliers
- Nonprofit suppliers of DME or related services in your state (often Goodwill, Easter Seals, United Cerebral Palsy, or faith-based organizations)
- Advocacy groups for people with disabilities

This group could include representatives from other government agencies that purchase DME, with the goal of gaining support for reclaiming equipment that is no longer needed. In Virginia, for example, the Brain Injury Trust Fund and the Veterans Administration also sticker newly-purchased devices for return to the reuse program. It could also include representatives from hospitals that serve large numbers of Medicaid patients, with the goal of assigned needed DME as soon as possible upon or after discharge. This strategy optimizes recovery (or at least best outcomes) and impacts the Medicaid budget by avoiding return visits to doctors, emergency rooms and hospitals.

An initial step should be acquainting the group with successful models of reuse in Medicaid. The Pass It On Center can provide information and presentations, or the group can invite a representative from an existing Medicaid reuse program.

DEFINE SCOPE OF SERVICES

A review of existing models can aid the identification of desirable activities and characteristics for the proposed program. The Pass It On Center is a useful resource for implementation resources. The August 2012 webinar on Medicaid is a good starting point for discussions. The slides and audio are available in the webinar archive (accessible from the PIOC website home page.[25]) The Knowledge Base contains a broad range of information for the operation of a reuse program including a guide to developing a business plan and a three-year financial plan. It also includes an example of a Request for Proposal.

The workgroup will need to define the scope of services to be offered. This includes specification of devices or equipment that will be accepted for refurbishing and reassignment. The program may want to limit reuse to devices or categories that represent the greatest return on investment. Bariatric equipment and sleep apnea devices are expensive and in great demand, for example.

There are other considerations. A refurbishing program may elect to limit devices to specific manufacturers. For example, if wheelchairs are accepted only from two or three major manufacturers, technicians will be trained for those and repairs can be made more

[25] *Medicaid: A Look at Reuse in Current Programs.* (August 2012) Pass It On Center. Available at http://www.passitoncenter.org/webinars.aspx

efficiently. Doing so could also limit the range of spare parts needed. As noted earlier, highly customized devices may be less appropriate for reuse for many reasons.

The group should also address supporting services that will be offered. These could include assessment for appropriate equipment (which requires appropriate professionals), matching to appropriate devices (also sometimes requiring professionals such as occupational or physical therapists), and maintenance and repair of the assigned devices. (Some state laws mandate assessment or fitting of specific devices by healthcare professionals with specific credentials. Again, state law is very important in program design.)

Optimizing processes and procedures will contribute to financial outcomes. For example, Friends of Disabled Adults and Children, a nonprofit reuse program in Metro Atlanta, adopted a “value stream” production system to streamline program operations.

It will be easier to identify participating organizations or individuals and their potential roles in the program after the proposed operating model has been defined. This model should consider device acquisition strategies, safeguards from liability, eligibility, priorities for inventory usage, and a distribution strategy.

Medicaid covers the entire state, so decisions must be made about how to serve different geographic areas. Reuse programs frequently encounter the issue of transportation for device delivery. Programs often create a network using existing agency resources, volunteers from organizations in the network, or contractual arrangements with commercial suppliers.

ADDRESS LIABILITY CONCERNS AND PROGRAM OPERATIONS

All programs face two areas of liability concern: issues of organization structure, governance, insurance and human resources, and issues related to reuse program operations. Compliance with all prevailing laws and regulations is critical. This includes compliance with provisions of the Food, Drug and Cosmetic Act (FDA) that apply to some devices, especially the ability to identify the recipient of a specific device to respond to alerts and recalls. Programs also need to require prescriptions for those devices that would require prescriptions for acquisitions from commercial suppliers. Liability arising from program operations can be mitigated by implementing policies, procedures and training that are consistent with the Indicators of Quality for AT Reuse (see http://www.passitoncenter.org).

Programs should have a protocol in place to ensure that the donor owns the equipment or has the right to donate it. This avoids having items donated that remain the property of some other agency or entity or that were stolen. Other forms of liability are mitigated by having standards for age and condition of donated devices, having the devices repaired and refurbished by qualified technicians, using appropriate replacement parts, and sanitizing the devices properly for the safety of workers and recipients.

