LONG-TERM INSIDER ACTION RESEARCH: THREE DECADES OF WORK AT KAISER PERMANENTE

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ABSTRACT

Since 1973, the pharmacy operations division of the Kaiser Permanente Medical Care Program (KPMCP) has used long-term action research programs as the principal method for orchestrating change. This chapter covers the evolution of action research theory within large, complex organizations, with particular attention to health care organizations. Four case examples from KPMCP are discussed in depth and mapped to the recently advanced Roth model of insider action research. This model considers external and internal business context, the perceived need to create new organizational capabilities, as well as insider action research theory and learning mechanisms used in change programs. Issues posed by the Roth model are explored, and new theory is advanced regarding the need for a long-term perspective, the advantages and difficulties posed when managers act as insider action researchers, and the quality of data gathering that takes place during insider action research change programs.

INTRODUCTION

In the organizational change and development field, there are few examples in the literature concerning action research programs that span years and even decades, particularly in large, complex systems. To provide such an example, we point to the record of insider action research programs at Kaiser Permanente Medical Care Program's (KPMCP's) Pharmacy division. Since 1973, managers within the pharmacy division in California have conducted system-wide participative action research programs that have contributed to both theory and practice in the areas of action research, organization design, and collaborative management research. In this chapter, we document the evolution of action research theory toward participative insider action research, provide evidence of long-term action research impacts in Kaiser Permanente and other health care organizations, show how insider action research helps develop new organizational capabilities of lasting value, and provide case examples illustrating learning mechanisms utilized within insider action research programs. Four case examples from Kaiser Permanente are linked to a theoretical model of insider action research as the "Kaiser way" of conducting organization development. Implications for new theory and practice in long-term insider action research are explored.

EARLY ACTION RESEARCH HISTORY

The earliest thinking about action research can be tied to John Dewey. Dewey translated the scientific method of problem solving into more understandable terms. Several years later, his ideas were incorporated into action research as both an approach and a process (French & Bell, 1990). The origin of action research can be traced to two independent sources: John Collier and Kurt Lewin. John Collier was commissioner of Indian Affairs from 1933 to 1945. Within his role as commissioner, Collier had to investigate problems and recommend programs to improve race relations. Collier found that this was a difficult task and process and required collaborative efforts among researchers, practitioners (administrators), and laypersons. Reflecting on his experiences, Collier noted that "since the findings of research must be carried into effect by the administrator and the layman, and must be criticized by them through their experience, the administrator and the layman must themselves participate creatively in the research, impelled as it is from their own area of need" (Collier, 1945).

To Collier, research, followed by more research, was central to the change program. Collier called this form of research *action research*. Taking effective action requires research directed to important practical problems, and the solutions must be relevant and feasible. Action research provided a means to blend researcher, practitioner, and layman interests around problem identification and problem solving.

At about the same point in time, Kurt Lewin became interested in applying social science knowledge to help solve social problems. In the 1940s and early 1950s, Lewin and his colleagues conducted diverse action research projects on topics such as inter-group relations, eating habits, prejudice, community relations, leadership training, and resistance to change in industrial settings. Lewin felt that by conducting research, people of action could generate standards to measure progress. For Lewin and his colleagues, action research was a linking of experimentation and application, and at the same time, a linking of the skills and resources of people of science and people of action. By 1960, action research had moved into diverse factory and industrial settings, and change programs by Mann, Seashore, Bowers, Katzell, Shepard, and many others had been documented in the literature (French & Bell, 1990). There was a growing realization that sound action research made strong contributions to both theory and practice in behavioral science, and greater understanding among scientists, practitioners, and laypersons. Raymond Katzell (1960), commenting on the value of periodic data collection and data feedback during an action research program at a refinery, noted its value in "pulse-taking of the organization" as well as its value in working intensively with a small group continuously collecting data on all sorts of topics and feeding them back to the group as they were needed.

As early as 1948, scientists had begun to establish categories or varieties of action research. Chein, Cook, and Harding (1948) identified diagnostic, participant, empirical, and experimental types of research. In diagnostic action research, the scientist enters a problem situation, diagnoses it, and makes expert recommendations for remedial treatment based on the scientist's experience and knowledge. In participant action research, the people who are to take action are involved in the research from the beginning, and this facilitates action taking and keeps the recommendations workable. In empirical action research, the actors keep systematic, extensive records of what they did and what affects it had. The authors noted the difficulties with this approach, including being both change agent and researcher simultaneously. Finally, experimental action research is controlled research on the relative effectiveness of various action techniques,

and this is thought to be research on action in the strictest sense of both words. The researchers saw a need to establish these categories to make sense of the wide array of interventions taking place in very different settings. This proved prophetic. In a review of the literature in 1981, Shani found over 100 reports of action research projects and over 100 theoretical statements about action research methodology (Shani, 1981).

PARTICIPATORY ACTION RESEARCH

William Foote Whyte (1989) identified two broad streams in social science research, one called *normal social science* research following Kuhn's (1962) formulation, and the second called *participatory action research* (PAR). He distinguished PAR from participatory research. In participatory research, one or more members of the organization studied become active participants during the research process, but the process itself is not linked to action. In other words, PAR follows the original Chein et al. (1948) prescription that the process includes action. In PAR, the action objectives are built into the research design from the outset. Whyte does not claim to have invented PAR, but instead finds inspiration from others, including the pioneering work by Thorsrud (1977) who reported about a PAR process that began in Norway in the shipbuilding industry. The Norwegian case resulted in fundamental changes in the design of ships and in fundamental restructuring of work and work relations both on shipboard and between ships and shore. Whyte and Lazes used a similar PAR process in Xerox to extend a quality of working life program on resolution of shop floor problems to comprehensive joint labor-management focus on regaining cost competitiveness for the entire company. Whyte notes that the focus in PAR as an alternative stream of research is on organizational change, observing events in particular cases, and getting involved in the action. He believes that theory must be solidly grounded in intensive study of individual cases, and that this requires moving away from the culture and requirements of mainstream social science research. This was noted earlier by Susman and Evered (1978) who concluded that normal social science research and action research must be evaluated on two different sets of criteria.

