A Proposal for an Enterprise Architecture for the Center of Medicare and Medicaid Services

Sara Sobczyk

University of Denver University College

ICT-4010 Enterprise Architecture

November 10, 2019

Instructor: Dr. Steve Else, Ph.D.

[1] TOGAF is a registered trademark of The Open Group.

Table of Contents

[1] TOGAF is a registered trademark of The Open Group.

Executive Summary

The purpose of this paper is to bring attention to billions of dollars lost within the Medicare and Medicaid systems. Over the years there have been gaps within their financial review process making it easy for things to slip through the cracks. Deploying an efficient and effective Enterprise Architecture should elevate some of the frustration and confusion around missing information and financial issues. The five issues that are to come in this paper are only a few of the on-going problems the Center for Medicare and Medicaid Services (CMS) is having with its part of the Department of Health and Human Services. Medicare and Medicaid are two of the largest programs within the Department of Health and Human Services, making it crucial that they need to be financially cautious. Established on the understanding of the organization's structure, a new Enterprise Architecture will provide the organization a starting off point to find and understand the underlying issues that still remain. It will also help fix the issues, that are already identified, in an orderly manner.

Deploying a TOGAF®[1] framework will put a responsive process in place for the organization to improve alignment across their business objects and an IT infrastructure. The TOGAF framework is a well-known framework across the EA industry, it establishes the architecture framework, develops content, transitioning, and governing the realization of architectures (The Open Group, 2018). With this framework, the company will be able to filter out the unnecessary programs and implement the proper channels the CMS needs to deploy a successful EA program.

[1] TOGAF is a registered trademark of The Open Group.

Background and Vision

Over the years, the Department of Health and Human Services (HHS) has implemented many recommendations made by the United States Government Accountability Office (GAO) resulting in billions of dollars saved. The Center for Medicare and Medicaid Services (CMS) is an agency within HHS. They are in charge of many crucial national health care programs that affect the lives of millions of Americans. CMS collects and analyzes data, produces research reports, and works to eliminate instances of fraud and possible abuse of the health care system (Kagan, 2019_1). Medicare and Medicaid are two of the largest programs within HHS, making it crucial that they need to be financially cautious because there is a large population of people that depend on these programs alone.

Medicare is a taxpayer-funded program for older adults 65 years or older that has worked and paid into the system through the payroll tax (Kagan, 2019_1). It is also health coverage for people with confirmed documented disabilities and people who have end-stage diseases (Kagan, 2019_1). Medicare has four separate parts, titled A, B, C, and D. Part A covers inpatient hospital stays, skilled nurses, hospice, and even home services. Part B covers medical coverage and it also includes the physician, lab work, outpatient, preventative care, and any other possible services. Part C is also considered Medicare Advantage (MA) and is the combination of both part A and part B. The last part is D, this covers drugs and prescription medications. Part D was signed in by President George W. Bush in 2003 (Kagan, 2019_1). Medicaid is a health program that aids low-income people to help them pay for doctor visits, short- and long-term hospital stays, daily care and much more (Kagan, 2019_2). It is funded

[1] TOGAF is a registered trademark of The Open Group.

largely by the federal government and is run at the state level. It is only available to people who meet explicit criteria (Kagan, 2019[2]).

The GAO wanted to do this study because HHS manages hundreds of complex programs that benefit the health and well-being of millions of Americans. In 2012, they were responsible for roughly $76 billion in flexible spending and for roughly $788 billion in required spending (Office, 2012[3]). With this funding, they provide one in four Americans with health care insurance and they administer more grant money than any other federal agency, even if they all banded together (Office, 2012[3]). With Medicare and Medicaid being the two largest programs, it would be wise to detect and correct inefficiencies that have been losing money for these programs in particular. In the more recent years, GAO has identified several issues within the Medicare and Medicaid programs that still have not been resolved. Fortunately, GAO has also provided possible solutions for these issues. For instance, in 2004, CMS implemented GAO's recommendation that they reduce the number of contractors managing the Medicare Secondary Payer debt, which occurs when Medicare pays for services that is supposed to be the financial responsibility of another person (Office, 2012[3]). With this implementation, they have saved $86 million from 2006 through 2010 (Office, 2012[3]).