Liability follows ownership. In most reuse programs, the reuse program assumes ownership of the donated device, whether purchased by Medicaid or another party. The device is sanitized, repaired and refurbished as needed, then reassigned to a new user who accepts ownership and signs a release from liability.

Intake procedures must include a determination of eligibility based on regulatory or agreed-upon guidelines. HIPAA compliance is essential. Medicaid must determine if it will reserve the right to place priority holds on inventory items, and if so, for how long. The reuse program must determine how long it will hold items in inventory. This could vary by category of device and by available storage space.

Where needed or required by law, appropriate professionals (e.g., physical therapist, occupational therapist or respiratory therapist) should match devices to beneficiary needs. The correct fit or adjustment is a critical factor in acceptance and use of AT.

Liability can take the form of injury or property damage. In over 10 years of operation, the Kansas reuse program has experienced only four incidents that *could have* resulted in liability issues. A back injury by a staff member, an overturned power chair and a hospital bed collapse were addressed with staff training and clarification of practices. In the fourth incident, gouged vinyl flooring in the customer's home was replaced.

Customer follow-up helps to ensure that the device is appropriate, acceptable and being used.

Programs need to be prepared to dispose of devices that have no more useful life, either through cannibalization for useful parts or environmentally safe disposal by using certified companies for disposal. Reuse programs are cautioned against altering devices from the original manufacturer specifications (remanufacturing) as a serious potential liability. All repair and refurbishing should be consistent with the original manufacturer's specifications.

PREPARE A PROJECT PLAN AND PRELIMINARY BUDGET

The Pass It On Center includes a preliminary project plan among its resources[26], but it might prove useful to review the experience of recently implemented programs. Every project is different because the state, the Medicaid program, and the issues vary.

The Medicaid program will need to develop a budget for the agreed-upon activities. For example, in Kansas this includes supporting the database and tracking expenses for all

[26] *Business and Strategic Plans*. (July 11, 2011) Pass It On Center. See sample plans attached to article in Organization Module of the Knowledge Base.

reutilized equipment and compensating suppliers for repairs for those devices reassigned to Medicaid beneficiaries. It might include expense allocations for the use of professionals for other specific activities, and for the pickup or delivery of equipment. The budget would be based on assumptions about the number of individuals to be served. Again, recent experience in other programs might offer useful data.

In most states, the Medicaid program would need to prepare a request for proposal (RFP) to contract services with other suppliers for the reutilization services. The Oklahoma RFP is available in the Pass It On Center Knowledge Base. Responses to the RFP would be reviewed to identify the reuse partner.

Funding the program is a key concern, and budgeting should be realistic. It may not be practical to expect a return during Year One, but significant benefits should be realized after the program is in place. The acceptance of the program will depend on how well it is explained to prospective beneficiaries.

For start-up budgeting, Dr. Sara Sack, Director of the Kansas Equipment Exchange recommends that Year One and perhaps Year Two assume that the program will be "cost neutral," that is, that significant savings may not be realized for the first two years. In commercial terms, this would be planning for break-even operations before profitability.

The program will first need to determine how it will operate and the level of funding needed to support the infrastructure. It will take some time to establish a reassignment network – that is a network of organizations that provide intake, eligibility, matching and distribution services. It will also take some time to build a working inventory from donated devices to have the appropriate equipment to reassign. Once the program is established and the public becomes aware of the need and the services, circumstances change rapidly. For example, Oklahoma experienced a rapid expansion in supporters and voluntary partners shortly after start-up as other agencies and organizations working with people with disabilities recognized the value of the reuse program. At that point, equipment purchased by sources other than Medicaid (insurance, private pay, etc.) is being donated and some Medicaid-purchased equipment is being recovered. When this point is reached, a return of one to two dollars for every dollar spent is probably a safe assumption. The return on investment could be much higher, but this depends on the inventory and distribution model. Each program must analyze the decisions made about the operational model for budgeting assumptions.