Participatory action research has evolved as an approach to organization development and as a process. Although there are many separate journal articles and reports on the subject, three collective works on participatory action research deserve special mention: The special issue of the *American Behavioral Scientist* (Whyte, 1989), and two editions of the *Handbook of*

Action Research (Reason & Bradbury, 2001, 2008). Whyte states that the origins for PAR are in sociotechnical analysis (Trist, 1981) and by work democracy research in Norway (Thorsrud, 1977; Elden, 1979). In PAR, some of the people in the organization or community under study participate actively with the professional researcher throughout the research process from the initial design to the final presentation of results and discussion of their action implications (Whyte, 1989). The reader will note that this definition leaves out action taking, even though Whyte's introductory comments on PAR and his own case example at Xerox provides a strong action-taking focus. At Xerox, actions by cost study teams met cost savings targets and also directly influenced changes in the research and development process as well as changes in design for construction of new plants. The PAR program at Xerox guided a process of organizational learning whereby the outside facilitator and labor and management facilitators learned from each other. Combined with other case learning's documented in the special *American Behavioral Scientist* issue, it can be seen that PAR enables researchers to study major changes within complex enterprises that position the organization for continuous learning.

Reason and Bradbury (2008, p. 4) provide the following working definition of action research:

Action research is a participatory process concerned with developing practical knowing in the pursuit of worthwhile human purposes. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and communities.

And further:

As we search for practical knowledge and liberating ways of knowing, working with people in their everyday lives, we can also see that action research is participative research, and all participative research must be action research.

For Reason and Bradbury, the difference between normal social science and PAR extends well beyond different research methods. It has different purposes, is based on different relationships, has different ways of conceiving knowledge, and relates to practice in different ways. They describe action research as a family of approaches. For some people, action research is strongly rooted in practices of organization development and improvement of business and public sector organizations. Although recognizing that PAR is also a liberationist practice aimed at redressing imbalances of power and other social justice issues, this chapter follows the organization development viewpoint.

In their review of organization development and action research occurring within health care organizations, Margulies and Adams (1982) noted an increased focus on organizations as complex systems made up of highly interdependent parts and engaging in ongoing interchanges with rapidly changing external environments. They felt that the realities for health care organizations would be extended to other sectors of the economy, and that action research experiences in health care organizations would have the utmost importance to the future practice of organization development (OD) in general.

LONG-TERM ACTION RESEARCH IN HEALTH CARE ORGANIZATIONS

Working and writing independently from Whyte and others in the 1970s and 1980s, Stebbins, Hawley, and Rose (1982) proposed long-term action research (LTAR) and programmatic action research (Stebbins & Snow, 1982) as particularly relevant for changing large, complex health care organizations. Reporting on their work at a variety of health care organizations in the 1970s, the researchers addressed issues such as comprehensive diagnosis of health care organizations through organizational climate survey feedback/discussion programs (Jones & James, 1976; James, Hartman, Stebbins, & Jones, 1977), system-wide goal-setting programs, design and start-up of medical delivery departments, personalizing the contact between patients and medical care providers, enhancing the basic quality of working life for physicians and employees, and clarifying responsibilities and accountability for patient care. Stebbins and Snow argued that the six-phase action research model proposed by French and Bell (1973) could be expanded to recognize issues associated with large-system development, to address matters of systemic alignment (Miles, 1975), and to modify management processes (planning, communications, rewards, etc.) toward central survival and growth issues facing health care organizations. In particular, within complex, multi-site health care systems, action research programs require, high involvement, must be flexible in approach and timing and must place greater emphasis on action planning and action taking. This recognizes that not all organizational units recognize the need to change, and that a unit-by-unit approach will often be more successful than a programmatic, drive-for-results effort with uniform application (Beer, 2001).

The French and Bell (1973) version of action research called for (1) initial exploration of organizational problems and improvement options with the client, (2) design of a data gathering approach, (3) collection and feedback of data to the client group, (4) discussion of the data, (5) action planning, and finally (6) action taking. French and Bell recognized that with any given program, the six elements or phases could be complex, and the sequence could recycle within the program and restart at the end. The LTAR enhancements of this model include naming the change program according to the outcomes desired (rather than by the type of research), establishing a long-term change perspective at the planning stage, providing top-level support, coordination, and program management through steering groups (either management or management and a cross-section of employees), conducting high-quality data gathering (in collaboration with outside researchers), feeding back the data in ways that will stimulate discussion and translate the information into simple language, transformation of issues into improvement projects (often requiring new fact-finding and analysis), organic management of improvement projects, high-quality evaluation of program results, and finally recycling and revitalization of programs. The authors offer extensive guidelines for all seven elements or phases, and provide case examples of iterations that spawn new programs (Stebbins et al., 1982). The authors felt that to create new organizational capabilities, programs would have to span two or more years.

DEVELOPING NEW CAPABILITIES THROUGH USE OF INSIDER ACTION RESEARCH

The importance of developing new capabilities is a matter of strategic importance in organizations of all types. The issue is matching a company's resources and capabilities to the opportunities that arise in the external environment (Grant, 1996). The "resource-based" perspective on capabilities describes the business enterprise as a collection of resources, including those that offer unique sources of advantage that are difficult to imitate (Burgelman, 1994). Resources are the productive assets within the firm, and capabilities are what the organization can do with its resources. Health care organizations have wrestled with capability issues for decades and it is no surprise that action research programs have been useful in creating capabilities such as entirely new medical delivery specialties and departments, integrating diverse specialties around thematic issues such as

treatment of diabetes, and holding down drug costs through comprehensive drug utilization programs (Stebbins & Valenzuela, 2008a).

