KENTUCKY PRESCRIPTION DRUG PATIENT ASSISTANCE PROGRAM (KPAP)

FY2009 REPORT

From

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Summary of Findings

In its first 8 months of operation, KPAP generated $14.4 million in free prescriptions for low-income Kentuckians. An ongoing investment of $600,000 - $1 million per year could help as many as 1 million Kentuckians obtain $90 - $600 million of free prescription drugs per year, while measurably improving the health of the population.

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1 INTRODUCTION

Based on estimates developed by officials from the Access Branch of the Department for Public Health Services, there are approximately 1 million Kentuckians who, when serious illness strikes, may be unable to afford the prescription drugs prescribed by their physician. This estimate encompasses 604,000 uninsured individuals, 200,000 Medicare enrollees without prescription drug coverage and 239,400 employees working for employers whose medical benefit plans don't cover prescription drugs[1]. On average, these 1 million people are believed to have at least 14 prescriptions per year (In 2006, the Kentucky State Auditor's Office reported the average

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[1] 604,000 Uninsured; 200,000 Part D; 57% of firms offer insurance = 2,394,000 of population and assume a minimum of 10% of those don't offer prescription coverage = 239,400. Kaiser State Health Facts, http://www.statehealthfacts.org accessed 7/29/09. Of the 604,000 uninsured, 45.5%, or 275,000 are living in poverty, residing in households with household income less than 100% of the Federal Poverty Level. If diagnosed with medical conditions requiring treatment with prescription drugs, they cannot afford to purchase them, almost without regard to cost. Another 40.4%, or 243,700 of the uninsured Kentucky residents live in near poverty, residing in households with household income above 100% but less than 300% of the Federal Poverty Level. Virtually all of the 200,000 Medicare enrollees without prescription drug coverage and the 239,400 employees working for employers whose medical benefit plans don't cover prescription drugs are also likely to fall into this near poor category. While those in near poverty without medical benefit coverage for prescription drugs may be able to afford the purchase of some level of lower cost prescription drugs, the quantity and cost of prescription drugs that could be required for a severe medical condition would be unaffordable to them.

Kentuckian has 14.6 prescriptions per year versus the U. S. average of 10.6 per year[2]). Costs for prescription drugs for Kentuckians, on average, are higher than those of all but 4 other states (in 2008, an Express Scripts study found that Kentucky ranked in the top five (5) states in per capita spending on prescription medications[3]). When you combine this with CNN's report in 2007[4] that Kentucky ranked in the top ten (10) of poorest states for median incomes, it is no wonder Kentuckians are having a difficult time filling their prescriptions.

What this means is that when these one million low income Kentuckians need prescription drugs that are unaffordable to them, they are forced to forgo drug treatments prescribed by their physicians and consequently experience continuing ill health and increased rates of morbidity and mortality. Obviously, this is harmful to them, to their communities, and to Kentucky. Fortunately, there are steps that can be taken to address this problem.

Most prescription drugs that are unaffordable to these low income residents are available free or at low cost through assistance programs established by pharmaceutical manufacturers to support access to prescriptions for low-income and at-risk populations. However, identifying which pharmaceutical manufacturer sponsored "prescription drug assistance program" makes available each of the prescription drugs a patient may need and navigating the complex and demanding application process of each manufacturer's program can be a daunting task. The application process, the qualifications and the income and asset verification requirements vary substantially among the various manufacturers' programs, and may even vary between different classes of drugs from the same manufacturer. Steps in the process include identification of the pharmaceutical manufacturer that makes and/or distributes the drug, determination of whether the drug is currently covered, determining if the eligibility requirements are met, completing the complex application and obtaining copies of the required income and asset verification documents. These processes place a high and often unmanageable burden on the low income patient trying to obtain the drugs as well as the patient's physician, patient advocates and in some situations, the patient's pharmacist. Low income patients are also more likely to have a lower educational achievement level that hinders their ability to navigate the system. These factors often result in failure to obtain the free or low-cost drugs even when they are available and the patient meets the qualification requirements.

Recognizing the need to improve the capability of low income uninsured Kentucky residents to obtain the prescription drugs they need from these drug assistance programs, the 2008 Kentucky General Assembly enacted a provision in House Bill 406 (HB 406 (H)5(4)) that authorized the Cabinet for Health Services to establish the Kentucky Prescription Drug Patient Assistance Program and appropriated funds to do so. On October 31, 2008, the Governor adopted the Cabinet's program developed by the Department for Public Health Services and established the Kentucky Prescription Assistance Program (KPAP). The program, described in more detail in Section 3, has now been operational since June, 2009.[5]

This report presents the results of work conducted under a purchase order (Doc ID: PO2 728 0700013922 1) issued to the University of Louisville in July, 2008 to provide support to the Kentucky Prescription Drug Patient Assistance Program (KPAP). The report provides an assessment of the program from inception and start up through its

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[2] "Report From The State Auditor: Drug Reimportation Is A Viable Choice." September 28, 2004; Issued 2005/6. http://www.auditor.ky.gov Accessed 7/29/09.

[3] Geographic Variation Trends in Prescription Use: 2000 to 2006; Express Scripts, 2008.

[4] CNN.com; Accessed July 29, 2009.

[5] Due to the delays in software procurement (RFP) process, KPAP was not functional until May 2009 when the software was purchased. So while 2 organizers had been hired in late 2008, everything was still in planning stages until May 2009.

operational activities to date.   The assessment includes a cost benefit analysis weighing the costs of the program compared to its benefits for Kentucky and provides recommendations for the future. The report is detailed in several sections. Section 2 reviews the methodology used to develop the report. Section 3 reviews the key findings from the research. Section 4 discusses limitations of the research. Section 5 provides selected recommendations that could improve the KPAP program in 2010 and beyond.

2 METHODOLOGY

A multi-step methodology was used to develop the information provided in this report.

2.1 INTERACTIONS WITH KPAP PERSONNEL

Several telephone and/or face to face meetings or e-mail interactions were held with KPAP personnel including Chris Workman, community organizers and vendor representatives during the project period.

2.2 INFORMATION REVIEW

The following information sources were reviewed and considered:

- KPAP Website pages (http://chfs.ky.gov/dph/info/dpqi/ky+rx+drug+assistance+program.htm)

- Software vendor website pages (http://www.drugassistant.com/index.html)

- Software vendor documentation (provided by vendor)

- KPAP program documentation provided by Chris Workman, including House Bill 406 (HB 406 (H)5(4)).

2.3 MEETINGS WITH VENDOR

Three telephone meetings were conducted with the KPAP vendor, Drug Assistant, Inc. Participants included:

Brett Dennis, Director of Business Development

Richard Westlake, Manager of Applications Development

Ileana Batista, Project Manager

2.4 FLOW-CHARTING THE PROCESS

A process analysis was done, to evaluate the structure and processes used by used by pharmaceutical firms, states, counties, providers and community advocates to provide prescription drug assistance to people in need.

2.5 DEVELOPING THE METHODOLOGY

A series of meetings were held among the UofL project team, and with the vendor, to develop the proposed methodology for assessing KPAP costs and benefits to Kentucky.

2.6 OBTAINING DATA USING THE METHODOLOGY

Data were obtained from the Vendor using the methodology. The vendor was very helpful in pulling together the data needed.

3 FINDINGS

Section 3 presents the results of research done using the methodology described in Section 2.

3.1 KPAP STRUCTURE AND PROCESSES

This section provides a background analysis of Kentucky's prescription drug assistance program (KPAP) structure and processes. The purpose of this section is to help those who are unfamiliar with KPAP to better understand the underlying dynamics involved. The analysis is conducted using the tetradic network technique (TNT) for modeling complex organizational systems and networks[6]. Using TNT, Figure 1 shows KPAP as a four part organizational network consisting of Eligible Patients, Resource Providers, Drug Dispensers, and Connection Providers.