DETERMINE HOW PROGRAM WILL BE FUNDED

There are many models for reuse partnerships, and they should be examined to determine which, if any, are appropriate for the circumstances in a given state. Medicaid can analyze which items or categories of devices represent the greatest potential for successful reuse.

The Medicaid durable medical equipment budget should not be used to start a reuse partnership. The program start-up costs should be budgeted separately. Otherwise, neither funding for new devices nor appropriate used devices might be available for beneficiaries. It is important to build a viable reuse program with an inventory of devices appropriate to the population before assuming the availability of lightly-used devices in the budgeting process.

In some states, the reuse program uses Medicaid funds to refurbish equipment for Medicaid beneficiaries. The refurbishing may be done by a separate reuse facility or by commercial suppliers that partner with Medicaid. In other states, DME refurbishing suppliers offer repair services for Medicaid and the public, and submit the request for reimbursement for Medicaid beneficiaries directly to Medicaid. Medicaid may pay the cost of inventory management for all used devices recovered in exchange for priority claim on devices. Medicaid could identify a specific category (or categories) of devices that it deems more practical or beneficial for reuse.

IDENTIFY DESIRED RETURN ON INVESTMENT

Each Medicaid program should consider the categories of devices that result in the greatest expenditures and weigh how reuse might impact those categories. This would include consideration of devices that are more generally short-term use and more likely to be recovered or donated to the reuse program. It could be a consideration for a category that is particularly expensive, such as bariatric devices.

In addition to the value of equipment (and money saved), there are other factors that can be included in the calculation of return on investment:

1. Avoided falls and the resulting consequences (physician visit, emergency room visit, nursing home stay, or hospital stay),
2. Increased independence in employment, education, recreation and everyday activities,
3. Prevention of lost earnings by the user, relatives or other caregivers, and
4. Savings from avoided landfill costs related to discarded DME that has a remaining useful life. (See Appendix III.)

DONATION AND REASSIGNMENT SAFEGUARDS

A first step in safeguarding donations is to ensure that a prospective donor has the right to donate the equipment to the reuse program. Some DME is purchased by organizations that retain ownership and would expect the device to be returned if no longer needed. While reuse programs do not purchase devices (so there is no incentive to donate stolen property), it is still advisable to have policies for ascertaining the right of the donor to give the equipment *(IQ-ATR 3.8 - Donated Equipment: Confirmation of Donor's Ownership).*

Reassignment can be safeguarded to ensure that the devices are not being obtained for resale. Appropriate application and intake policies should collect information about the intended user, and that user should be appropriately matched and trained in the device use. This should result in personal interaction with the device recipient.

DEFINE REIMBURSEMENT MODELS FOR DME SUPPLIERS

In most Medicaid partnerships, DME devices are not sold. However, if approved by change of law or policies, devices could be refurbished by certified suppliers and purchased by Medicaid for reassignment to beneficiaries. Services, such as device repairs either before or after the device is received, may be reimbursed by Medicaid. In these cases, the program will define qualifications for suppliers. In some cases, the suppliers are commercial DME suppliers with certified technicians. In others, the supplier may be a reuse program with appropriately trained technicians.

EXPLAIN THE ROLE OF REUSE TO BENEFICIARIES

The program will need a public awareness campaign to explain key facets of the reuse program:

- Why used versus new
- What makes this safe and effective
- Who owns the equipment, implications for consumers
- How the beneficiary gets equipment repaired
- Stories from actual users

This information can be disseminated through the network of partners and associated organizations and through the use of public media.

A TIMELINE FOR IMPLEMENTATION

The Oklahoma Durable Medical Equipment Reuse Program was launched officially in December of 2011 with the award of a contract to ABLE Tech, the Oklahoma Assistive Technology Act Program. This was the culmination of a long journey described in the timeline below. The actual launch was accomplished in a compressed timeframe once the decision to proceed was made. Circumstances vary in each state, so it is impossible to predict how long it might take to remove legal and administrative barrier, to organize interested parties, and to create an operational reuse program with Medicaid. At the most optimistic, this timeline might be compressed to 12-18 months by using the experience of existing programs and the resources provided by the Pass It on Center.