With agencies having less money to work with for their programs, they have to be financially savvy, and the recommendations that have not been implemented are huge opportunities to help save money in different places. HHS is looking for opportunities for financial savings and program improvements in Medicare and Medicaid. There are many parts of HHS that could potentially yield billions of dollars in savings within these two programs with the implementation of the remaining recommendations from GAO.

[1] TOGAF is a registered trademark of The Open Group.

Major Architecture Issues

Financial Issues

- Within the Medicare program, they are dealing with the issue of improper payments and fraud.
- There are issues with payments aligning with the health status of Medicare Advantage (MA) plan beneficiaries.

Business Process Issues

- Medicare beneficiaries' use of preventative services didn't always align with the U.S. Preventive Service Task Force's recommendations.
- Medicaid payments lack the appropriate oversight by the CMS to ensure that the supplemental payments to providers are reviewed.
- Medicaid's demonstrations are increasing federal liability.

[1] TOGAF is a registered trademark of The Open Group.

Implementation

In exploring the current state of HHS Medicare and Medicaid programs and their processes, there are several issues that arise when it comes to their outgoing money flow and business processes. The GAO has provided possible solutions to help save these two programs money in the future if they implement them. With the sheer size, complexity, susceptibility to improper payments, and the need to improve the program management of these two programs, the CMS has to continuously focus on their methods because both are considered high-risk (Office, 2012$_3$). Let's take a look at three financial issues that the programs are having and two business process issues that need some work as well.

Financial: Issue One

The first financial issue is with the Medicare program. They are dealing with the issue of improper payments and fraud. From the beginning of April 2005 to end of March 2006, CMS has estimated that the program made roughly $700 million in improper payments for durable medical equipment, prosthetics, orthotics, and supplies (DMEPOS) (Office, 2007). To help protect Medicare from these improper payments there are three Program Safeguard Contractors (PSC) and four contractors that process Medicare claims. GAO examined these contractors' activities to prevent and possibly minimize improper payments for DMEPOS claims and to also describe CMS's oversight of PSC program integrity activities that they have been running (Office, 2007). In the effort to minimize and try to prevent improper payments for DMEPOS, the CMS contractor's performed activities like medical reviews of certain claims before they are paid to determine if it meets all the criteria to be covered by Medicare. They

[1] TOGAF is a registered trademark of The Open Group.

also are responsible for the automated prepayment controls that deny claims that shouldn't be paid or find claims that need to be reviewed (Office, 2007).

With automated programs, comes a few issuesGAO found that make the Medicare program susceptible to wrongful payments. One of the issues is that the automated prepayment controls could not identify problematic claims that have an abnormal quick increase in their billing. The second problem is that those automated prepayment controls are not set up for items that are unlikely to be prescribed by a care physician during an appointment. The third issue is that the CMS doesn't require the contractor to share the data and information they collect with the other contractors (Office, 2007). If the CMS would have fixed these short-comings, Medicare could have saved $71 million in less than two years. For example, just one effective automated prepayment control that was designed to prevent Medicare from paying more than one home-use hospital bed per month for a beneficiary (Office, 2007). Only one out of the seven contractors used the automated prepayment controls to help prevent the problem.

The CMS agreed with the GAO's recommendations. They currently want to expand their current regulations to take away billing privileges from in home health agencies that have improper billing practices. They also want to give personnel the ability to evaluate and address issues within the payment system and add payment safeguards for medical staff that use advanced imaging services (Office, 2012_3). The Program Safeguard Contractors should be required to develop limits for unexplained raises in billing and then turn around and use them to develop automated prepayment controls as one implementation of their manual medical review strategies (Office, 2007). Another recommendation that the GAO added was having the

[1] TOGAF is a registered trademark of The Open Group.