KPAP as an Organizational Network
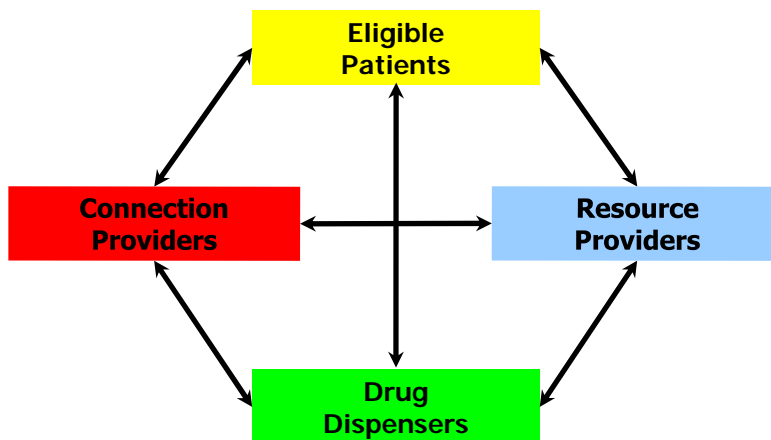

Figure 1

FIGURE 1

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[6] TNT models are open-content distributed through a Creative Commons Attribution 3.0 United States License. They are available for download and modification at http://sites.google.com/site/tntlanguage/.

Figure 2 shows KPAP as a county stakeholder network, with each county involved having a county stakeholder network.
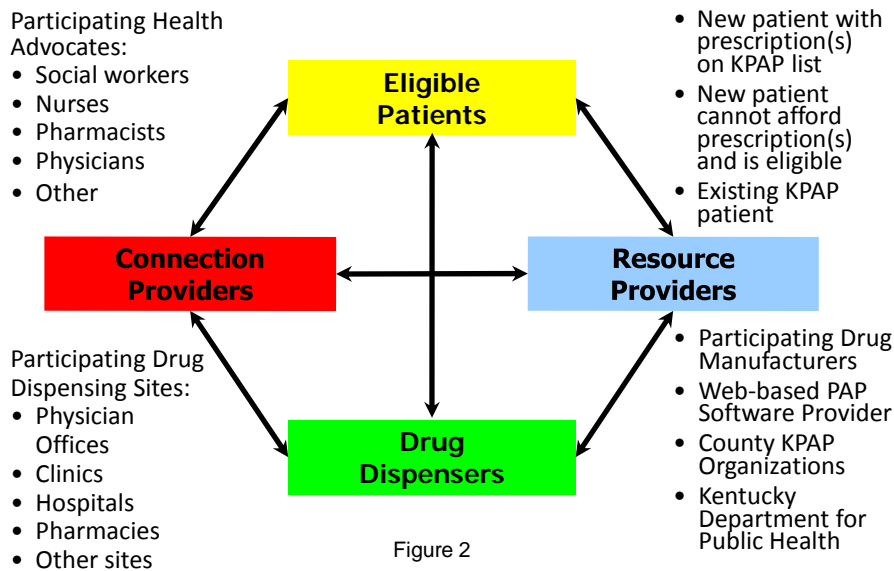
KPAP as a County Stakeholder Network

Participating Health Advocates:
- Social workers
- Nurses
- Pharmacists
- Physicians
- Other

Eligible Patients

- New patient with prescription(s) on KPAP list
- New patient cannot afford prescription(s) and is eligible
- Existing KPAP patient

Connection Providers

Resource Providers

Participating Drug Dispensing Sites:
- Physician Offices
- Clinics
- Hospitals
- Pharmacies
- Other sites

Drug Dispensers

- Participating Drug Manufacturers
- Web-based PAP Software Provider
- County KPAP Organizations
- Kentucky Department for Public Health

Figure 2

FIGURE 2

As shown:

1. **Eligible Patients** are those new patients or existing KPAP patients who qualify or have been qualified based on an income assessment and have a prescription(s) for which there is(are) participating drug manufacture(s) The purpose or context of KPAP is to assist eligible individuals in matching their prescription drug needs with a source or sources of free or reduced price prescription drugs and a participating health profession connection provider to not only write the needed drug order prescription(s) but also to create and submit to the appropriate drug manufacturer(s), the specific drug manufacturer(s) request application to obtain the drug(s) for the eligible patient(s).

2. **Resource Providers** are comprised of participating drug manufacturers, a web-based PAP software vendor that provides and maintains a demographic patient database, a statewide physician database, a searchable drug database with participating drug manufacture(s) forms and has the capability of auto-filling and populating the appropriate PAP submission requests from the databases (patient, physician, drug, and drug manufacturer) that is(are) sent to the participating drug manufacturers to obtain the free and/or reduced price prescription drug(s). Other resource providers are the Kentucky

Department for Public Health and a County KPAP organization that already exists or needs to be created.

3. **Drug Dispensers** are those KPAP participating drug dispensing sites including physician offices, clinics, hospitals, pharmacies and other sites within a county that have agreed to dispense free or reduced price prescription drugs that have been obtained from the participating drug manufacturers for the eligible patients who have drug prescriptions that need to be filled at no or reduced fulfillment and dispensing costs. Note: depending on the pharmaceutical manufacturer program, some prescription drugs may be shipped directly to the patient.

4. **Connection Providers** are members of community organizations and partner networks which support the KPAP County stakeholder network and refer patients. They may include social workers, nurses, physician assistants, pharmacists and physicians. Prescribers do not usually have access to the PAP software and do not complete the computer generated forms. Typically they just sign the forms after the patient has been referred to a KPAP site. It should be noted that any Connection Provider may make a referral to a KPAP site (including patient self referrals). The KPAP County stakeholder network which includes partners consisting of Eligible Patients, Resource Providers, Drug Dispensers, and Connection Providers is the force that holds this network together. This County inter-organizational network of stakeholders is the strength of KPAP.

Figure 3. shows KPAP as a Demand Flow Process.
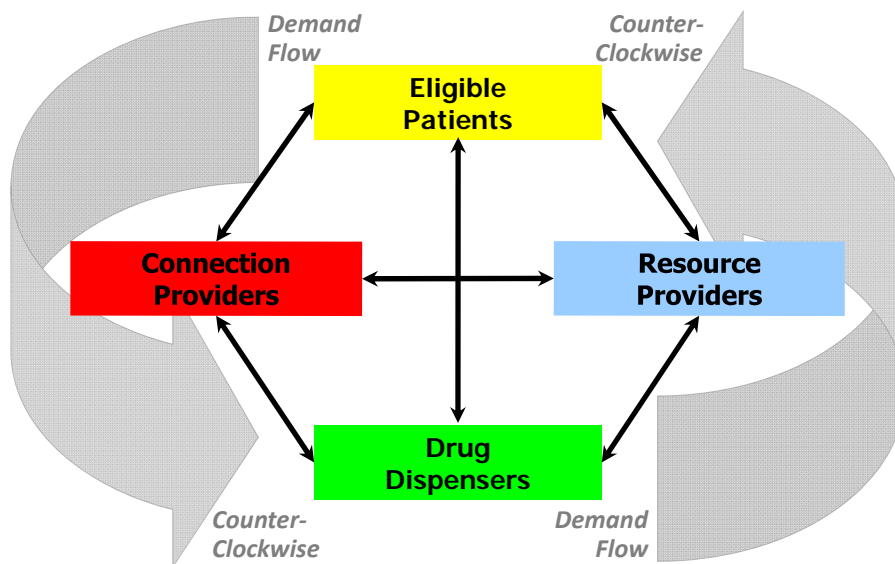
KPAP as a Demand Flow Process

FIGURE 3

Demand Flow is counter-clockwise with the demand starting with an individual who needs a drug and does not have health insurance coverage (drug pharmacy benefit) or enough income to obtain the required drug. An

individual or patient's income is assessed in order to determine eligibility for KPAP assistance by a participating KPAP health advocate connection provider who not only may write the drug prescription(s) but also completes the application form(s) that is(are) submitted to the participating PAP drug manufacturer(s). This information processing capability is a resource provided by a web-based PAP software vendor application. The requested drug(s) is(are) shipped to KPAP participating drug dispenser sites for filling and dispensing to eligible patients, or directly to the patient.

