

## **Transferring the ARMM (Aviation Risk Management Model) into an Ambulatory Healthcare Organization.**

According to studies and official reports, published in the last decades, preventable errors in medicine are among major causes of death in the USA and other western countries. Although, dispute exists about the exact scope of the problem, it is commonly accepted that about 100,000 deaths a year in the USA are attributed to preventable medical errors. When translated to Aviation terms the meaning is that a Jumbo plane crashes daily without survivors. The scope of the problem gained the public's attention in the western world in 1999 and 2001 after publishing the IOM (Institute of Medicine) reports ; "To err is Human" and "Crossing the Quality Chasm". The general tendency was to address the problem as quickly as possible, referring to experience gained in Aviation. We were involved in Aviation Safety and Risk Management since 1976, building expertise in this discipline while serving in the IAF (Israeli Air Force). In 1997 we were introduced to Maccabi Healthcare Fund, after they were for a while looking for professional assistance in establishing Risk Management activities based on the "Aviation Model". Since then and till today we consult Maccabi in their Risk Management operations. The thesis outlines the process of establishing Risk Management activities in Maccabi, in course of about ten years, while reflecting on the process and deriving specific and general insights as to the applicability of the ARMM to healthcare and organizational considerations of establishing the RMD (Risk Management Department).

In order to set the stage for discussing the issue of transferring the ARMM, issues of comparing Aviation and Medicine, transferring models, qualitative versus quantitative research, are discussed and elaborated.

The central research question was what are the implications of transferring a model, developed in one domain to another and specifically the ARMM, which was successful in reducing the amount of errors and accidents in Aviation, into the Healthcare setting (Ambulatory Healthcare Organization).

The research paradigm was qualitative, based on Constructivist approach, coined as Action research. We served as consultants, aiming to assist in the development of Risk Management operation in Maccabi Healthcare Fund (The second Largest Health Fund in Israel – 1.8 million members and 3,600 physicians). The thesis is our reflection on the process, while grounding it on our experience in Aviation Risk Management.

Adopting the ARMM means basically challenging the professional and organizational culture and not merely utilizing several borrowed methodologies from another domain. ARMM can serve as a good starting point but it has to be adjusted to the specific characteristics of the organization. While writing the dissertation we became aware the ARMM is more of an idea than a clear cut model. Thus, as far as we know, the model was formulated for the first time in the thesis and build as a tool for evaluation of the model in a organization.

The thesis asks some basic questions regarding the feasibility of experience and knowledge transfer, from one professional domain to another. Basically, professional disciplines are reluctant to adopt insights from other domains, based on the differences, that do exist between the disciplines while ignoring denominators. The work outlines the process Maccabi passed through while reflecting on it in different stages and formulating insights as to what “works” and what doesn’t.

The topic of Risk Management in Healthcare, has become a critical one in the last decade and is still in its infancy. Thus a work of this kind and volume, may serve all those in the process of implementing Risk Management and those who are already in the process, providing them, with theoretical and practical guidance.

Usually, the focus In Medical Risk Management research is on hospitals and studies on Ambulatory healthcare systems are quite rare, despite the volume of patient-system encounters, which are not less critical in meaning and scope.

In our view, the basic advantage of this work is the fact that, if such a work was existent in the initial stages we started the project with Maccabi, many mistakes and error would have been spared and Risk Management activities would have better chances of being implemented.

While working on the thesis, for almost seven years, our involvement in the various aspects of Risk Management in Healthcare became deeper and wider, on the academic and practical levels. As for now, we are involved in RM consulting for major Healthcare providers, the malpractice insurer, IMA (Israel Medical Association). PSF (Patient Safety foundation) CME programs in Tel-Aviv and Beer Sheba Universities and technological start-up activity, aiming to provide professionals and wide public with valid information regarding medication usage. We believe that working on the thesis developed us professionally and empowered our ability to cope with various new challenges in the field.