CMS require the Durable Medical Equipment Medicare Administrative Contractors, Durable Medical Equipment Regional Carrier, and Program Safeguard Contractors to exchange data about their automated prepayment controls. This could get each team talking about whether or not the automated prepayment controls that were created by the other teams could actually reduce incidences of improper payments (Office, 2007). Q

Financial: Issue Two

The second financial issue is with payments aligning with the health status of Medicare Advantage (MA) plan beneficiaries, which as mentioned in a previous section is Part C. Part C is the combination of both part A and part B of the Medicare system. In 2010, $115 billion was spent on the MA program alone. In 2012, the GAO informed the CMS that they could saving billions of dollars by more accurately adjusting for diagnostic coding differences in the MA plans and Medicare fee-for-service (FFS) plans when reporting of recipient diagnoses (Office, 2012_3). With this information, CMS conducts a risk analysis and gives each recipient a score. Depending on how high that score is, it could result in an increase of their Medicare payments to plans and vis a versa (Office, 2012_3). The problem with this risk analysis score is that it differs from MA to FFS plans, when they should be the same.

In 2010, the CMS's methodology did not include any current data, didn't include the impact trend of the coding differences that have been happening over time, and did not account for other recipient characteristics other than age and mortality. The other characteristics they should have considered were sex, health status, Medicaid enrollment status, beneficiary residential location, and whether the original reason for the Medicare entitlement was for disabilities (Office, 2012_1). CMS predicted that 3.4 percent of 2010 MA

[1] TOGAF is a registered trademark of The Open Group.

recipient's risk scores were credited to coding differences between MA plans and Medicare FFS plans. This adjustment avoided $2.7 billion in surplus payments to MA plans (Office, 2012[1]). CMS did not implement the coding differences between the MA and FFS plans between 2011 and 2012, which has resulted in excess payments to MA plans.

GAO recommends that they adjust more accurately for differences between the MA plans and the more traditional Medicare plans when reporting beneficiary's health status (Office, 2012[3]). This means that they should improve the accuracy of the of the adjustment made for the differences found in in the coding practices between the two Medicaid plans. To avoid these issues in the future, GAO wants them to account for more recipient characteristics, adding in the most current data that is available at the time, figuring out and adding in the many years of coding differences that could affect the payment year where an adjustment is going to be made and finally, they need to incorporate the impact of the coding differences when they are assessing recipients risk scores (Office, 2012[1]). Also, they should get rid of the MA Quality Bonus Payment Demonstration because its design doesn't bring forth any meaningful results. It also will cost roughly over $8 billion dollars for the next 10 years and most of it will be paid out to plans with average performance (Office, 2012[1]). The CMS should also allow the Patient Protection and Affordable Care Act (PPACA) quality bonus payment system to take over.

Business Process: Issue Three

The third issue within Medicare is that beneficiaries' use of preventative services didn't always align with the U.S. Preventive Service Task Force's recommendations. Providing patients with coverage for services that are recommended by clinical experts has the potential to

[1] TOGAF is a registered trademark of The Open Group.

improve health outcomes and lower health care disbursements. It has been reported in 2008 to 2009, only two out of three women between the ages of 65 to 75 had a mammogram to screen for breast cancer. This is a recommended biannual screen for this age group by the U.S. Preventive Service Task Force (Office, 2012_2). In addition, in 2008, less than seven percent of FFS recipients, who became eligible for the WTM exam, actually received it. For FFS recipients who became eligible in 2006 and actually received the exam, usage rates for all of the selected preventive services GAO reviewed were higher than for recipients who did not have the exam (Office, 2012_2). This means that people who had this exam, that was approved by the Task Force to be covered, paid higher rates than the people that never had the exam done. Given that the U.S. Preventive Service Task Force recommended against prostate cancer screening for men aged 75 or older, the absence of cost sharing for that segment may encourage inappropriate use of this service (Office, 2012_3).

GAO's recommendation was that the CMS administrator should take the necessary steps to better align Medicare recipients' use of preventative service with the Task Forces recommendations. This includes providing coverage for the services that have an A or B grade for the recommended populations, as appropriate, given cost-effectiveness and possible other criteria (Office, 2012_2). GAO concluded that improvements need to be made to improve the appropriate use of preventive care by revising the coverage and cost-sharing policies and educating physicians and, recipients, to understand what is covered and what is not. (Office, 2012_3). One of the biggest recommendations was to have Congress consider requiring recipients to disclose the cost of the services they have received that the Task Force did not recommend for coverage (Office, 2012_3).