Key Events in Establishment of Oklahoma Durable Medical Equipment Reuse Program

Year	Activity
1999	Medicaid changed its policy from individual ownership of devices purchased with Medicaid funds to one that permitted the state to retain ownership.
2008	A state legislative task force put language into law to implement a retrieval program as part of the Olmstead Act Task Force. This was to be implemented by 2010, but no funds were budgeted to start the program.
2009	▪ Stan Ruffner became Director of Durable Medical Equipment at OHCA. ▪ Oklahoma had five representatives at the National AT Reuse Conference: Linda Jaco, Milissa Gofourth and Diana Sargent from Oklahoma ABLE Tech, Stan Ruffner from the OHCA, and Allison Vanden from Acts of Kindness. ▪ The Oklahoma Health Care Authority (OHCA) released a request for information (RFI) regarding DME reuse.
2011	August – OHCA released a request for proposal (RFP) for a reuse partner. December – ABLE Tech awarded the contract.
2012	Reuse program opened for business with funding to provide pickup and delivery services only for the area within a 50-mile perimeter of Oklahoma City. Major interest and cooperation quickly escalated and expanded the reach of the program throughout the state.

APPENDICES

I: RESOURCES

II: CATADA DEVICE CLASSIFICATION SYSTEM

III: CAVIAR – A RETURN ON INVESTMENT CALCULATION

APPENDIX I: RESOURCES

Documents

The resource documents are too many and too large to include in the report, but are readily available in the Pass It On Center (PIOC) Knowledge Base under the title, "AT Reuse in Medicaid." These include:

AT Act Programs: Reuse Activities by State

Benefits of the Kansas Equipment Exchange Program

Categories of Equipment for AT Reuse

Frequently Asked Questions (about starting Medicaid partnerships)

Medicaid Transformation Process, A Report of the Kansas Health Policy Authority, 2009, Chapters 1 and 4 referencing reuse of durable medical equipment (DME.)

Oklahoma Medicaid Request for Proposal for Reuse Contractor

Oklahoma DME Reuse Program Operational Manual

Oklahoma DME Reuse Program – Customer Application Packet

Oklahoma DME Reuse Program – Fact Sheet

Provider Report from Kansas Equipment Exchange (example)

Pass It On Center Webinars of Specific Interest for Medicaid Partnerships (see Webinar Archive)

Education, Training and Certifications, July 2013

Expanding Reuse through Public and Private Partnerships, August 2011

Innovative Strategies to Engage DME Suppliers in AT Reuse: How Everyone Can Benefit, December 2012

Lessons Learned from the 12 AT Demonstration Projects: Outcomes, December 2011

Making the Business Case for AT Reuse, March 2011

Medicaid: A Look at Reuse in Current Programs, August 2012

Planning a Sanitization Program, July 2010

Other Pass It On Center resources include:

Knowledge Base

This collection of supporting information for AT reuse programs includes PIOC-authored articles and content donated from reuse programs around the country, many with accompanying fact sheets, brochures, examples, models or checklists.

Indicators of Quality for AT Reuse (IQ-ATR)

Developed by a national work group in 2009, this document identifies factors for consideration in every critical area of operations for an AT Reuse program.

Online Program Assessment Tool (IQ-ATR)

This online tool was developed to support use of the IQ-ATR. Users may assess a program by checking compliance with the Factors for Consideration. The tool generates a report of resources to improve those Indicators that were not fully met.

Webinar Archive

All webinars presented by the Pass It On Center through August 2013 are archived and freely available from the Webinar Archive.

Reuse Locations Database

Reuse programs create profiles for voluntary participation. Users can locate programs by location or type of equipment.

Virtual Tours of Reuse Programs

The Pass It On Center's You Tube channel hosts a collection of more than 100 videos filmed at reuse programs around the country. The segments include interviews with program leaders, interviews with reuse customers, narratives about the program, and details about specific areas of program operations.