Building on several decades of partnerships with outside action researchers and consultants, some health care organizations are prepared to conduct their own organization change programs. *Insider action research*, with managers and employees leading the way (Roth, Shani, & Leary, 2007; Fig. 2) shows particular promise in medical care and pharmaceutical settings. Both settings demand in-depth inquiry if professionals are to be convinced that specific capabilities are needed. That is, professionals in these sciences have been schooled in the value of experimental research and feel that any change should be evidence-based. Insider action research is a process that pulls together bundles of competencies, skills, knowledge, and technologies within an organization for the purpose of creating new organizational capabilities. Insider action research takes place when actions are taken, and then studied as they take place, by members of the organization (Coghlan & Brannick, 2001). The key in this definition compared to participatory action research in general is of course that the research is conducted by internal actors. Additionally, internal actors often have a deep level understanding of the business context and evolution of the business. In health care organizations, this knowledge of the business combined with skills and knowledge to conduct insider action research programs allows the organization to continuously assess existing capabilities and create new ones, particularly if the commitment is to long-term action research. Insider action research relies on learning mechanisms to help with this continuous assessment and development.

LEARNING MECHANISMS

Learning mechanisms are planned proactive features that enable and encourage organizational learning (Popper & Lipshitz, 1996; Shani & Docherty, 2003). An assumption is that the capability to learn can be designed rather than left to evolve through the normal activities of the organization. Literature on learning mechanisms identifies three foci: cognitive, structural, and procedural (Shani & Docherty, 2003). Cognitive mechanisms are the bearers of language, concepts, symbols, theories, frameworks, and values for thinking, reasoning, and understanding developed in creating new organizational capabilities. Cognitive mechanisms are management's main means for creating an understanding among employees on the character, need, and priority of new organizational capabilities, and the

learning and changes needed to realize them. In complex systems, they enable various units of the system to operate with shared meaning. In the later cases, cognitive mechanisms will be seen in discussions about context, driving forces, and goals for the different action research interventions.

Structural learning mechanisms are organizational, physical, technical, and work system infrastructures that encourage work-based learning (Shani & Docherty, 2003). These mechanisms support discourse and the sense-making entailed as individuals and groups learn from experience (Weick, 1995). Structural mechanisms include creation of new communication channels, the establishment of lateral structures to enable learning of new practices across various core organizational units, changes in roles and teams, formal and informal forums for joint exploration and debate, and networks for mutual learning. In the later cases, structural learning mechanisms are seen in discussion about steering groups, study groups, and working groups formed in the various action research programs and in organized communications that take place outside organization's formal hierarchy.

Procedural mechanisms concern the rules, routines, methods, and tools that can be institutionalized in the organization to promote and support learning (Pavlovsky, Forslin, & Reinhardt, 2001). These may include assessment tools and methods, new operating procedures, and methods for specific types of collective learning such as action learning and debriefing routines. We will rely on theory on all of the earlier types of learning mechanisms to highlight Kaiser Permanente's way of creating new capabilities through insider action research.

KAISER PERMANENTE MEDICAL CARE PROGRAM

KPMCP is one of the oldest and largest health maintenance organizations in the United States. The nonprofit health plan component of KPMCP serves the healthcare needs of members in nine states and Washington, DC, and it owns and operates Kaiser Foundation Hospitals along with diverse support units. Within Southern California, the health plan is structured as a group model HMO. It contracts with physicians in the Southern California Permanente Medical Group to provide healthcare services to 3 million members. Historically, the Southern California region has been dominant in creation of innovative change initiatives, and the health plan's Pharmacy Operations division has often been the first to try new programs. The pharmacy division is composed of California-wide strategy and operations

central offices, a major central prescription refill facility, a mail-order pharmacy, warehouse facilities, centralized staff services units, and diverse medical center inpatient and outpatient pharmacies. The outpatient part of the organization dispenses 20 million prescriptions a year, and the inpatient pharmacies perform wide-ranging functions that support hospitalized patients. Pharmacists, technicians, pharmacy assistants (clerks, cashiers), and diverse support staff work in locations throughout Southern California. The Pharmacy Organization's facilities mirror KPMCP medical facilities; there are big inpatient and outpatient pharmacies at all major medical centers as well as 8–10 general and specialty pharmacies within area medical centers and satellite outpatient medical offices. Most of the change initiatives discussed later have mainly impacted outpatient pharmacies.

METHODOLOGY

The methodology for this chapter relies on three sources of data: archives related to the diverse change interventions reported later; prior publications concerning the three major cases discussed in later sections; and finally selected interviews with managers and employees associated with the interventions. In the case of archives, the authors have reviewed extensive written summaries (evaluation reports, records of meetings, survey results, and related records) connected with the selected interventions. For the case examples, the authors used interviews and reflections published by both inside and outside researchers connected with the interventions.

LONG-TERM INSIDER ACTION RESEARCH AT KAISER PERMANENTE

The KPMCP in Southern California has a long history of conducting organization development programs, with emphasis on long-term action research. Although the first programs conducted were in Southern California – wide for the entire program, most of the action research programs reported in the literature occurred in the medical group and pharmacy operations divisions of the program. The first organizational study of KPMCP occurred in 1973 through a partnership between Michael Stebbins, who was then KPMCP's organization development coordinator for Southern California, and Larry James, then at Texas Christian

University's (TCU) Institute of Behavioral Research (Jones & James, 1976). At the time, one of the institute's research tracks focused on theory building and measurement of organizational climate. Stebbins and James formed an inside/outside research team (Bartunek, 2008) that adapted TCU climate surveys to the Kaiser health care setting. This research spanned three years (James et al., 1977) and was the first action research experience for the pharmacy component of KPMCP. Table 1 provides a complete listing of improvement programs conducted within pharmacy operations from the original 1973 study to the present time. Until approximately 1990, improvement programs were conducted through inside/outside researcher partnerships. After that point, most programs have been planned and carried out by managers and staff executives as inside action researchers. We focus on three significant action research programs that explicitly deal with issues related to conducting long-term insider action research. The rationale for selection of the three programs is not that they are representative of all the complete listing of interventions, but instead that they provide strong foundations and models for conducting long-term, insider action research.

TACT

The organizational climate improvement programs of the early 1970s, along with forces outside KPMCP's control, led the pharmacy operations division to create a long-term action research program called Today's Action Creates Tomorrow (TACT) (Stebbins et al., 1982; Stebbins & Valenzuela, 2004, 2008b). TACT was an attempt to heal soured relationships between employees and management that stemmed from the devastating strike of 1975–1976 (Table 2). It was also an opportunity to go beyond manager-focused climate research to involve all employees (pharmacists, assistants, clerks, etc.) in an in-depth look at pharmacy resources, capabilities, and processes. The TACT program was a partnership among internal researchers, outside researchers, a cross-section of managers, and a large number of union employees. The program was created to take actions that would improve services for KPMCP's customers whereas also improving the employee work environment. The name and slogan, "Today's Action Creates Tomorrow," shows the action bent of this program. It involved 90% of pharmacy employees (at the time, over 450 employees and managers) in diagnostic and action-taking teams.