[1] TOGAF is a registered trademark of The Open Group.

Business Process: Issue Four

The fourth issue is that Medicaid payments lack the appropriate oversight by the CMS to ensure that the supplemental payments to providers are reviewed. The financing for the $299 billion Medicaid program is split between the federal government and the state government (Office, 2008$_2$). Along with standard Medicaid payments, many states make supplemental payments to certain providers, which are then matched by federal funding. Disproportionate share hospital (DSH) payments and non-DSH supplemental payments increase federal funding without a corresponding increase in state funding (Office, 2012$_3$). In previous years there have been federal legislative and also CMS actions, that were taken to try and curb the inappropriate financing to these activities. Unfortunately, there is still huge gaps in oversight that still remain.

For instance, there are federal requirements put into place to enrich the transparency and accountability for state DSH payments, but there are not any federal requirements for non-DSH supplement payments. Their non-DSH supplement payments could be increasing in the meantime (Office, 2012$_3$). It was reported that state non-DSH supplement payments increased from $6.3 billion to a whopping $14 billion from 2006 to 2010, but according to CMS officials, reporting was most likely incomplete. The exact amount and distribution of non-DSH supplement payments in the fiscal year of 2006 is unknown, because the states did not report all their payments to the CMS (Office, 2008$_2$).

The GAO had a few recommendations for this issue around the review process, or lack thereof. They suggested that the CMS adopt transparency requirements and a new strategy to ensure that the supplemental payments to providers have been actually reviewed. The CMS should develop a new strategy to identify all of the supplemental payment programs that have

[1] TOGAF is a registered trademark of The Open Group.

been established within the states' Medicaid plans because they need to improve the oversight of these Medicaid payments. They also need to review those programs that have not been reviewed under the CMS's August 2003 initiative (Office, 2008[2]). The CMS has taken some action, in the meantime, to address some of the recommendations from the GAO, but the GAO believes that more needs to be done within the review process to improve the supplemental payment programs (Office, 2012[3]).

Business Process: Issue Five

The last issue is that Medicaid's demonstrations are increasing federal financial liability. Under the Social Security Act, Section 1115, authorizes the Secretary of HHS to waive certain legal requirements to allow states to implement Medicaid demonstrations that are likely to assist in achieving their program objectives. According their policy, the cost of demonstrations should not increase federal costs. However, in 2008 the HHS had approved two state Medicaid demonstrations that could increase the federal financial liability significantly (Office, 2012[3]). There are just a few guidelines that these demonstrations need to meet in order to maintain Medicaid's fiscal integrity. One, it needs to stay budget neutral to the federal government. And two, it needs to maintain Medicare's fiscal integrity (Office, 2008[1]).

Two demonstrations that seemed to slip through the cracks were from Florida and Vermont. The GAO obtained information from federal and state officials and also relied on previous demonstrations for review (Office, 2008[1]). This became a problem because the HHS did not adequately ensure that Florida and Vermont's Medicaid demonstrations would remain budget neutral before they approved them. The HHS had granted them higher spending limits that were higher than the states limits that were based on benchmark growth rates. A

[1] TOGAF is a registered trademark of The Open Group.

benchmark growth rate is the lower of the state's historical spending growth or nationwide estimates of Medicaid growth (Office, 2008[1]). There are some instances where HHS will allow states to diverge from these benchmarks, as long as they can show that using the benchmarks wouldn't show accurate projections. In these two instances, there was no documentation that showed there was good reason to deviate from the benchmarks (Office, 2008[1]).

HHS approved a $52.6 billion spending limit in Florida for a five-year demonstration. This was $6.9 billion more than the documentation supported. In Vermont, they approved $4.7 billion, which was $246 million higher than the documentation supported (Office, 2008[1]). These two demonstrations did not maintain the integrity of Medicaid's financials either. The HHS allowed Florida to base their demonstration spending limit on historical spending that included payments that had been deemed problematic. The HHS found several problems with these historical payments that potentially resulted in inflated and inaccurate payments in 2005 Vermont proposed operating a managed care organization and the HHS agreed to reimbursement rate higher than what the state had received prior to the demonstrations. (Office, 2008[1]).