Figure 4. shows KPAP as a Supply Flow Process.
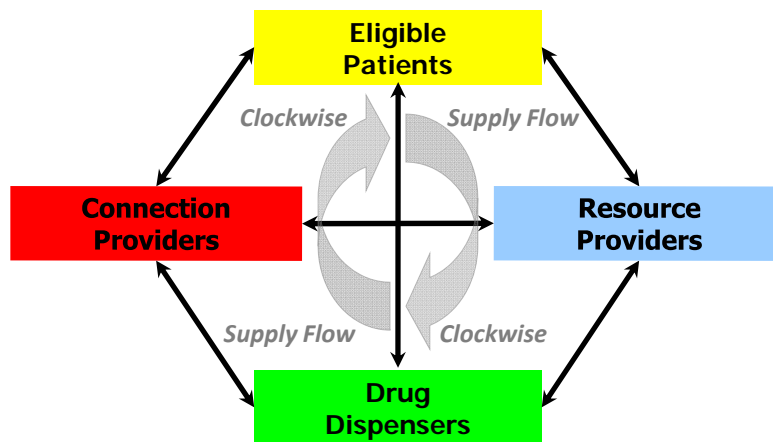
KPAP as a Supply Flow Process

FIGURE 4

Supply Flow is clockwise with the flow starting with Eligible Patients, those individuals who need a drug and do not have health insurance coverage (i.e., a drug pharmacy benefit) or enough income to obtain the required drug. The supply flow comes from the Resource Providers, including the source of the free or reduced price drug(s) which are from the participating drug manufacturer(s). Another Resource Provider is a PAP software vendor with an application that consists of all the databases (patient demographics, physicians, available free and reduced price drugs, and drug manufacturers who provide them including the required forms for each of the manufacturers to obtain the drug(s). Resource Providers also include a Kentucky County PAP organization as either a new organization or functional part of an existing community or county health assistance type organization. This County PAP organization is a source and coordinator for volunteer PAP workers that are needed to staff this effort at the local community level. Supply flow next involves the Drug Dispensers. Depending on the community, there may be one or more participating free or reduced price drug dispensing sites for Eligible Patients to go to pick up their filled prescriptions. At the participating Drug Dispenser sites the health professional Connection Providers interact with individuals to assess their eligibility for KPAP, and if eligible write prescriptions and complete and send applications for the free and reduced priced drugs directly to the participating drug manufacturers.

Figure 5. shows combined KPAP Demand & Supply Flow Processes

KPAP Demand & Supply Flow Processes

FIGURE 5

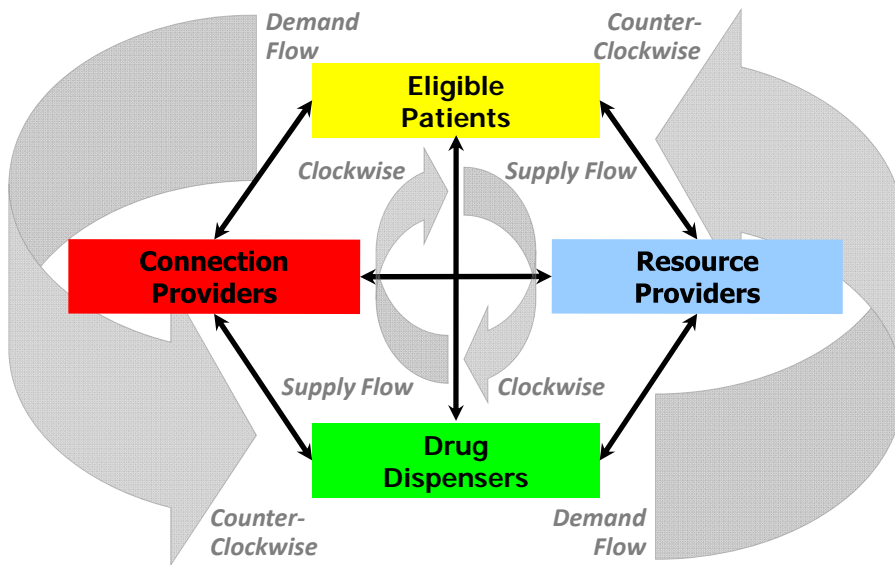Figure 5 is a composite of Figure 3. KPAP as a Demand Flow Process, and Figure 4. KPAP as a Supply Flow Process.

Figure 6. shows KPAP as a County Collaborative Network

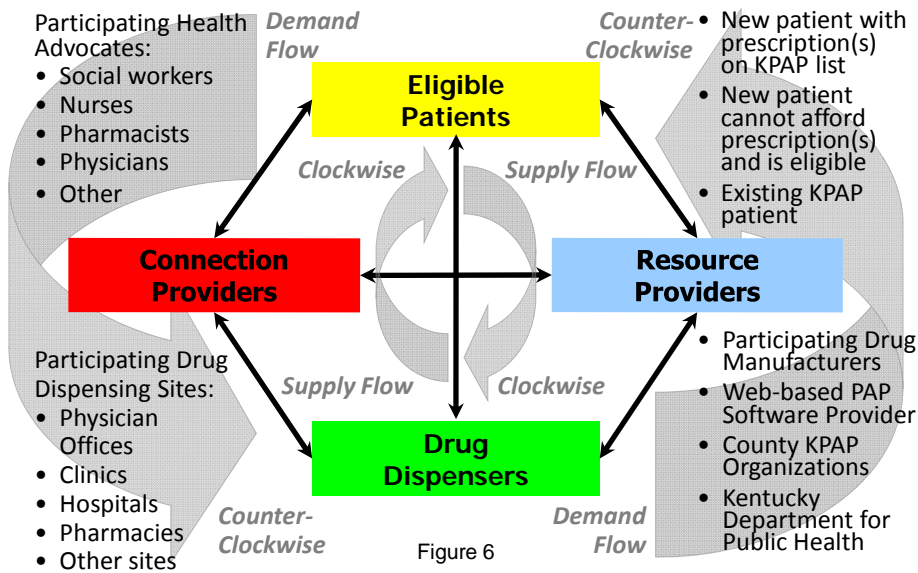# KPAP as a County Collaborative Network

Figure 6

FIGURE 6

Figure 6. is a composite or overlay of Figures 1. KPAP as an Organizational Network, 2. KPAP as a County Stakeholder Network, and 5. KPAP Demand & Supply Flow Processes.

Figure 7. shows KPAP as a Statewide Network of County Collaborative Networks.

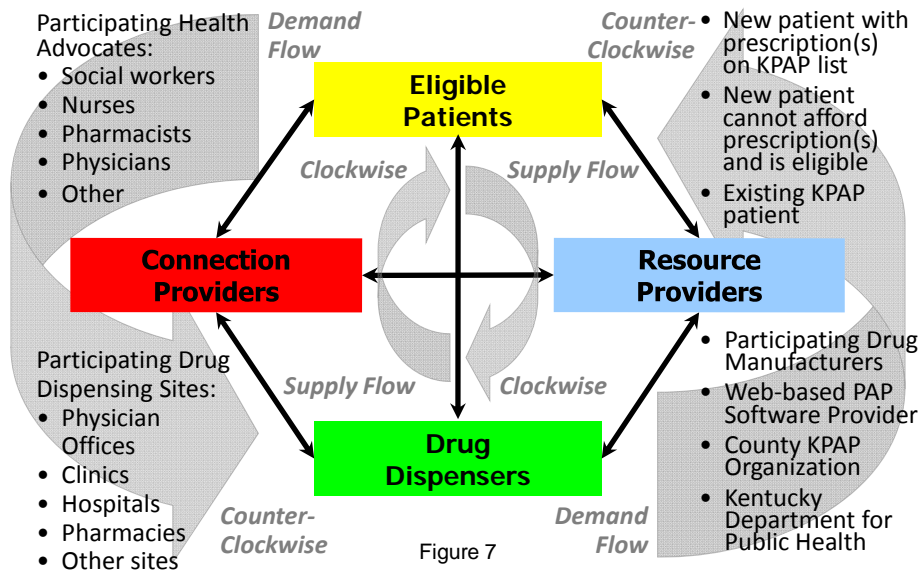# KPAP as a Statewide Network of County Collaborative Networks

