

Rockin' Pneumonia and the CMMI Flu Thomas M. Cagley Jr.

In spending many nights alone in hotel rooms I've learned many things. One is that you should always check the alarm clock, even if you're not going to use it. On one of my many nights in a hotel, I woke from a deep sleep by Johnny Rivers singing *The Rockin' Pneumonia and the CMMI Flu*. The music was replaced by a voice on the radio saying that the CDC (The CMMI center for disease control) had identified four major types of CMMI Flus each with a number of variants

My wife might be right, perhaps I need a vacation.

Projects are similar to people. Projects follow a predictable lifecycle, they begin with great levels of exuberance followed by valleys of despair in the middle and those that survive cross the finish line whether to adulation or cat calls depends on expectations. Not all CMMI projects make it to fruition. The daily grind all projects endure depresses the project's immunology system setting the stage for the CMMI flu.

My doctor once told me that the symptoms of the flu he had just diagnosed were an indication to change your plans, at least in the short term. "The CMMI Flu. . . What are the symptoms?" you might ask. Symptoms include

- Delusions
- Inability to Communicate
- Extreme exhaustion
- Pains (Neck and bottom are most effected)
- Lost of bodily control

Organizations implementing the CMMI (any version) have a tendency to lose energy and develop flu-like symptoms as time goes by. The type of flu your organization might be susceptible to depends on many factors; ranging from how your process improvement effort was initiated, how long the process has been going and your organizational culture. After years of study and at least a few minutes of thought, I would like to suggest that a taxonomy exists of three major types of CMMI Flu. Unlike the human flu, there are means to combat all of the major types of CMMI Flus and their variants (none of which include taking two aspirins and calling me in the morning).

Meta Flus

The viruses that can geminate into the CMMI Flu could be introduced as early as project inception, only to be recognized later after the new project smell wears off. Projects started for the wrong reason are susceptible to the 'Why? Flus'. Those that do not take organizational norms and mores into account are susceptible fall prey to the stresses of "Culture Flu." Failure to manage the

common office politics can cause a range of flus organized into a grouping called "Human Flu."

Why? Flus

Organizations choose to pursue the CMMI to create organizational change for many reasons. The old adage say 'that all roads lead to Rome'; however, what is unsaid is that not all roads are as easy and safe as others. The reason your organization has chosen to pursue the CMMI can put you at risk for the first type of CMMI Flu. Like with the common flu or cold, putting your self in risky situations puts you at greater risk. Unlike the common flu, washing your hands to remove the virus is not an option. Understanding your risk puts you in a position to increase the chance to avoid infection.

<u>'Why Flu' Factoids</u>	
Cause:	Organizations begin implementing the CMMI for the wrong reason; or without the proper amount of thought.
Effects:	<ul style="list-style-type: none">➤ Falling support for the project➤ Lack of energy to pursue the project➤ High project mortality

The first of the three most prevalent varieties of Why Flu is the Iconic or Watts Humphrey Flu. The seeds of this variety are laid when a manager goes to a conference and becomes enamored with the CMMI based on the rhetoric of an expert. Conferences are a great place to gather ideas. Ideas are a beginning point and require knowledge gathering and research to germinate. Projects conceived in this manner typically begin before goals are clearly defined. If your sponsor can't clearly and concisely articulate why you are doing this process improvement "stuff," it is highly probable that your goals don't match your business needs. Symptoms of the Iconic Flu include begin with a quick drop in support, which saps the projects energy leading to fever and disorientation (my grandmother always prescribed chicken soup when fever set in which was very messy when I was disoriented), followed inevitably by project flameout.

Two basic tasks are required to dodge the flaming death casued by poorly defined goals. First, educate your sponsor on both the benefits AND the requirements for success. A steady hand should be employed during the education process. Your intent should not be to shock the organization into abandoning the project. Drive home the point that the benefits are not free and that if a commitment cannot be made, the project will fail. One tactic is to facilitate discussions with other organizations that have wrestled with the CMMI.

Experience makes for a potent message. A second tactic is to clearly define what your goals (both personally and organizationally) are in relation to process improvement and make sure they are aligned to your overall business. To immunize your organization from this type of flu, never let a manager attend a conference without proper supervision (the “don’t give loaded guns to children” rule).

The second of the Why Flus is the dreaded “Shopaholic Flu.” The seeds of this variety are planted when the CMMI is sold to the organization. The incidence of this flu has been receding in the past few years (the sales guys are focusing on ERP systems), but when it does occur, the ramifications can be catastrophic. The disease is triggered by jumping into large projects without understanding the ramifications of the effort (related to the “Silver Bullet Flu” below).

Advice for the treatment of this type of flu typically includes suggesting the project manager consider getting a new job. If you pass on the getting a new job option, reorient the project by leveraging your new best friends, the consultants, to educate the organization about both the benefits and ramifications of implementing the CMMI. Education for this type of flu needs to be delivered more quickly than with the Iconic variety. When external parties involved with monetary interests, this type of flu must be dealt with quickly or other opportunistic illnesses (“Human Flus”) can be spawned. During the education process, take the second step of developing the definition of success that provides benefits for your company and the consultant’s on-site team.