The GAO had made previous recommendations that were unfulfilled, so GAO took it to Congress. Congress will have to consider requiring increased attention to financial responsibilities in the approval of Medicaid demonstrations. They will have to require the Secretary of HHS to improve the review process by clarifying criteria for reviewing and approving all states' projected spending limits, ensuring that valid techniques are used to establish budget objectivity, and lastly by documenting and making public material explaining the basis for any approvals.

[1] TOGAF is a registered trademark of The Open Group.

Next Steps

New EA program

The GAO has many recommendations on how to fix their current issues with the Medicare and Medicaid problems, but with so many recommendations where should the CMS start? Even with the few covered in this paper, it can seem overwhelming when the potential of saving so much money is at stake. The CMS needs to take a step back from the issues and the recommendations to figure out that the best course of action would be to gather their thoughts and get organized to start the implementation of the GAO's recommendations. Please see Figure A and B for a side by side comparison of the structure they have now (A) and what the structure could looking like after implementing the recommendations (B).

What it lacks, is a proper Enterprise Architecture framework to help align the over-all goals, program design and understand the problems that arise, and what the potential solutions could be. An implementation of an Enterprise Architecture with a TOGAF framework (see Figure C in the appendix) would be a good recommendation for the Centers for Medicare & Medicaid Services because it enables the CMS organization to build a workable and cost-effective solution to address the issues they are still having. They would be able to align their solutions with the business objectives in a controlled manner using the Architecture Development Method (ADM). Establishing an effective Enterprise Architecture can bring important benefits to the organization. Benefits include a more effective and efficient business operation, digital transformation and IT operations, better return on existing investments and a reduction of risk on future investments, along with a faster, simpler, and cheaper procurement function (The Open Group, 2018). A good Enterprise Architecture enables you to achieve the

[1] TOGAF is a registered trademark of The Open Group.

right balance between business transformation and continuous operational efficiency (The Open Group, 2018).

The GAO had already started with a rationalization of the two programs. They figured out what their issues were and that they needed to either be kept, replaced, retired, or consolidate because they no long meet the needs of the business, which is saving money where it is needed and adjusting their business process to implement a better structure.

Adding an architectural framework enables businesses to have a solid foundation for their Enterprise Architecture. There are several different frameworks that could benefit the Centers for Medicare & Medicaid Services to locate and resolve the issues they are having with the Medicare and Medicaid programs. “The EA framework defines what the EA program will document” (Ross, 2006). Without this framework, the HHS will lose money because they don’t have the blueprints to build the systems out properly. They could be duplicating data because they don’t know what data has already been collected, or losing data needed to understand how money is slipping through the cracks.

The TOGAF Architecture Development Method (ADM) provides testing and repeatable processes for developing the architecture. With the TOGAF ADM, it establishes the architecture framework, develops content, transitioning, and governing the realization of architectures (The Open Group, 2018). These 8 phases allow the CMS to transform their Medicare and Medicaid programs in a controlled manner in response to business goals and opportunities. People that are executing the ADM, architects, will manufacture multiple outputs like process flows, architectural requirements, project plans, project compliance assessments and much more (The Open Group, 2018).

[1] TOGAF is a registered trademark of The Open Group.

Implementing a successful Service-Oriented Architecture (SOA) would be a great step in the right direction. SOA is a style of software design where services are provided to existing components by means of application components over a network (Community, 2019) (see Figure D in the appendix). An SOA system would enable the Center for Medicare and Medicaid to see what all teams, Durable Medical Equipment Medicare Administrative Contractors, Durable Medical Equipment Regional Carrier, and Program Safeguard Contractors, are doing all at once. This would help address and streamline a new system across all the teams that filters and organizes recipients by specific characteristics.