Participating Health Advocates:
• Social workers
• Nurses
• Pharmacists
• Physicians
• Other

Demand Flow

Eligible Patients

Counter-Clockwise

• New patient with prescription(s) on KPAP list
• New patient cannot afford prescription(s) and is eligible
• Existing KPAP patient

Clockwise

Supply Flow

Connection Providers

Resource Providers

Participating Drug Dispensing Sites:
• Physician Offices
• Clinics
• Hospitals
• Pharmacies
• Other sites

Supply Flow

Clockwise

Drug Dispensers

• Participating Drug Manufacturers
• Web-based PAP Software Provider
• County KPAP Organization
• Kentucky Department for Public Health

Counter-Clockwise

Demand Flow

Figure 7

FIGURE 7

There is really no difference between Figures 6 and 7 except ones point of view or perspective. From a County perspective this type of network requires collaboration of all the stakeholders in the community or at a county level. The community organizing model is depicted as a four part model with Eligible Patients, Resource Providers, Drug Dispensers, and Connection Providers. Within these four categories of the KPAP organizational network there are stakeholders and these stakeholders are both involved in demand and supply flow processes to make this endeavor, the Prescription Assistance Program (PAP), operate successfully. From a state perspective, KPAP is a state-wide network of county collaborative networks. For some counties or communities most if not all of the resources can be provided with little or no help from the state. In other counties or communities with fewer resources there will be a need for help from the Kentucky Department for Public Health to support the county or community organizing effort to form a PAP. Any model or framework for building relationships and collaborative capacity at a state, county and/or community-wide level must be simple to remember and use to support the understanding of the complexity and collective action that contributes to making this important effort successful.

The analysis shows that KPAP is a highly collaborative process involving a variety of parties interacting at state and county levels.

3.2   THE KPAP PROGRAM

The Department for Public Health implemented the KPAP program using a community organizing model focused on each of Kentucky's 120 counties. Through the use of Community Organizers to empower and enable local stakeholders in the community to organize themselves and develop a volunteer network to staff the program, the program is able to minimize costs and increase the potential for the local program to achieve long term viability.

By spending its limited resources to provide these local KPAP organizations with the best prescription assistance program application and tracking software available and the training needed to use it, KPAP provides the opportunity to grow a statewide program with the potential to serve the entire 1 million target population.

Currently KPAP has 3 Community Organizers on staff, each assigned 40 of Kentucky's counties. The initial approach is to organize at least one community in each county to become a local KPAP program and recruit sufficient volunteers to serve the population that the local KPAP organization determines. In addition to organizing local stakeholders to form a local KPAP program, the County Organizers are responsible for getting the volunteer workers access to the software and providing technical assistance as requested.

In counties with small populations, a single local county KPAP program may be sufficient to serve all eligible residents in the county while in large population counties it may require multiple local programs. In some cases, the organized stakeholders may include one or more volunteer organization that provide county wide reach in providing services. For example, in Jefferson County with the largest county population in the state, the area ministries has become an engaged stakeholder and provides county wide reach.

In many cases there are organizations in a community already providing resources to assist patients in accessing pharmaceutical manufacturers' patient assistance programs, in which case the KPAP program can partner with them and provide them additional resources, particularly the sophisticated KPAP application and tracking software. For example, in Jefferson County there are two Federally Qualified Health Centers and the University of Louisville clinics and hospital that provide assistance to their patients in accessing pharmaceutical manufacturers' patient assistance programs, but currently pay for the use of their software. Kentucky's KPAP program provides them access to the state sponsored software at no cost to be able to add them to the Jefferson County KPAP county wide network.

The program was allocated $400,000 for Kentucky fiscal year 2008-2009, and $600,000 for Kentucky fiscal year 2009-10. Major expenditures are for staff, including the program manager and community organizers, and for software which is mainly the cost of 231 concurrent licenses, supporting up to 924 software users.

KPAP 2010 Budget Summary	
Staff	**$334,708.00**
Statewide PAP Assistance via KPAP	**$17,000.00**
Software	**$235,300.00**
Technology	**$8,322.30**
Supplies	**$4,669.70**
Total	**$600,000.00**

3.3   KPAP VOLUNTEER ORGANIZATIONS (LICENSEES)

As described in section 3.2, the KPAP program uses a community organizing model to develop local community KPAP programs with the initial goal of establishing at least one in each of Kentucky's 120 counties. The organizing process focuses on enlisting one or more lead organization in each county to help organize the stakeholders and recruit a volunteer network.

3.4   KENTUCKY TARGET POPULATION

The target population for the KPAP program is approximately 1 million low-income Kentuckians. These include 604,000 Uninsured; 200,000 low income Medicare recipients and an estimated 239,400 low income employees. Of the 604,000 uninsured, 45.5%, or 275,000 are living in poverty, residing in households with household income less than 100% of the Federal Poverty Level. If diagnosed with medical conditions requiring treatment with prescription drugs, they cannot afford to purchase them, almost without regard to cost. Another 40.4%, or 243,700 of the uninsured Kentucky residents live in near poverty, residing in households with household income above 100% but less than 300% of the Federal Poverty Level.   Virtually all of the 200,000 Medicare enrollees without prescription drug coverage and the 239,400 employees working for employers whose medical benefit plans don't cover prescription drugs are also likely to fall into this near poor category. While those in near poverty without medical benefit coverage for prescription drugs may be able to afford the purchase of some level of lower cost prescription drugs, the quantity and cost of prescription drugs that could be required for a severe medical condition would be unaffordable to them.

3.5   KPAP COMMUNITY ORGANIZERS

The KPAP program currently has three full time KPAP community organizers working to develop community advocates at the county levels to support these patients. The counties served, by region, are shown in Appendix 1.

3.6   VENDOR ORGANIZATION, TECHNOLOGY AND DATA AVAILABILITY

Kentucky's KPAP vendor, Drug Assistant, LLC. (http://www.drugassistant.com) provided the following information about their organization, technology and data availability.

3.6.1   ORGANIZATIONAL BACKGROUND

The company is a privately held for-profit limited liability corporation registered in Texas.

3.6.2   TECHNOLOGY

The vendor's technology is provided through an application service provider model – accessed by users through the world wide web. The technology is licensed using the following organizational structure.

1. Organizational Licensees (e.g. KPAP Accounts)

2. Individually Licensed Users: (Users working at a KPAP account)

3. Advocates: (individuals who refer patients and support the process. Advocates may be users).

4. Active Users – users actively using the system

The system provides the following general capabilities:

1. Patient registration, which includes gathering contact, demographic, medical and financial information about the patient. The information is entered once, then may be used to apply for many drugs from many manufacturers.

2. Entry of the patient's prescriptions and identification of those drugs that are available on assistance programs. Upon entry of the prescription information, the filled in application forms are automatically generated.

The technology supports 12 steps in the process of obtaining prescription drugs for patients. As shown in a set-up screen the steps are:

1. Form to patient

2. Form from patient

3. Form to doctor

4. Forms from doctor

5. Forms to manufacturer

6. Drugs from manufacturer

7. Notify the patient

8. Drugs dispensed

9. Renewal

10. Sending forms to Manufacturer

11. Tracking when drugs are due

12. Tracking patient renewal

A number of additional characteristics of the vendor's software and technology are worth noting.

The vendor technology supports distributed networks. For example, they can support a church based program where patient, doctor and pharmacist are not all physically located in the same facility.