The final and unfortunately the most prevalent version of the Why Flus is the Silver Bullet variant. For reasons unknown to modern man, there is a belief that a single simple solution exists for complicated issues. There are those that believe that implementing the CMMI will single-handedly ward off outsourcing, guarantee that work is done on the right projects, that all work is delivered on time and within budget and that it will cure acne. What can you do? If you believe in silver bullets, then chant ‘There is no place like home’ over and over while tapping your heels together; that has as much chance of success as anything else. If your boss is the believer in silver bullets, hysterical laughing is not an unheard of response. Educate, educate, educate. Send him or her to an SEPG conference or SPIN meetings to talk with someone who has done this before. Having overly broad expectations is the quick road to disillusionment. If all else fails, enroll your sponsor in the Peace Corps to gain a little perspective (they do have business development programs).

Culture Flus

Many of the basic tenets of psychology and sociology can be applied to organizations. Organization culture is the shared assumptions, beliefs and normal behaviors of your organization. Culture that is at odds with the changes your SPI project is trying to create will cause problems. Should an organization whose culture is to do ‘whatever it takes and by whatever means,’ really consider

implementing the whole CMMI? Not having a firm grasp of the major tenants of your organizational culture (both IT and the organization as a whole) before you try to introduce change is a recipe for failure.

When change initiatives are disconnected from organizational culture for any length of time, the organization will become confused. Questions like the following will creep into discussions around the water cooler:

- Why did we start this?
- Why do we need process at all?
- Are we there yet?
- How long is this going to take?
- Why isn't everyone using the processes?

These are indications that the organization's mind and focus are beginning to wander; other items are becoming more important (they probably always were, but people are beginning to remember). CMMI efforts that are afflicted with these maladies begin to lose control of their bodily functions and resources begin to wander away.

<u>'Culture Flu' Factoids</u>	
Cause:	Improvement programs do not mesh with organizational culture.
Effect:	<ul style="list-style-type: none">➤ Nearly 100% project fatality➤ Slow onset of symptoms (typically hidden from view until a critical mass is achieved)➤ Symptoms include:<ul style="list-style-type: none">○ Confusion○ Loss of control between SPI Leadership and the

The first of the Culture Flus is Avian or Bird Flu. Organizations with this infection are marked by fevered activity flitting from one improvement program to another (CMMI today, Six Sigma tomorrow and Total Quality Management next week). Terms like 'improvement program *du jour*' are used in normal conversation. Stories and questions about what happen to previous improvement programs will be voiced during discussions of the new programs.

How can you combat the Bird Flu (without resorting to hiring Elmer Fudd in his duck-hunting mode)? Culture is phenomenally difficult to change however two steps are usually effective in slowing the pace of change between improvement programs. The first develop objectives that are directly linked to business' goals. Secondly, link the objectives to executive compensation. Publicly measuring

both progress and success provides a feedback mechanism to reinforce the new culture (who wants to perpetuate a culture of failure?). The Extreme Programming concept of a “big chart” is a simple mechanism to provide measurement feedback coupled with public discussion of the project’s objectives and progress. It is hard to walk away from projects that support the real business, not just IT, especially if you can show measurable success.

The next variety is the venerable “Swine Flu.” Early symptoms include finding yourself using comments like “the only way for those *^%#*^% developers to follow a process is tell them exactly what to do!” Processes begin to take on the appearance and weight of the book *War and Peace*. Progress slows as those defining processes begin to delve into higher levels of granularity. The project falters and begins to wallow in the mud, while desperately attempting cling to its schedule.

Early in my career, the head of an IT organization I was involved with asked me to attend a pig-wrestling event. Watching people wade through calf-deep slop trying to corral a pig was not only amusing but illustrative. When the playing field gets sloppy, even the most agile team slows to a crawl. The only answer is to get rid of the muck. Assess your project: Are the right people involved in planning, developing and implementing change? Do you have sponsorship and support? Over-control creates reactions ranging from passive-aggressive behavior to outright revolution. Involve practitioners on process action teams (this is the most important point in this entire paper), and revisit processes that are stuck. Involve your sponsors in recruiting thought leaders. The days of Fredrick Taylor have passed; relax and take two tablespoons of Kaopectate[®].

The final major variant of the Culture Flu is the “Level Five Flu.” This flu is caused when an influential person within the organization has been involved with a “high maturity” organization in the past (real or imagined) and is more than willing to provide advice without regard to whether it fits. Solutions for this type of flu include listening (remember to view advice that does seem to fit with a jaundiced eye). Second, leverage a page from the Borg, ‘assimilate your advisor’ by incorporating him or her on an improvement team with actual practitioners (the unstoppable force meets the unmovable object) as a form of rehabilitation and a means of assimilating potential political enemies. While this may not immunize your project from bad advice, this type of physical therapy will shorten recovery time.