APPENDIX II: CATADA DEVICE CLASSIFICATION SYSTEM

The following taxonomy of assistive technology devices is used by the state AT Act Programs when providing data for the Center for Assistive Technology Act Data Assistance (CATADA). There are other ways to classify and categorize devices (e.g., the 20 categories used by the Able Data database.

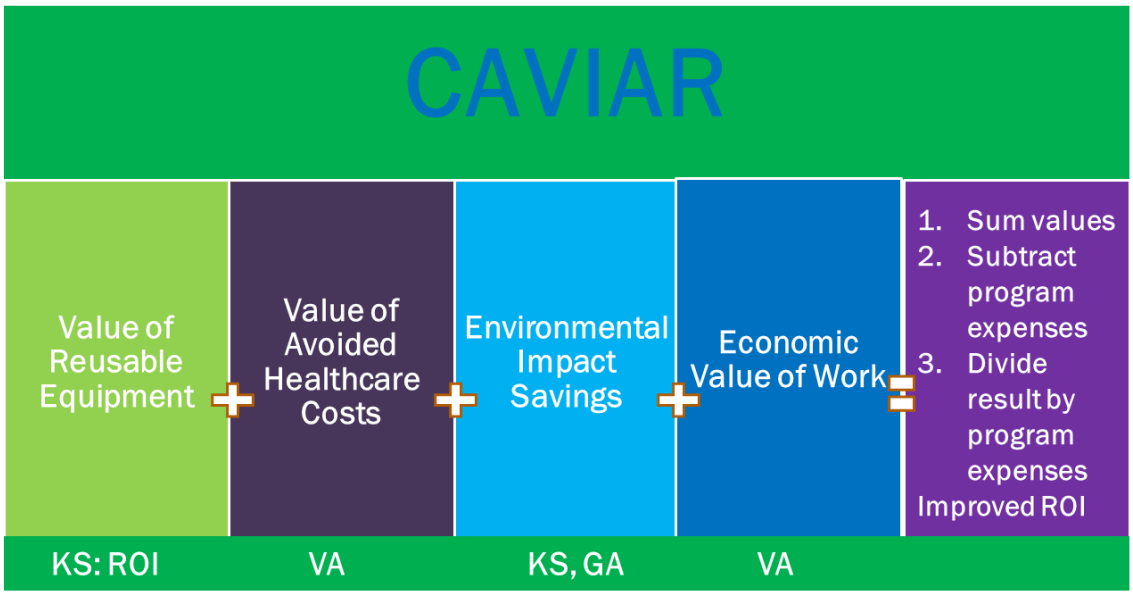
Devices are assigned to one of the following 10 categories for reporting reuse activity:

1. Speech communication
2. Vision
3. Hearing
4. Computers and related
5. Daily living
6. Learning, cognition, and developmental
7. Environmental adaptations
8. Mobility, seating, and positioning
9. Vehicle modification and transportation
10. Recreation, sports, and leisure

Many devices can fit into more than one category depending on how they are used by a consumer. Devices can most reliably be classified based on the functional need that is served by the “assistive” aspect of the device. For example, a computer that is outfitted with an external speech synthesizer and used as a communication device for a person who had a stroke would be classified as “speech communication”, not “computers and related”.

A component of a larger system should be classified according to the function or primary use of the larger system. For example, a mouth stick that is used to provide access to a communication system such as Pathfinder would be classified under Speech Communication. A mouth stick that is used to type papers would be classified under Computer Access. A mouth stick that is used generically as an aid to daily living would be classified as Daily Living.

APPENDIX III: CAVIAR

Proposed by the Pass It On Center as an alternative measure of the value of reuse, the Calculation of the Approximate Value of Investment in AT Reuse (CAVIAR) extends the computation of Return on Investment beyond the value of equipment to include the societal and economic impact of the availability of assistive technology when it is needed. This model builds on the work of the Kansas Equipment Exchange, The Foundation for Rehabilitation Equipment and Endowment (FREE) in Virginia, and the valuation of recycled end-of-life devices.

Proposed Calculation for Return on Investment of AT Reuse