The software does not require drugs to go to pharmacists. Drugs can be distributed through non-pharmacists, or even mailed directly to the patient.
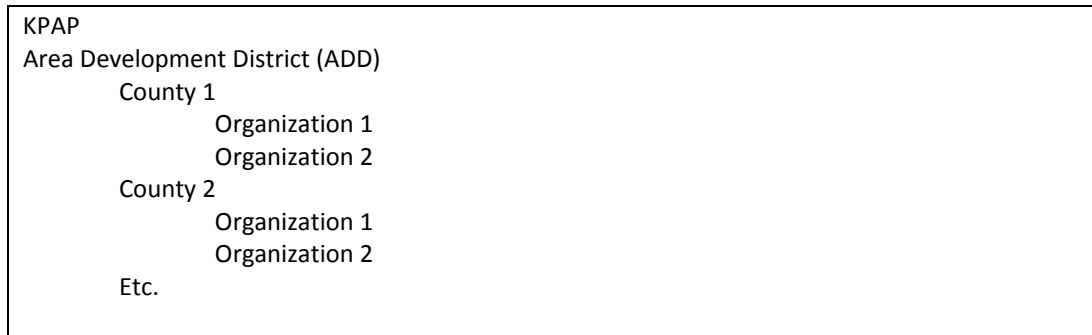
KPAP advocates (who work with patients) are generally responsible for closing the loop to ensure that drugs ordered for patients are received. In some cases, patients can and do act as their own advocate. Two reports are available to help advocates or patients verify that drugs have been delivered to patients and track problems.

1. Exceptions – drugs not back from manufacturer

2.   Receipt of drug overdue notice.

Even so, the loop is not always closed.   Each program needs to develop policies and procedures for managing advocates…and closing the loop.   Research on how to manage advocates that don't close the loop in the process could be helpful.

The Kentucky KPAP software is set-up to support tracking by region, county and organization, as follows:

```
KPAP
Area Development District (ADD)
        County 1
                Organization 1
                Organization 2
        County 2
                Organization 1
                Organization 2
        Etc.
```

Reports can be generated by these categories.

Individual patient IDs are assigned for each patient – by location. However, a given patient could have multiple IDs if they go to multiple organizational advocates. This is because patient IDs are anchored to the organizational account.   A patient ID matching algorithm uses SS#, plus address, plus last name. Patient medication information is not shared from one organizational account to another account because of privacy concerns.   Patient demographic information can be imported from one account to another with originating agency permission, but clinical history cannot be imported.

Each patient has required information they provide.   This includes a last name and address.   SS# is not required (they legally cannot require it). They are building a "warning" alert…if no SS# is being entered.

A patient's financial information profile is optional.   Some manufacturers require that certain fields be completed in order to fill the prescription.   Financial information captured includes assets, income and spouse income. Some manufacturers require copies of income tax statements or bank statements.   Such documentation is not scanned. It is kept by the advocate in paper form, and copied and sent in with the application.   The software generates the application on paper, which is then mailed into the appropriate manufacturer by the advocate.

The software has the following tabs to support different types of users:

DOCTOR DETAILS – Physician names and information are typically already in the system.   30,000 prescribers were loaded into the software at startup so that each account does not need to maintain their own Physician information. Physician, ARNP, and Dental data (all prescribers) are uploaded monthly into the system. Any missing data (new physician, etc.) may be uploaded by contacting the KPAP central office IT helpdesk.

DRUG DETAILS – ALL drugs known to be offered on prescription assistance programs are pre-loaded. This list is updated daily.

PATIENT DETAILS - E.g. patient profile and auto-filled application.

ORDERS – where a new order is entered (e.g., an application to order the drug from the manufacturer).

The software links to a national clearinghouse for information about availability and costs of drugs. This is essentially a specialized PAP formulary published by a retired doctor doing it as a pro-bono service. Manufacturers take PAP drugs off and on the program frequently, so this service attempts to keep the formulary up to date.

The system also has a link to Medline (official government source of all drugs) – to see info about the drugs.

The system currently does not incorporate RxNorm or any other drug terminology standards. This could be a potential limitation with respect to future integration with electronic prescribing and electronic health records.

Patients may sign one of two releases allowing the KPAP site to act as their signatory to expedite the PAP process:

1. Consent – limited power of attorney for advocate o allow the advocate to sign the assistance applications for the patient, so that the paperwork does not have to be sent to the patient again every 90 days.

2. Release – power to release information to advocate and manufacturer for purposes of drug assistant service.

The system supports printing applications, and includes bar codes and order numbers to simplify scanning and processing.

The system has a logbook, which provides an audit trail for notes and other information about patients.

The system can export most data into XLS format, and can export to SmartTalk (a RoboDialer) for providing reminders to patients.

Users and organizations have a fairly granular ability to control data entry and data access by different types of users.

The system tracks average wholesale price (AWP). Most drugs are purchased by pharmacies at less than AWP, however, AWP ends up being an approximate representation of what a patient would pay for a drug at retail prices. Therefore, the overall AWP value is approximately the out of pocket money that would have been required if patients had purchased the drugs themselves without insurance. In other words, it is about how much KY citizens saved over buying the drugs (had they been able to afford them).

In general, the system appears to be well designed for its purpose, and represents several generations of development reflecting significant input from users.

3.7   METHODOLOGY FOR DETERMINING KPAP VALUE TO KENTUCKY

Based on the analysis of the KPAP network, and the vendor system's ability to produce data, the following methodology was developed for measuring the costs and outcome value of the KPAP service.

3.7.1   COST MEASURES

Costs should be measured using the current approach, namely calculation of the direct costs for the state to run the program. Cost budgets should be revisited, periodically, to assure that sufficient community organizers, and software licenses are in place to meet the needs of the 1 million Kentuckians to be served.

3.7.2   OUTCOME MEASURES

Outcomes should be measured using the methodology illustrated in Table 1.

TABLE 1: KPAP OUTCOME MEASUREMENT APPROACH

Name	*Period*	*Source*	*Assumption*
Number of Orders Filed	By Month and Year	Vendor system	95% or more of orders filed are filled.*
AWP per Order	By Month and Year	Vendor system	Economic benefit is most typically calculated using average wholesale price (AWP).
Number of Orders Filed per Patient	By Month and Year	Vendor system	Many patients will require more than one prescription.
Number Orders Filled	By Month and Year	Future analysis	Future research can be done to determine the number and percentage of orders actually filled

* Based on estimates provided by the vendor.

The primary measure used is number of orders submitted into the KPAP system by users. Since the orders include user ID, and average wholesale price (AWP), it is possible to calculate average AWP per script, and number of orders filed per patient. It is not possible, at present, to calculate the percent of orders filed which are subsequently not filled. However, evidence from the vendor, and an explanation of how the system works, leads us to believe that a 95% fill rate is a reasonable estimate. Future research could establish a more accurate estimate of the fill rate. The simplest method may be to do a statistical analysis of a random sample of orders entered during a given period of time.

3.8   CURRENT RETURNS FOR KENTUCKY

Using this methodology, the returns for Kentucky for program activity from program inception in May 15, 2009 through January 12, 2010 can be calculated. Table 2 and figures 8-10 show selected results. In summary, 163 organizations were set-up and trained. An estimated 4179 unique patients were served. Order totals include two sources. A total of 14,501 orders were entered through the standard KPAP software, with a value to Kentuckians of $14,414,677 (AWP). The average order size was $636. The average patient received $2,207 in assistance.   An additional $5,184,960 in AWP value was added through the Kentucky Homeplace part of the KPAP program. Thus, the total AWP value of orders through January 12, 2010 is $14,414,677.