Roadmap

An enterprise architecture roadmap is a calculated blueprint that connects how an organization's IT plans will help the overall organization achieve its business objectives. (ProductPlan, 2019). An EA roadmap is a helpful tool to help draw a step-by-step plan that links the organization's goals and an IT infrastructure. Having a road map helps to earn stakeholder buy-in, if needed. It is a versatile tool that lets you share details with different audiences, and it keeps the team on track with the right priorities, knowing what they need to step-by-step.

Below is a roadmap that highlights a series of key activities that will take place during the implementation of the Enterprise Architecture into organization. Since I believe that this is the first EA implemented, the organization must begin from the beginning, the Preliminary Phase, and move through the different phases to fully integrate EA. Below will give you a brief timeline on the implementation:

[1] TOGAF is a registered trademark of The Open Group.

Phase One: Time: 2 months	Phase Two: Time: 2 months	Phase Three: Time: 5 months	Phase Four: Time: 6 months	Phase Five: Time: Infinity
- Board's final decision on the implementation of the TOGAF framework				
- Build out regulations for proper billing practices, adding personnel to address issues (Issue 1)	- Hiring a few more Program Safeguard Contractors (Issue 1)	- Adding payment safeguards and prepayment controls for medical staff for advanced imaging services (Issue 1)	- Implementation of the new regulations, giving personnel the ability to address any billing issues (Issue 1)	- Prepayment controls data exchange between DMEMA Contractors, DMER Carriers, and Program Safeguard Contractors (Issue 1)
- Pin point the spot in the system that is not differentiating MA plans and traditional plans. Start phasing out the MA Quality Bonus Payment Demonstration (Issue 2)	- Start coding the system control that filters out all the Medicare plans into different sections (Issue 2)	- Add more diversifying characteristics to differentiate the plans. Finalize the phasing out of the MA Quality Bonus Demonstration (Issue 2)	- Add in the coding differences that could affect. Implement PPACA Quality Bonus Payment System (Issue 2)	- Implement the system control to filter MA programs (Issue 2)
- Revise the coverage and cost sharing policies and educate physicians on coverage (Issue 3)	- Find and understand the Task Forces' recommendations on recipients' use of preventative services (Issue 3)	- Code in the system that diversifies recipients' characteristics (Issue 3)	- Filter in the recommended preventative services from the Task Force for each section of recipients (Issue 3)	- Educate recipients so they understand their coverage and disclose to them the cost of the services the Task Force didn't recommend for them (Issue 3)
- Locate the review process shortcomings (Issue 4)	- Implement the transparency requirements and new strategy (Issue 4)	- Educate reviewers on the transparency requirements and new strategy (Issue 4)	- Go back and review programs that have not been reviewed under the 2003 initiative (Issue 4)	
- Accurately justify the spending limits for demonstrations (Issue 5)	- Clarify criteria within review project to automatically filter out demonstrations that are over the spending limits (Issue 5)	- Review that valid techniques are used to establish budget objects (Issue 5)	- Document material explaining the basis for any approvals (Issue 5)	- Publish material explaining the basis for any approvals (Issue 5)

[1] TOGAF is a registered trademark of The Open Group.

Conclusion

In exploring the current state of the Center for Medicare and Medicaid Services this paper described a study done by GAO because in 2012 the HHS was in charge of hundreds of complicated programs including the two largest, Medicare and Medicaid, that help benefit the overall well-being of Americans. The HHS is responsible for billions of dollars in flexible and required spending. The GAO had recommended many solutions to the five issues the Medicare and Medicaid programs are having to help them save more money. With implementing an effective Enterprise Architecture program, the GAO solutions would be controlled and regulated to fit the CMS's business objectives. The use of the TOGAF framework allows them to have a solid foundation to meet those objectives and potentially save the organization billions of dollars. The SOA has also provided a proper way for the CMS to use their existing systems and adding in new channels for additional IT infrastructure. Without the use of a framework and a proper Enterprise Architecture, adding these recommendations would have no structure and could lead to the misalignment of business objectives.

[1] TOGAF is a registered trademark of The Open Group.