The kickoff for TACT was a conference involving activists (employees active in the union, opinion leaders, key players at the local levels) who

Table 1. Summary of Change Interventions within Pharmacy Operations, 1974–2007.

Change Intervention Name	Essence of Change
Organizational Climate Insider/Outsider Action Research Program assisted by Larry James and Michael Stebbins and eight external OD consultants (1974–1975)	Scientific, organization-wide diagnosis of issues in the KPMCP working environment with selective follow-up programs to address specific issues
TACT Insider/Outsider Action Research Program assisted by Jack Hawley, Michael Stebbins, and six external OD consultants (1975–1976)	Task forces implemented diverse changes in structure and organizational processes.
Insider/Outsider Project to create Outpatient Pharmacy Computer System (1980–1981)	Installation of computer system on a location by location basis
Insider Action Research Quality of Service Improvement Program (1980–1984)	Improved patient and member satisfaction along with establishment of Pharmacy Week within KPMCP
Organization Redesign assisted by McKinsey and Company, Management Consultants (1996–1997)	Downsizing, restructuring of pharmacy organization in line with formation of KPMCP California Division
Performance Improvement Program assisted by McKinsey and Company, Management Consultants (1998–2001)	Discovery and implementation of best practices within pharmacy outpatient operations
Clinical Management of Pharmaceuticals assisted by McKinsey and Company, Management Consultants (1997–Present)	Pharmacy-led effort to reduce drug costs and improve quality
Drug Utilization Action Team (1999–Present)	Physician-led effort to improve drug therapies and reduce costs
Central Refill Pharmacy (1997–Present)	Creation of an automated refill facility to reduce drug volume pressures on local pharmacies and to reduce refill costs
Over-the-Counter (OTC) Drug Sales (1998–Present)	The clinic pharmacies began to stock and sell over-the-counter drugs as a new form of revenue
Integrated Clinical and Administrative Record System (2006–Present)	The pharmacy organization implemented its portion of KPMCP's new automated clinical record system
Central Mail Order Pharmacy (2005–Present)	The pharmacy organization established a separate mail order facility with cutover to the new Central Refill Pharmacy II facility
Reorganization back to Medical Centre Concept (2007–Present)	The KPMCP organization returned to an earlier model of organizing by medical centre area

Table 2. Snapshot of Insider Action Research Programs, 1975–2008.

	Driving Forces	Goals	Key Actors	Structural Learning Mechanisms	Outcomes
TACT 1975–1977	Healing poor MGT/ employee relationships	Improve services and employee QWL	Inside/outside AR professionals Top management team Representative employees	MGT steering group Parallel learning mechanism	Diverse changes by task forces Communication forums
PIP 1998–2001	Rising costs and decline in market share	Reengineering to cut costs	Upper managers Representative managers	Top steering group Integrated learning mechanism	Dramatic improvement in productivity Reduced QWL
CMOP 1997–Present	High drug costs	Reduce drug costs Develop new strategies for drug utilization Annual change initiatives	Pharmacy MGT Drug info experts Drug education coordinators Physicians	Parallel learning mechanism Pharmacy therapeutics committees	California-wide improvement in drug utilization Ongoing program for learning and change
DUAT 1999–Present	Success with CMOP Countering drug company advertising	Evidence-based changes in clinical practice Annual change initiatives	Physician leaders Physician champions Drug education coordinators	Parallel learning mechanism Little DUATs at each medical center	KPMCP has lowest drug costs in industry Documented quality improvements

gathered at an off-site location to evaluate the post-strike working climate and to plan the change intervention. During the conference, a team of inside and outside researchers led by Jack Hawley (Stebbins et al., 1982) trained over 30 employees in process consultation and group sensing methods so that they could conduct meetings with their peers. At the outset of training, the researchers faced high skepticism about the manager-formulated goals, the ways of selecting employees for the program, data gathering methods, and whether TACT members were ready and able to get behind program goals. The researchers used this opportunity to highlight the opposition that members would face in the field, and used the members as subjects for initial sensing. After some rather heated and dramatic discussions between top managers and TACT members, the participants began to try out the methods with their trainee peers. The training lasted two weeks including trainee practice in the field, and debriefing afterward with the researchers. All sensing was conducted by two-person teams of employees with their respective peers at different locations and recorded into a standard format. A pattern was established whereby employees became co-researchers along with their normal roles within the organization and they were to carry these dual roles throughout all stages of the action research program. Following this organization-wide sensing, over 150 employees from diverse locations throughout Southern California gathered in an empty hotel ballroom over 2 days to consolidate the data and to interpret the meanings. The employees as co-researchers led the way in funneling data from all locations into topic categories and then uncovering themes. Action-taking task forces were then created to focus on specific areas of change.

The task force phase of TACT began immediately after the interactive hotel conference meetings. Consistent with LTAR theory, each of the task forces restarted the action research cycle by dialoguing with top managers, setting task force goals, conducting additional data gathering in a focused way, and pursuing action. TACT operated with a structural learning mechanism (SLM) composed of upper managers and task force leaders, assisted by inside and outside action researchers. The task forces acted as cross-functional, cross-location, and cross-level action teams to put the changes in place in cooperation with regional and local management. Periodic status review meetings involving the SLM and the top management team kept the task force work on the front burner. The TACT program lasted three years, bringing about improvements in facilities design, employee-patient relations, methods of drug pricing, and employee-management communications. One of the outcomes was creation of a network of communications forums throughout Southern California. The

forums have been extensively covered in the literature on topics such as long-term action research (Stebbins et al., 1982), communications forums (Stebbins & Shani, 1988), structural learning mechanisms (Stebbins & Valenzuela, 2004), and collaborative management research (Stebbins & Valenzuela, 2008). The regional communications forum and the local communications forums have operated continuously since 1977 as a separate voice for problem identification, problem-solving, and creation of educational, social, and community programs. The forums exist apart from the pharmacy operations hierarchy but they are also linked to the hierarchy through manager representatives. Most of the upper-level managers of pharmacy operations have either had direct experience with the original TACT program, or have had important experience with one or more of the communication forums operating in Southern California.