TABLE 2: OVERALL RESULTS FROM PROGRAM START THROUGH JANUARY 12, 2010

KPAP Overall Results – Normal Program	
Total KPAP Orders Entered	**14,501**
AWP Value of Orders through Jan 12, 2010	**$9,229,717**
Average AWP value	**$636**
# Unique Patients	**4179***
Average orders per patient	**3.47***
Average value per patient	**$2,207**
Additional AWP Value from Kentucky Homeplace**	**$ 5,184,960**
Total AWP Value of Orders through January 12, 2010	**$14,414,677**

*Estimated based on data through Nov 2009.   **Data provided by Chris Workman since Kentucky Homeplace orders are not yet integrated into the KPAP reporting system. Data may vary slightly from prior estimates of sales through 1-12-10, depending on when the report is run. This is because advocates sometimes make retroactive adjustments to orders already in the system, or backdate new orders they enter.*

3.8.1   KPAP ORDERS PER MONTH

As shown in Figure 8, orders by month have grown steadily since program start in May, 2009. The orders exceeded 2500 in December. Since the 4170 unique patients served to date represents just a small fraction of the total population of Kentuckians who could use this program, we anticipate the overall orders per month could continue to climb at a rapidly increasing pace until a higher percentage of the eligible population is reached.
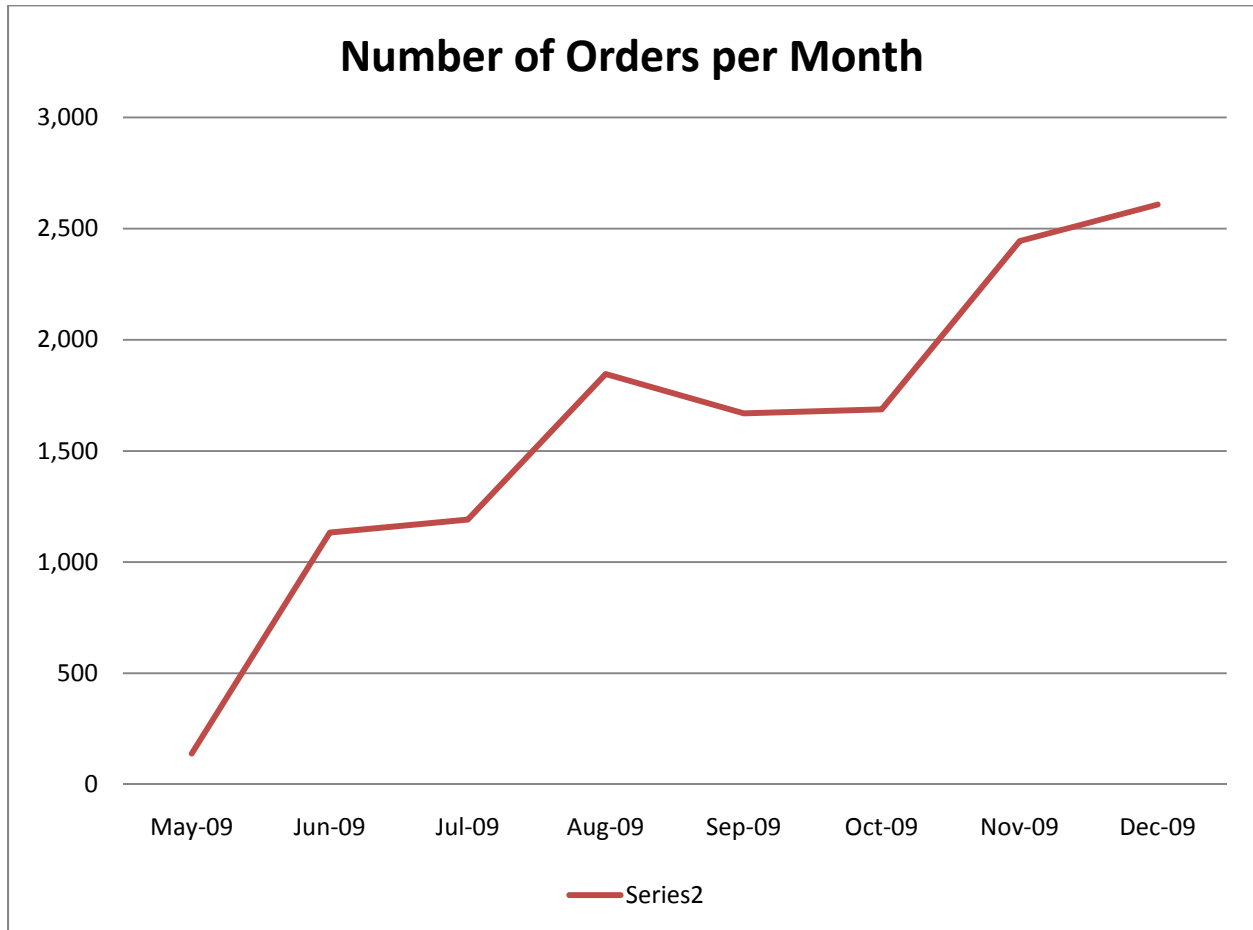

FIGURE 8

3.8.2   AWP Value per Month

Figure 9 shows that total AWP value has grown rapidly since the program start. We anticipate that these numbers will continue to climb as market penetration continues to grow for the target population. The achievement of over $2 million in AWP in November, 2009 is a significant milestone. With $1,350,646 in the system for January, as of January 12, 2010, it appears probably that the program will well exceed $2 million in January.