Appendix

Figure A

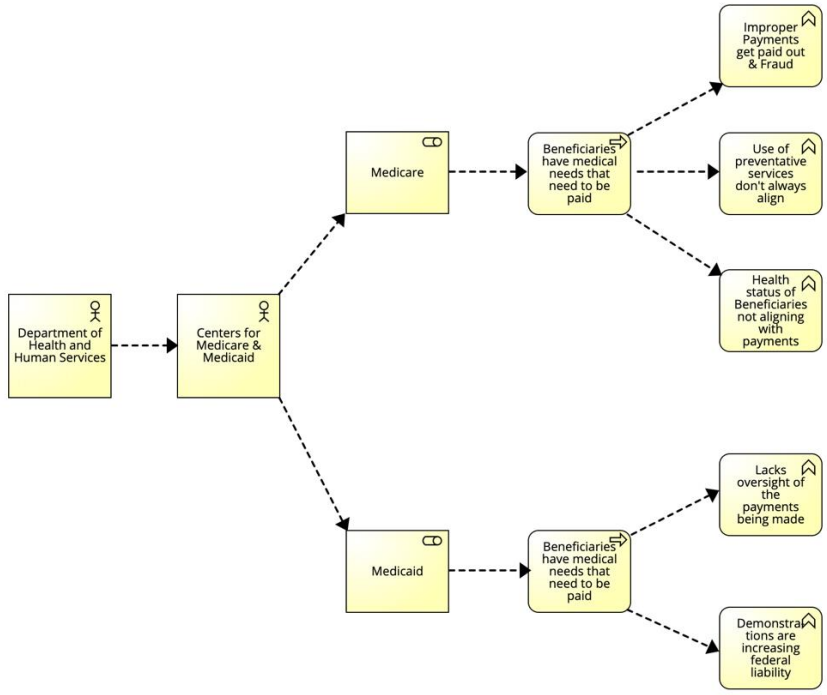
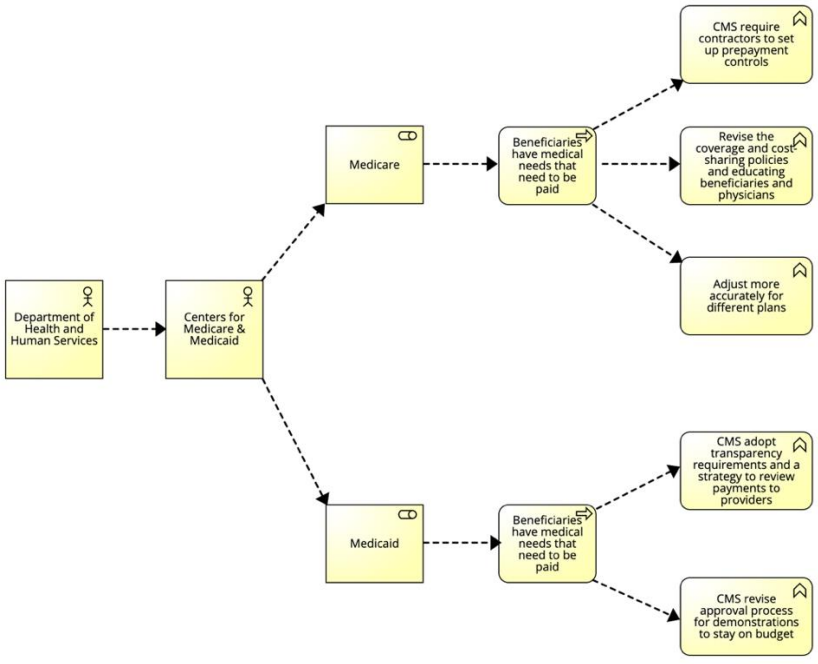


Figure B



[1] TOGAF is a registered trademark of The Open Group.