During the 1980s and 1990s, managers in pharmacy operations conducted numerous free-standing change programs (see Table 1) apart from TACT. In the early 1980s, it was common to appoint a senior line manager as “shepherd” for the change effort, to provide inspiration, coordination, and a formal link to the top management team. Also, as with TACT, the organization used structural learning mechanisms to orchestrate action taking and to evaluate results. Managers tried to find the best-qualified employees to work on the change efforts, regardless of time and location obstacles. Through these processes the organization began to build a cadre of inside employee/researchers. Kaiser leaders and employees became skilled at planning interventions, identifying issues associated with change through group sensing and other methods, facilitating meetings, resolving conflicts, and implementing changes. The later two cases document the shift from a combination of inside/outside action research approach to insider action research orchestrated primarily by managers.

The Performance Improvement Program

In 1996, KPMCP began to experience severe competitive pressures as other HMO's and health care providers began to take away market share. As KPMCP lost members and experienced rising costs, the organization faced deficits and budget cutting. The organization began to consider radical options such as divestiture of hospitals, alliances with competitors, restructuring, and aggressive cost cutting. On advice from McKinsey management consultants (advisors to the entire KPMCP organization), Kaiser consolidated its Northern and Southern California regions. Within

pharmacy operations, McKinsey consultants helped managers identify common types of pharmacies that could be compared on staffing and other metrics. The pharmacy management team then began to identify performance improvement options (Stebbins & Valenzuela, 2004). Insider action research by managers through a pharmacy improvement program (PIP) was thought to be one answer.

The initial program planning work for PIP was a small steering group composed of the quality and operations leader for California, the outpatient practices coordinator, and a PIP coordinator. All of these positions were relatively new, and they were filled by managers with experience at operating levels. This structural learning mechanism was an integrated mechanism (Stebbins et al., 1998) tied directly to the hierarchy rather than existing in parallel like the communications forums. However, this group was expanded in the second phase of the action research program to include lower-level managers and supervisors drawn from throughout California. As an insider action research group, the managers deployed themselves to observe facilities both inside and outside Kaiser Permanente to understand why certain sites had achieved productivity, quality, and customer satisfaction distinction compared to lower performing facilities. Through observations and discussions with site managers, the inside researchers identified over 100 "best practices" at the high performing facilities. Following this data gathering work, the study group was disbanded, and the steering group conducted pilot tests of best practices at low-performing pharmacies to understand the potential for improvement. During the pilots, selected changes were tried, evaluated, and modified to reflect experience and learning. The announced process was "define it, try it, and fix it" as a change cycle. The fourth phase of the action research program involved establishment of specific goals for all categories of pharmacies, additional experimentation, and widespread implementation. The specific goals were the cognitive learning mechanisms for the insider action research program. Goals were established for patient waiting times, completion of all prescriptions on a same-day basis, and patient satisfaction standards as measured by mandatory surveys. The PIP implementation schedule focused first on pharmacies that had already participated in the pilot projects as well as on other sites where both the likelihood of improvement and size of improvement were high.

To facilitate the action research program, the steering group created six 4-person PIP integrated teams to be deployed to each pharmacy. The integrated teams were composed of different levels of management drawn from each medical services geographic area. The integrated teams worked with local managers to determine facility layout, information technology,

training, equipment, and staffing needs. With these lists in hand, pharmacy leaders at each medical services area quickly secured changes in facilities, systems and equipment needed for introduction of best practices. Building on prior work with pilot pharmacies, best practices were then applied at each pharmacy in relatively straightforward ways. At the beginning of each PIP conversion cycle, each location had a dinner meeting with employees to outline the PIP goals and to discuss what would occur over the four-week conversion time period. The PIP integration teams explained that by following the PIP process, patient wait times would fall, and accordingly, patients would be more satisfied with their pharmacy visit. Under PIP, all prescriptions would be filled by the end of the day or the work shift, and the collective benefits would improve employee quality of work life. The PIP action research program eventually covered all 200 outpatient pharmacies in Southern California.

Reflecting on the action research process, PIP leaders felt that the key to success was focusing on learnings from first-adopter experiences, as well as selecting a few drivers that managers could control at the local level. One driver was to increase the rate that prescriptions were completed through a shift to team-based prescription filling. To accomplish this, designated pharmacists handled exceptions such as phone calls, patient consultations, and other potential interruptions so that prescription-filling teams of pharmacists and technicians could focus on improving throughput time as well as improving accuracy. Employees also had the ability to rotate in and out of filling teams and into other roles to allow for work variety during the day. The site teams worked with each manager to discuss the various drivers, train employees, measure performance, and provide employees timely feedback. Some of the impetus for change came through a pattern of successful PIP implementations, as the site teams and managers began to rely on specific actions adopted at the same types of pharmacies. The site teams felt that with ingenuity, most obstacles such as more difficult mixes of prescriptions at specialty pharmacies could be overcome, bringing all pharmacies closer to established standards. Local efforts required considerable coaching and collaborative efforts among site teams, local managers, and employees. This collaboration allowed relatively quick adoption of best practices at most locations. In a few instances, maximum PIP benefits could not be achieved due to extensive facility remodel and capital equipment considerations. When new standards could not be maintained at certain locations, new studies and "re-PIP" projects were conducted on a scaled-down basis.

By the end of the formal PIP program in 2000, pharmacy operations had exceeded all goals. In Southern California, 92% of prescriptions were

processed in less than 15 min, a collective 47% improvement. Median processing time for prescriptions was 9 min, down from 19 in the pre-program time period. Since waiting time is the single best predictor of customer satisfaction, this was a significant achievement. Patient satisfaction scores also rose significantly. Cost per prescription fell by 35 cents, at a time when drug costs from manufacturers were increasing rapidly. Quality as measured by processing errors, also improved by 55%. The pharmacy organization's PIP program was formally recognized within KPMCP as a model for reengineering and performance improvement.