FIGURE 9

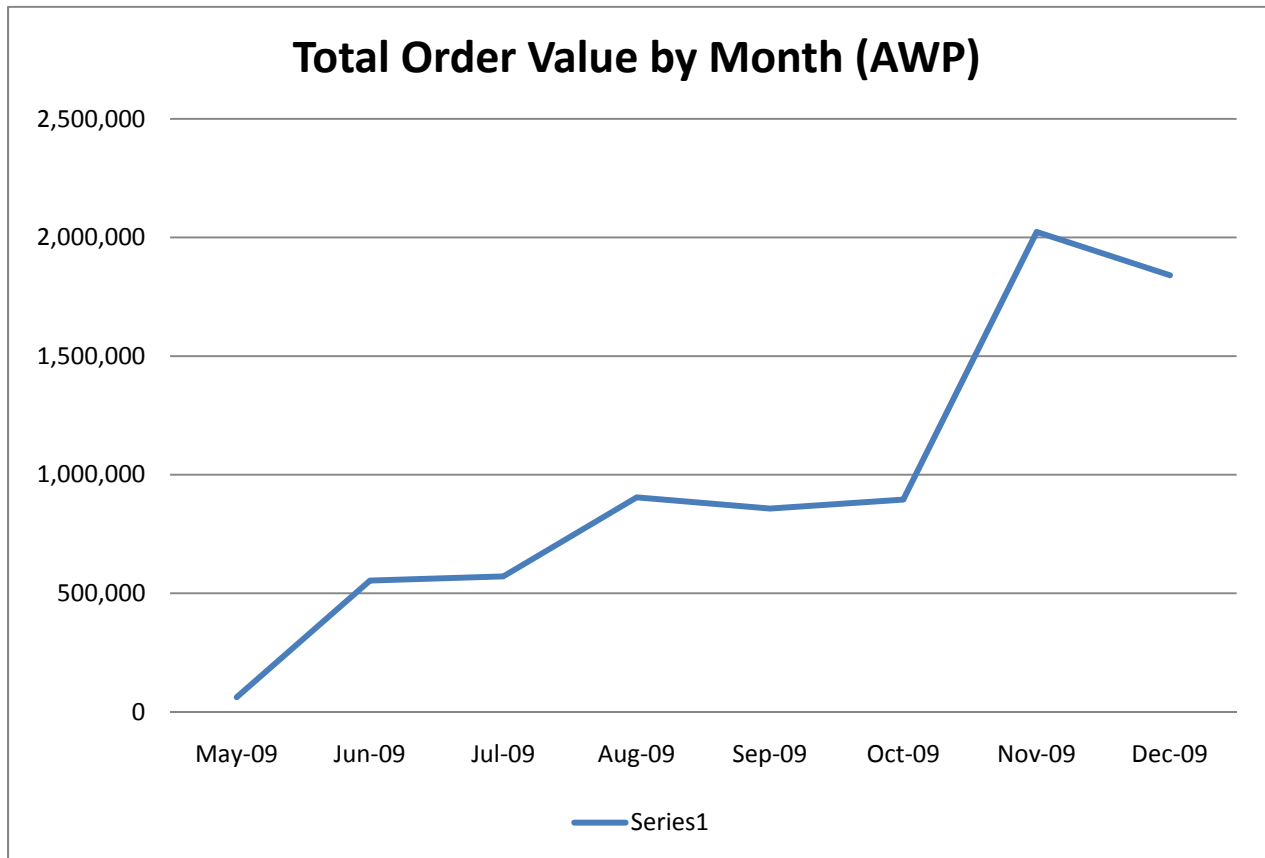### 3.8.3   AVERAGE ORDER SIZE

Figure 10 shows average order size (AWP) by month. AWP averages were in the range of $450 - $525 per order through October, 2009, and then increased to the $600 – 800 range in November and December, 2009. This indicates that increased numbers of potentially high AWP value orders are being entered into the system.
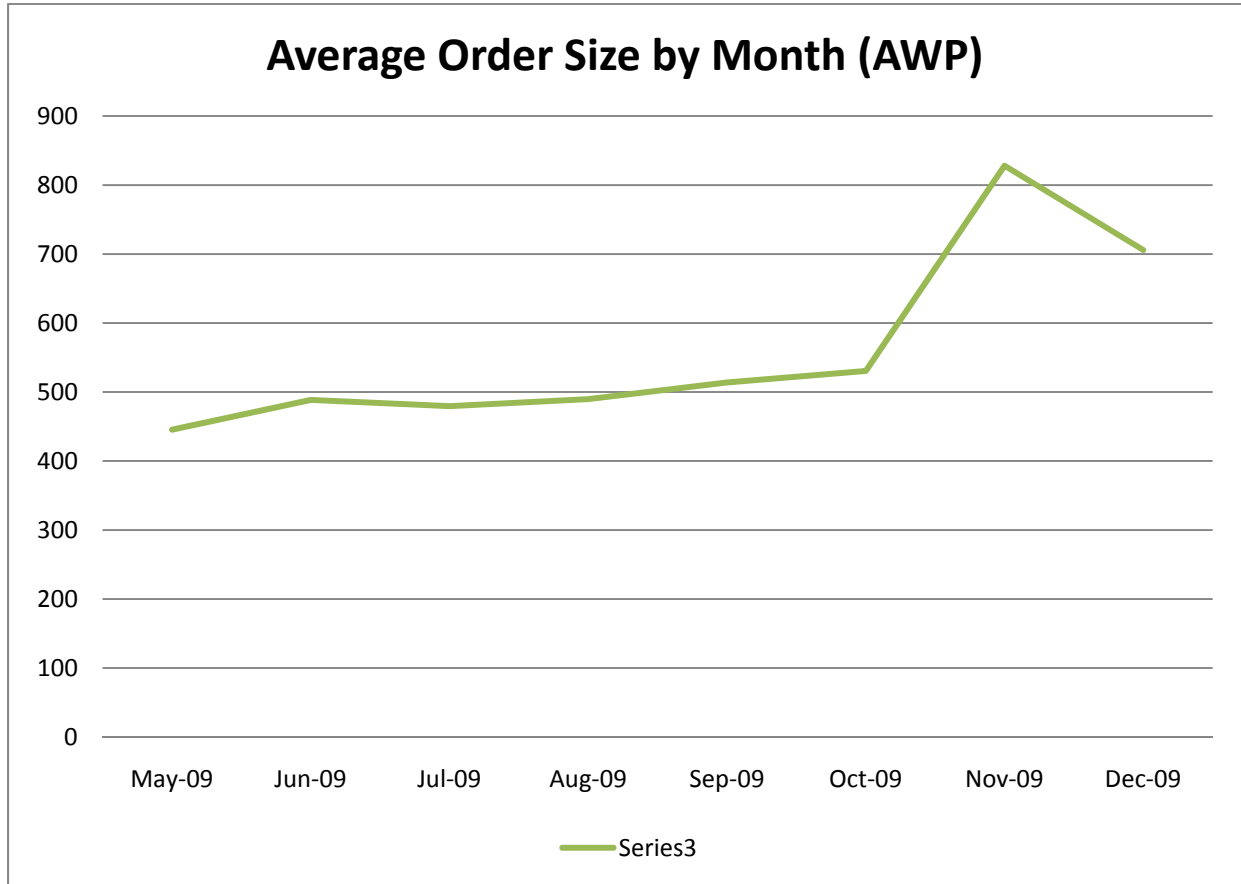

Average Order Size by Month (AWP)

FIGURE 10

3.9 RETURNS FOR OTHER STATES

Other states have programs which are also using the KPAP vendor's technology and have generated comparable results based on data provided by the vendor. For example, for a program in Idaho, the average patient receives 3.4 drugs per year, and similarly, in Milwaukee, Wisconsin patients receive 1.73 drugs per year. Similarly, the average AWP value per application is $679.27 in Idaho, and $521.41 in Wisconsin.   These two programs are also steadily growing, as additional community advocates are added to support their programs.

3.10 POTENTIAL VALUE OF KPAP FOR KENTUCKY

Based on the data provided, and based on national estimates of the number of people with chronic illness in the US[7], we believe that over time, Kentucky's KPAP program could generate prescriptions for many more Kentuckians who are prescribed medications which they cannot afford to fill. While it would require additional research to quantify the exact number of addressable prescriptions issued to eligible populations in Kentucky, it is possible to develop some reasonable ranges of potential value that Kentuckians, and Kentucky, could obtain through this program. Table 3 provides a preliminary estimate of possible value that the program could deliver. As shown, the program could, under conservative assumptions, generate $90 million in annual value, and in a best case scenario, could generate as much as $600 million in benefits for Kentucky citizens.

TABLE 3: POTENTIAL VALUE OF KPAP FOR KENTUCKY (ESTIMATE)

	Low	Mid	High
Total Eligible Population in KY	1,000,000	1,000,000	1,000,000
% Receiving KPAP Eligible Prescriptions	15%	20%	25%
# Eligible for KPAP Assistance	150,000	200,000	250,000
Average # Prescriptions per Patient	2	3	4
Average AWP per script	$300	$450	$600
Potential Value for Kentucky	$90,000,000	$270,000,000	$600,000,000

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[7] As quoted in a 2004 study by the Robert Woods Johnson Foundation: "The current U.S. health care system is not structured to adequately meet the needs of the growing number of people with chronic conditions. In 2004, almost half of all Americans, or 133 million people, live with a chronic condition. That number is projected to reach 157 million by 2010. People with chronic conditions account for 83 percent of health care spending and those with five or more chronic conditions have an average of almost fifteen physician visits and fill over 50 prescriptions in a year. This chartbook provides an overview of chronic health conditions in the United States and the impact of these conditions on individuals, their caregivers and the U.S. health care system. It outlines demographic information, prevalence rates and projections for people with chronic conditions, and details spending and utilization for people with multiple chronic conditions and activity limitations. Data sources for the chartbook include the 2001 Medical Expenditure Panel Survey (MEPS), the 2001 Medicare Standard Analytic File, three commissioned opinion surveys, and the 1996 Survey of Income and Program Participation (SIPP). The data presented suggest that care provided in the current acute, episodic model is not cost-effective and can lead to poor outcomes. In order to make clinical treatment more effective, services need to be more readily available and coordinated with emphasis on early diagnosis and interventions that maintain health status and minimize episodes of acute illness. This chartbook, an update of the 2002 "Chronic Conditions: Making the Case for Ongoing Care," was prepared by Partnership for Solutions, a national program funded by the Robert Wood Johnson Foundation and based at Johns Hopkins University. One important limitation of the data analysis is that it does not always capture information on people whose chronic condition is a disability or functional limitation without an underlying chronic illness." (http://www.rwjf.org/pr/product.jsp?id=14685) accessed 1-10-2010.

NOTE: The estimates in Table 3 were calculated as follows. The 1,000,000 population is estimated based on KPAP estimates of market size as previously noted. The % eligible for KPAP is estimated based on a Robert Wood Johnson Foundation study noted in footnotes. Average number of prescriptions per patient, and average AWP per order are estimated based on actual results for Kentucky in the first year of the program. While we believe these estimates are conservative, more study would be required to determine actual rates of chronic illness and average numbers of KPAP eligible prescriptions. We believe it is likely that since Kentucky's population is sicker than the average US population, and the average number of prescription per Kentuckian are higher than national averages, actual numbers for Kentucky are likely to be higher than these estimates.

3.11 INVESTMENTS TO ACHIEVE THESE RETURNS

What investments are required to achieve these potential returns? The results show that the KPAP program, with its budget of $600,000, and using three community organizers, was able to bring on 163 organizational advocates, who served at least 4179 patients, in the first year of the program. The rapid early growth augurs well for continued growth towards the potential benefits estimated in Table 3. We believe continuation of the program at existing budget levels will support continued growth of the program.