Figure C

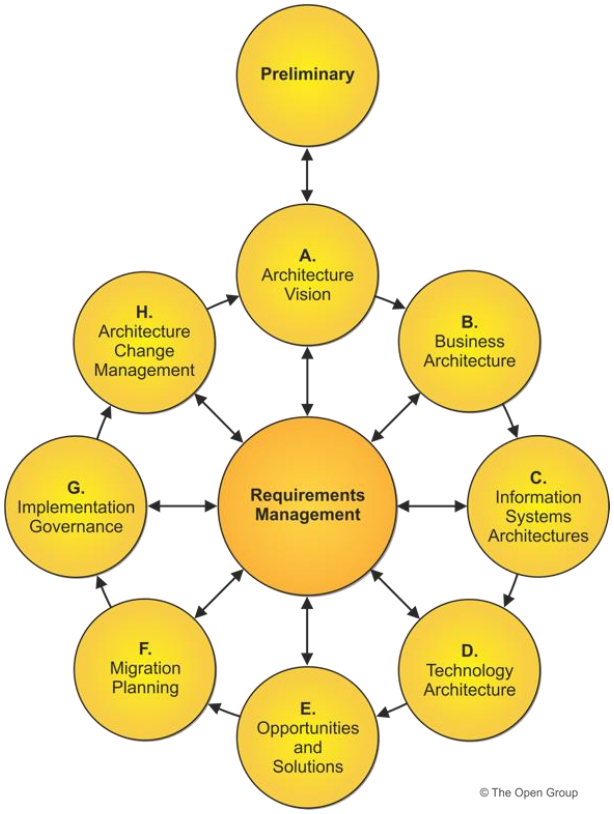


Figure D

(Community,2019)

[1] TOGAF is a registered trademark of The Open Group.

References

Community, S. D. (2019, February 13). What Is Service-Oriented Architecture? Retrieved November 6, 2019, from https://medium.com/@SoftwareDevelopmentCommunity/what-is-service-oriented-architecture-fa894d11a7ec.

Kagan, J. (2019, August 29). Centers for Medicare and Medicaid Services (CMS). Retrieved October 23, 2019, from https://www.investopedia.com/terms/u/us-centers-medicare-and-medicaid-services-cms.asp.

Kagan, J. (2019, March 12). Medicaid. Retrieved October 23, 2019, from https://www.investopedia.com/terms/m/medicaid.asp.

Office, U. S. G. A. (2007, March 6). Medicare: Improvements Needed to Address Improper Payments for Medical Equipment and Supplies. Retrieved October 28, 2019, from https://www.gao.gov/products/GAO-07-59.

Office, U. S. G. A. (2008, March 3). Medicaid Demonstration Waivers: Recent HHS Approvals Continue to Raise Cost and Oversight Concerns. Retrieved November 2, 2019, from https://www.gao.gov/products/GAO-08-87.

Office, U. S. G. A. (2008, June 30). Medicaid: CMS Needs More Information on the Billions of Dollars Spent on Supplemental Payments. Retrieved November 1, 2019, from https://www.gao.gov/products/GAO-08-614.

Office, U. S. G. A. (2012, January 26). Medicare Advantage: CMS Should Improve the Accuracy of Risk Score Adjustments for Diagnostic Coding Practices. Retrieved from https://www.gao.gov/products/GAO-12-51.

Office, U. S. G. A. (2012, February 17). Medicare: Use of Preventive Services Could Be Better

[1] TOGAF is a registered trademark of The Open Group.

Aligned with Clinical Recommendations. Retrieved October 31, 2019, from https://www.gao.gov/products/GAO-12-81.

Office, U. S. G. A. (2012, May 9). Department of Health and Human Services: Opportunities for Financial Savings and Program Improvements in Medicare and Medicaid Remain. Retrieved October 23, 2019, from https://www.gao.gov/products/GAO-12-719T.

ProductPlan. (2019). Enterprise Architecture Roadmap: Definition and Overview. Retrieved November 6, 2019, from https://www.productplan.com/glossary/enterprise-architecture-roadmap/.

Ross, Jeanne W., Peter Weill, and David C. Robertson. Enterprise Architecture as Strategy. Massachusetts: Harvard Business School Publishing, 2006.

The Open Group. (2018). The TOGAF® Standard, Version 9.2. Retrieved October 13, 2019, from https://pubs.opengroup.org/architecture/togaf9-doc/arch/chap01.html.

[1] TOGAF is a registered trademark of The Open Group.