The intense focus on productivity and quality had unintended side effects. Although it is clear that PIP led to measurable reductions in waiting times, improved patient satisfaction, lower prescription processing time, and overall, reduced costs, over time there were adverse impacts for managers and employees. Supervisors of each of the pharmacies were now working closely with employees to drive the changes, rather than performing managerial work. Since managerial duties also continued, this led to added stress conflict about where to focus attention during the day. In addition, in contrast to PIP goals, which included "a good environment for our employees," employee perceptions of quality of work life began to suffer. Surveys conducted at the communication forums after PIP showed that employee stress, concerns about adequate staffing, lack of employee influence on decisions made in the workplace, management/employee communications, and job satisfaction became significant issues at many locations. This is understandable when one considers that the organization was in crisis, and employees were asked to do more with fewer resources and to focus on a high level of service to patients. The unintended side effects cited earlier cannot be found in the official PIP reports on program outcomes, but rather were identified by the communications forums and by KPMCP's periodic employee "people pulse" surveys. Following PIP, the SLM leaders conducted some interviews with employees and managers concerning their perceptions of program success. PIP leaders reported that "everyone interviewed had positive things to say about PIP," and "even the most critical interviewees felt that PIP had been worthwhile." Although everyone might have recognized the gains for patients, there was a perceived loss of influence and control by many managers and employees. This raises some interesting questions about PIP as a reengineering program and as an insider action research program. In particular, there are apparently issues about the ways that PIP organizers carried out dual roles as project leaders and researchers, and issues concerning the metrics used to evaluate PIP as

an improvement program. These points are explored in the discussion section that follows our cases.

Clinical Management of Pharmaceuticals

Similar to PIP, the Clinical Management of Pharmaceuticals Program (CMOP) began during the period of economic crisis (Stebbins & Valenzuela, 2008a). PIP formally lasted three years – but continued in the form of PIP work methods and standards and occasional “re-PIP” projects. In contrast, the CMOP action research program started on a small scale and evolved to become an integral part of KPMCP’s ongoing drug utilization efforts. In 1997, a few pharmacy executives and drug information staff members attended a “summit meeting” to share concerns about escalating drug costs within the context of continuing company losses. In terms of cognitive learning mechanisms, there was an attempt to highlight and define the change problem, to investigate the extent to which needs were apparent in different parts of the pharmacy system, and to set overall program goals. The focus included reducing costs and improving quality. At this point, management was less concerned about building a new organizational capability and more concerned with relying on existing players to engage on drug utilization problems. Specifically, problems were framed primarily in terms of the pharmacy division within KPMCP and what the drug education coordinators and other pharmacy staff members could do to facilitate change through the normal pharmacy hierarchy. There was little attention to physician participation in the program. However, pharmacy leaders soon learned that operating through the regular pharmacy hierarchy was inadequate. An expanded action research program would have to be created that would rely on a variety of learning mechanisms, and it would have to involve other parts of pharmacy operations and the KPMCP organization.

In 1998, pharmacy managers, operating as inside action researchers, created the first CMOP SLM. It was to be a parallel learning mechanism (Zand, 1974; Bushe & Shani, 1991) similar to the one used to guide TACT. The CMOP SLM was composed of representative pharmacy leaders, drug information experts, purchasing experts, and drug education coordinators brought together from throughout California. In contrast to TACT, where both outside and inside researchers were needed, the CMOP program relied solely on people having dual roles as researchers and employees. To begin

the work, SLM members solicited ideas broadly within pharmacy locations to identify possible cost and quality interventions focusing on drug conversions (e.g., switching from one medication to another). With the options identified, the action researchers then pursued the implications of each change in detail, documenting potential impacts and obstacles to implementation. In broadly considering drug substitution options, the group also developed strategies for new drugs entering the market, especially those having high costs or drug management difficulties. After drafting recommendations, the SLM group members met with selected stakeholder groups (pharmacy leaders, physician leaders, local and regional pharmacy and therapeutics groups) to press toward action. The initial process was quite sequential. Reflecting on efforts in the first few years, SLM members felt that the pharmacy organization drove the entire process, and that while the overall goals and targets were sound, the deliberations with physician providers were inadequate to achieve maximum impact. They also observed that the lack of dialogue and coordination across different pharmacy and medical group organizational boundaries led to less than optimal decisions. For example, in a few cases, physicians in the medical group were asked to make a change, and then were asked to shift back to drugs used earlier – confusing both patients and physicians.

Despite the early problems, the initial CMOP effort was impressive, as it resulted in the first-ever California-wide plan for drug conversions with specific pilot initiatives to convert specific drugs. It also created a sound parallel learning mechanism to coordinate the work, and new procedural learning mechanisms such as changed protocols, new metrics, methods of monitoring progress, and processes for following up on patient results. More importantly, as inside action researchers, SLM members learned from successes and mistakes and became aware of the need to re-examine the way the overall CMOP action research program was conducted on an annual basis. The ability to regularly critique processes and results was established early in the history of the change program, creating built-in reflection and adjustments.

By 2007, the annual CMOP program had evolved to be a more potent vehicle for change. The action research program was expanded to include uniform goals and targets for all pharmacies, guidelines for better prescribing and for improved patient compliance, reliable performance tracking at each medical center, prescription to over-the-counter drug conversions, prescription-to-prescription drug conversions, aggressive attention to use of generic drugs in the KPMCP drug formulary, coordination with medical group providers at all levels, and reduced variability in prescribing patterns

across medical center and medical office facilities. Chiefs of medical services as well as a drug utilization manager were added to the SLM membership, and these actors were vital to improving the CMOP program capabilities listed earlier.

Today, the CMOP SLM is a broad-based learning mechanism composed of representatives from drug information and drug purchasing, and includes drug education coordinators, chiefs of medical services, and regional pharmacy and therapeutics committee members. The biggest change was inclusion of physicians in the SLM and involving them at all stages of the action research cycle. The reorganized SLM now sets the change initiative targets and works with the drug use manager to tightly orchestrate annual change initiatives. Additionally, the drug use manager acts as "quarterback" or team leader on the administration of changes throughout KPMCP.