However, a simple analysis of the program resources, as shown in Table 4, suggests that two additional community organizers would help maximize Kentucky's ability to obtain the benefits listed. Based on current program activity levels, it is estimated that, on average, 2 community organizations supporting KPAP will be needed for every 25,000 person area in Kentucky. For example, it may take only one organization to serve a small county of a few thousand people, while 80 or more organizations may be required to reach populations in need in a metropolitan area like Louisville. On average, each 25,000 person area will benefit from having 3-4 (3.5) active community organizations engaged. Based on current experience of KPAP community organizers, it appears that, on average, each of these advocate organizations will need 6 visits per year from a community organizer, along with telephone support. We estimate that community organizers will be able to handle approximately 675 site visits per year, assuming they do an average of 3 visits per workday. This translates into a need for 5 community organizers to fully meet the need of Kentuckians.

TABLE 4

# Community Organizers Needed	
Kentucky Population	**4,200,000**
# 25,000 Person Areas (e.g. county or city area)	**168**
# community organizations needed per area	**3.5**
Total # community organizations needed	**588**
# visits needed per year per organization	**6**
# organizational visits needed	**3528**
# workdays per year per organizer (45 weeks, 5 days)	**225**
Avg # visits per workday	**3**
# Visits per year per organizer	**675**
# Organizers needed	**5.2**

Our analysis suggests that in addition to seeking additional funding for community organizers, it may also be prudent to budget for the addition of software licenses for the program. Currently, the program is purchasing 231

concurrent organizational licenses, supporting up to 924 users. To fully support the growth, 588 licenses will eventually be needed. In summary, it appears that for approximately $1 million per year, additional community organizers and software licenses could be purchased, allowing the program to be operated to maximize benefit for Kentuckians over time.

In summary, with an investment of $1 million per year potential return for Kentucky could grow to $90 million per year or higher.

3.12 OTHER STRATEGIC CONSIDERATIONS

There are some additional strategic considerations that could affect the KPAP program.

One issue is whether, or how, the US healthcare reform bill, which may pass in 2010, could affect the number of low-income and uninsured people who could benefit from the KPAP program. Even if a strong healthcare reform bill is passed, it will still be several years before low-income and uninsured populations begin to be meaningfully covered by new insurance with prescription drug benefits. This means that for at least the next several years, many Kentuckians will have a need for the KPAP program. Consequently, Kentucky would not want to eliminate the KPAP program with the passage of healthcare reform.

A second issue is the potential effect of health information technology (HIT) and electronic health records (EHR) on the KPAP system. HIT and EHR technologies will also take a number of years to develop and become significantly integrated. Kentucky's e-health network is currently still in the planning stages, and its leaders are unsure how it will even design and develop its approach to HIT. For this reason, we believe that new HIT will not affect the ability of KPAP to operate in the next few years. However, it would be prudent for the KPAP program and its vendor to work together to monitor HIT developments, and, as appropriate consider how the KPAP technology could interface with new HIT technologies to deliver increased value to Kentuckians in need. In addition, we recommend that the KPAP software vendor begin to consider how its software can be enhanced over time to integrate with the evolving nationwide health information network efforts currently underway.

4   RESEARCH LIMITATIONS

This research relied substantially on both verbal and written information provided by the KPAP program personnel, and by the Drug Assistant, LLC personnel. All information was not independently verified. However, in general, we believe the information provided is reasonable, and appropriate, for decision-makers to consider in making decisions about continued and increased funding for the program.

5   RECOMMENDATIONS TO IMPROVE PROGRAM

Based on the information provided in this report, the following recommendations are made:

1. Because of the benefit it has already delivered, and promises to deliver in the future for Kentuckians (e.g. $90 million or greater benefits), and the relatively modest costs of $600,000 - $1 million per year, the program should be continued and if possible, expanded.

2. Maximum benefit will be delivered to Kentuckians if the program funding is increased to support a total of five community organizers and additional software licenses as needed.

We also believe additional research in the following areas could be beneficial to the program:

- Research to quantify actual filled orders (versus estimated filled);

- Research to develop more detailed estimates of target populations with potential to use the program and more specific estimates of the types and quantities of medications they require.

In addition, we encourage the KPAP program to explore additional, complementary services which may be available from the KPAP vendor, or others, in the marketplace. These may include:

- Extension of program into hospital reimbursement categories.

- Implementation of eRX discount cards, linked to KPAP program.

A discussion with the vendor is recommended to develop further knowledge of these opportunities.

6 CONCLUSION

In conclusion, the state's KPAP program was assessed, and methodology developed for assessing return on investment for the program. The research methods used included review of documents, meeting with key personnel, and an academic analysis of the program and its stakeholders. Based on the review, a methodology was developed for calculating value and return on investment. The methodology was implemented. Based on the methodology, and using data provided by the state and its vendor, the program has already generated over $14.4 million in benefits to Kentuckians in less than a year of full operation at a cost of $600,000 per year.   Annually, it has potential to generate $90 million or greater value for Kentuckians for an investment of $1 million per year (see Recommendations, Section 5).

No matter what happens with US healthcare reform and the development of health information technology, it appears the program will be needed during the next several years, and that the technology selected will remain relevant, and won't become obsolete. Additional research to refine the data used for the KPAP program could be helpful, and there may be additional programs for hospitals (e.g. hospital PAP programs) and for patients (e.g., Rx discount cards) which could deliver additional value to low-income Kentuckians. These opportunities should be considered.

APPENDIX 1: COMMUNITY ORGANIZERS AND COVERAGE AREAS

Kentucky Prescription Assistance Program
Community Organizers & Coverage Areas

Carol Baldwin – Central Kentucky
1111 N. Dixie Avenue, Suite 2
Elizabethtown, KY 42701
(270) 737-0669

Breckinridge		Anderson	
Grayson		Boyle	
Hardin		Bourbon	
Larue	**(Lincoln Trail)**	Clark	
Marion		Estill	
Meade		Fayette	
Nelson		Franklin	**(Bluegrass)**
Washington		Garrard	
		Harrison	
		Jessamine	
		Lincoln	
		Madison	
		Mercer	
Bullitt		Nicholas	
Henry		Powell	
Jefferson		Scott	
Oldham	**(KIPDA)**	Woodford	
Shelby			
SpencerTrimble			

Boone
Campbell
Carroll   **(Northern KY)**
Gallatin
Grant
Kenton
Owen
Pendleton

Deanna Jessie – Eastern Kentucky
18 Bauer Road
Olive Hill, KY 41164
(606) 286-4754

Bracken
Lewis   **(Buffalo Trace)**
Mason
Robertson
Fleming

Bath
Menifee
Montgomery   **(Gateway)**
Morgan
Rowan

Boyd
Carter
Elliott   **(FIVECO)**
Greenup
Lawrence

Floyd
Johnson
Magoffin   **(Big Sandy)**
Martin
Pike

Breathitt
Knott
Lee
Leslie   **(Kentucky River)**
Letcher
Owsley
Perry
Wolfe

Bell
Clay
Harlan
Jackson   **(Cumberland)**
Knox
Laurel
Rockcastle
Whitley

Casey
McCreary   **(Lake Cumberland)**

Pulaski
Wayne

Bryant Hileman – Western Kentucky
3791 Clinton Road
Paducah, KY 42003
(270) 254-1541

Ballard   Adair
Calloway   Clinton
Carlisle   Cumberland   **(Lake Cumberland)**
Fulton   **(Purchase)**   Green
Graves   Taylor
Hickman   Russell
Marshall
McCracken

Caldwell
Christian
Crittenden
Hopkins
Livingston   **(Pennyrile)**
Lyon
Muhlenberg
Todd
Trigg

Daviess
Hancock
Henderson
McLean   **(Green River)**
Ohio
Union
Webster

Allen
Barren
Butler
Edmonson
Hart   **(Barren River)**
Logan
Metcalfe
Monroe
Simpson
Warren