‘Human Factor’ Flus

People --- you can’t live with them and can’t run a project without them. ‘Human Factor’ flus begin to fester when SPI projects fail to address the formal (and informal) command and control structures. People become invested in how they are doing and controlling their work. Groups and individuals may talk about the need for change, but change will only come about when the pain of not changing is greater than the pain of change (all change is painful). You can’t fully control

'Human Factor' flus because you can only control that which you understand. In real life what you understand is more than nothing and less than you'd like to admit.

Improvement projects that do not make it a point to understand that individuals are invested in the *status quo* and that the influence that any specific individual can bring to bear might be greater than it originally appears, are accidents waiting to happen. 'Human Factor' flus begin slowly, but once the virus takes hold it builds exponentially. When these types of flu set in the head says one thing and the body does another. Confusion sets in, in some cases hallucinations may even occur. CMMI projects have been known to grind to a halt as the information generated by daily project activities doesn't reach project management causing the wrong decisions..

<u>'Human Flu' Factoids</u>	
Cause:	Projects causing change which fail to address the formal and informal command and control structure.
Effect:	<ul style="list-style-type: none">➤ Loss of knowledge about what is really happening➤ Symptoms include:<ul style="list-style-type: none">○ Passive-aggressive behavior toward changes.○ Hearing only what you want to hear.○ Confusion and hallucinations . . .(I see bugs crawling out my processes!)

The first of the Human Flus is the Politician Flu. In the larger non-SPI world, this variety seems to have a two and a four year variants. As with most of the 'Human Factor' flus, the issue is one of knowledge management. There is an old saying --- "Keep your friends close and your enemies closer." This type of flu reflects a failure on both accounts. One common symptom includes supporters and/or sponsors saying one thing and then doing another (of course, they might just say they were being fair and balanced). In a similar vein, support is provided in public, but not in private.

The Oracle of Delphi says, 'Know thy audience!' All SPI projects should spend the time required to build an influence map (if it is a large organization, you may

have to limit map to managers) and keep it up to date. Identify allies that have influence and use them! Influence-mapping is one of those tried-and-true methodologies that should be leveraged on ALL process improvement projects, great or small.

The second and perhaps the most insidious variety of the Human Flu is the Yes Flu. Decision-makers or project leaders answer “yes” to everything, even when it has nothing to do with the question at hand. A variant of this type of flu occurs when your project team only provides information you want to hear. Note: This is not to indicate that negativism or fatalism is good (no shouting “Fire” in the theater unless there really is a fire). Focus on how to make the process work rather than on the reasons it won’t.

This type of flu can have a pathological variant (there are those that are incapable of providing information that something is less than perfect), which will require more effort than available to solve. If you are confronted with the pathological variant, run (don’t walk) away from the project, and I strongly suggest that you review why you took the job in the first place. The non-pathological case of Yesitus is typically caused by the shoot-the-messenger syndrome. If your sponsor is the culprit, leadership training is a long-term solution. Enlisting a new sponsor might be the only short-term solution (use your influence map). If you are the problem, get into a new line of work. One workable solution in all cases is to leverage a 360 Degree Review in which parties from all organizational strata provides feedback to the afflicted manager. It should be noted that unless treated, this type of flu will be terminal for the project and severely career-limiting for the project manager.

The final and most tragic common form of the CMMI Flu is the “Stone Wall Flu.” When this type of flu sets in, everyone in the organization knows the program is having problems, but you will be the last to know. Covetous glances by your co-workers at your office supplies are signs that you should seek medical help immediately.

This type of malady can have at least two significant variants: The first is that organization knows you are in trouble but you don’t. Combating this variety should include leveraging your influence map to identify people to build a two-way communication bridge, coupled with the little known technique called listening. The goal is to build as complete a picture of your environment as possible and then to act upon it. Note: Pursuing this course of action from the beginning is a means of immunization. The second form of this disease occurs when you are the culprit. You have information about the health and welfare of your project and you don’t share and/or act upon it. Consider a leave of absence during which I would suggest counseling, bed-rest and project management training.

Summary

All projects follow a life-cycle. When done correctly, they are conceived, mature and come to fruition delivering business value. Software Process Improvement projects are no different. This type of project is geared to change culture, and it needs to be started for the right reasons. The reason or basis for this type of project creates a foundation that either provides firm footing or basis for illness later in life. Leaders of SPI projects must educate the organization not only on the benefits that will be accrued but on the responsibilities that are required to achieve these benefits. Lack of knowledge on what will be required will spawn surprises that will require time and effort on top of the normal communications and sales needed for any large project. This effort can be ill-afforded during the project and can slow or kill an SPI project.

Develop an influence map of your organization. Know who the thought leaders in your organization are and how communication flows through the organization. This knowledge provides a platform to shape change. Publish the goals, plans and successes of your project. Open, honest communication is a requirement to manage change and forestall the dreaded CMMI Flu.