The CMOP action research cycle begins with an annual brainstorming event that sets the agenda for drug change initiatives. It ends with drug education coordinator and provider work on behalf of patients at the local levels. Both the CMOP SLM and the network of drug education coordinators play important roles in the action research process. The CMOP action research cycle starts with a look at utilization trends, the clinical evidence, and research literature on drugs in the marketplace. The SLM members spend a day filling a board with possible conversion initiatives. This brainstorming occurs before any attempts to take specific initiatives to other formal groups such as the peer body of drug education coordinators or medical group chiefs of services. This process results in longer time horizons and additional checks and balances in that the CMOP SLM can postpone decisions on drug conversions until the evidence for change is clear and until needed resources are available.

The drug education coordinator perspective on the annual CMOP SLM process and eventual action is important, since coordinators provide key linkages at operating levels. A great deal of discussion occurs at the front end of the action research cycle, and drug education coordinators must be in close touch with their physician contacts at all stages. After decisions are made, the drug education coordinators group develops the drug conversion tool kits. The drug education coordinators meet monthly to monitor progress on specific initiatives under way and to make course corrections where progress is not achieved. There is also coordination with pharmacy and therapeutics committees who provide oversight and approval for conversion initiatives as well as the formulary. Since scorecards are developed for each initiative, it is easy to track which physicians and pharmacists are helping with a particular conversion. According to the

coordinators, 90% of drug conversions are now done in the same way. The combination of cognitive, structural, and procedural learning mechanisms within CMOP has created a dynamic capability for renewal on a long- and short-term basis within the KPMCP organization.

As with PIP, CMOP is not entirely problem-free. For example, the 2007 reorganization toward a geographic area medical center concept increased the number of drug education coordinators in Southern California. The combination of new drug education coordinators and rapidly growing CMOP drug initiatives led to concerns about their voice in the annual CMOP action research process. Disenchanted with what they felt was top-down orchestrated change, some coordinators asked for participation by all drug education coordinators in the CMOP SLM. It was noted that this would more than double the size of the SLM and upset the balance of participation. Nonetheless, problems here underscore the importance of drug education coordinators as change agents within the annual CMOP program.

For the past five years, the CMOP program has realized cost savings of approximately 5% per year in the face of rising drug costs by drug company suppliers (Stebbins & Valenzuela, 2008a). Performance scorecards are now in place by pharmacy to track progress against goals for generic drug substitutions, dosage conversions, within-class substitutions, and cross-class substitutions. Most pharmacies achieve 90% conversions on specific drug initiatives within a six-month time frame, showing extraordinary cooperation among physicians and pharmacists.

DRUG UTILIZATION ACTION TEAMS

Building on the successful CMOP experience, the Drug Utilization Action Team (DUAT) action research program began in 1999. Physician leaders recognized that market trends such as direct advertising to customers by drug manufacturers were adversely affecting drug utilization within KPMCP. Although CMOP was highly successful on some drug utilization fronts, CMOP did not address the issue of wide variations in provider prescribing habits on matters such as use of antibiotics during cold and flu seasons and using non-preferred drugs. The essence of the new approach would be extension of "evidence-based" clinical practice to drug use management.

The DUAT challenge from a cognitive learning mechanisms point of view was to counter drug company advertising and drug representative

contacts with physicians. This was to be accomplished by creating an action research program that would establish Southern California-wide priorities on prescribing changes, selecting specific initiatives as was already done in CMOP and overseeing information campaigns that would make headway on topics that were clearly supported by clinical evidence. The two most important criteria in selecting initiatives were variations in prescribing performance and high costs associated with the prescribing patterns. It should be noted here that most DUAT initiatives would be for discretionary drug classes where there are multiple viable options available to physicians. The idea was to provide information, tools, and techniques (procedural learning mechanisms) to physicians to enable them to select the right drug for the patient. For example, if drug A is greater or equal to drug B in drug efficacy, and drug A costs less, then drug A is preferred.

The structural learning mechanism for the program was to be called DUAT – drug utilization action team. DUAT was to be a parallel learning mechanism composed of geographic area medical directors, chiefs of specialty services, as well as a few leaders from pharmacy operations. This structure provided linkages to all the main players responsible for drug utilization patterns. At the next level, within the medical centers, drug education coordinators would again assist with all aspects of implementation along with physician leaders. In contrast to CMOP, the DUAT effort was to be physician-led and would emphasize the importance of debate and consensus to assure that local physician commitment to each initiative would be secured. The drug education coordinators were to be instrumental in distributing data to all stakeholders and engaging providers in discussions of drug alternatives and prescribing patterns. Details can be found later in the discussion of learning dynamics.

The action research approach was participatory insider action research. The first phase of the annual process is preliminary analysis work by medical group leaders and pharmacy drug utilization management leaders. Pharmacy leaders analyze KPMCP drug utilization data as well as new clinical evidence from the literature and new drugs or generics entering the market, and then prepare their findings for review by top medical group leaders. The combined group then presents possible drug initiatives to the DUAT SLM. The proposed initiatives include target treatment methods, patient populations, monitoring methods, and projected results. Typically, DUAT selects 8–12 initiatives per year. The initiatives last two or more years or are classified as “ongoing.” The campaigns are phased-in during the year and are led by physician champions at each medical center who work

with pharmacy representatives to orchestrate each initiative. In effect, there are local or “little DUATs” at each medical center.

Phase two emphasizes choices among drugs and treatments, and examination of clinical evidence guided by the relevant clinical experts. Since the initiatives are focused, the local DUAT teams and physician champions usually work with one or a few medical departments rather than the whole medical center. The approach is evidence-based, and relies on a sophisticated database that allows providers to see collective laboratory results and prescription use, patient outcomes, and feedback. The local DUATs are assisted by the drug education coordinators who design and implement education campaigns.

The DUAT learning dynamics are worth special mention. The drug education coordinators are in the forefront of education and communication campaigns to, for example, discourage inappropriate use of antibiotics during cold and flu seasons. Close partnerships among drug education coordinators, physicians, and staff pharmacists at the local level are critical to achievement of DUAT goals. Doctors from the relevant specialty areas take the initiative in providing evidence and information to medical staff. The information campaigns include video, teleconferences, extensive printed materials, emails, and mass-marketing techniques. Physicians are also given materials appropriate to each initiative that help educate patients about the medications and rationale for particular treatment methods. Providers receive feedback from DUAT leaders or the drug education coordinators about departmental and individual performance relative to DUAT goals. For example, an e-mail to a physician might note that “six of your last prescriptions for ‘diagnosis X’ were for non-preferred drugs.” The object is cost savings where viable alternatives exist, and in some cases, cost avoidance – where negative trends are arrested and current utilization levels are maintained. There are no individual or medical group monetary incentives for participating in DUAT, but all parties recognize the value of holding down drug costs and making sound prescribing decisions so that overall costs to KPMCP members remain relatively low. There are also examples of improved patient care that do not involve cost savings. An example is the DUAT goal to reduce use of specific medications known to have adverse outcomes in elderly patients.

The long-term DUAT action research initiatives, combined with CMOP and other pharmacy operations change initiatives (Table 1), result in the lowest per-member, per-month prescription costs of all health plans enrolled in the NCQA Quality Compass of 2007 (KPMCP Southern California is best in the United States).

DISCUSSION: THE PHARMACY WAY OF CONDUCTING ACTION RESEARCH

Although the pharmacy operations division of KPMCP has relied in the past on both internal and external action research professionals, the most recent action research programs have been conducted by managers and physicians without significant consulting advice. The cases show that managers have learned to diagnose the need for new organizational capabilities, they have learned to establish learning mechanisms to guide and support change programs, facilitate program implementation, and evaluate and restart programs as needed. Insider action research is the methodology for bringing about change, and change programs for the most part have followed a high-involvement or participatory action research pattern. Managers who are responsible for the core work and people who must live with the work are involved in the change process. Moreover, learning mechanisms have played a strong role in creating KPMCP's new organizational capabilities.

As shown in Fig. 1, action research programs can be evaluated by separately focusing on the nature of the research that takes place, the types of actions taken, and the nature of participation by different stakeholders (Hughes, 2008). Moreover, all three can be evaluated together in terms of dynamics associated with participative action research. The insider action research programs conducted within the pharmacy division demonstrate some differences with respect to research. In each of our cases, either in preliminary planning or early in the change program, significant data gathering and data interpretation occurred. In the original TACT program, which was limited to the pharmacy component of KPMCP, pharmacy leaders saw value in involving a microcosm of the organization in data gathering and data interpretation. The TACT program incorporated innovative group sensing methodology that sought to reach all employees. Additionally the approach was successful in documenting the voices of all employee stakeholders. However, the TACT program was not envisioned as a collaborative management research partnership that would also contribute to knowledge. The program did not have a research track to test theory on orchestrating action research programs or other behavioral sciences theories. This trend continued with PIP and other programs and will be discussed further. The TACT program established a research approach that emphasizes sound documentation and largely post-hoc case research methodology. Although sound documentation eventually led to research publications (Stebbins et al., 1982) in terms of Fig. 1, the program mainly

Fig. 1. Relationships among Participation, Action, and Research.

focused on workplace improvements and high participation, with relatively low attention to research.

Within a participative action research context, “research” means different things to different participants. Managers as insider action researchers have primarily been concerned with the targets for change, providing adequate learning mechanisms, providing adequate staffing for change programs, and making sure that change programs address real needs. They have not been concerned with theory connections, nor have they been particularly anxious to share the “Kaiser story” with others. All three of the more recent cases – PIP, CMOP, and DUAT – relied extensively on upper managers to research the situation and determine priorities and appropriate targets for change. In the KPMCP working environment, it is important that changes in professional practice are evidence-based, and cognitive learning mechanisms (concepts, symbols, values for thinking, etc.) have

emphasized communications about gaps between where the organization is and where it should be. All of the cases have stressed employee participation and action taking that would improve productivity and health care outcomes. The cases show that managers as insider action researchers have been preoccupied with establishing the need for new organizational capabilities and using action research programs and learning mechanisms to create new capabilities. Research has focused on needs and documenting new capabilities and outcomes.

All four cases relied on structural learning mechanisms to create and guide action research programs. Through the TACT program, pharmacy leaders began to appreciate the value of structural learning mechanisms. Without a history of success with the TACT study group, it is unlikely that the organization would have moved toward creation of the communications forum as a permanent (30-year), system-wide learning structure within KPMCP. In all four cases, structural learning mechanisms remained in place throughout change program phases (see Table 2). In PIP, the structural learning mechanism was composed of managers only, and it was shown that this likely led to a somewhat narrow focus on productivity and customer satisfaction, at the expense of employees and management. In contrast, the structural learning mechanisms for CMOP and DUAT are more representative and have built-in ability to pursue balanced outcomes. Structural learning mechanisms for CMOP and DUAT have evolved to have wider participation, and these SLMs set the agenda for annual change initiatives involving pharmacists and physicians. Both CMOP and DUAT rely on SLMs that cross-organizational boundaries to create unity in what would otherwise be fragmented approaches to change. Evidence, gathered on both the pharmacy and medical group sides of KPMCP allows members of the SLMs to consider short- and long-term solutions to major prescribing and drug utilization issues.

Procedural learning mechanisms are rules, routines, methods, and tools that can be institutionalized to promote and support learning. Procedural learning mechanisms created in PIP, CMOP, and DUAT are extensive and when combined with insider action research processes provide potent support for change. The cases show how these programs follow predictable change initiative phases with clear actor responsibilities to carry out goals, involve physicians and employees in deliberations, establish timetables, construct training and media packages, conduct training, and otherwise orchestrate changes. All programs recognized the value of multiple media and communications and the value of follow-up at the work unit and individual levels. The dual role of leaders as managers and researchers in

following through with procedural learning mechanisms will be discussed further.

DISCUSSION: APPLYING INSIDER ACTION RESEARCH THEORY

Roth et al. (2007) provide an excellent conceptual model for evaluation of insider action research cases, and we first discuss the model and then apply it to our four cases. The model (Fig. 2) combines theory on strategy, participatory insider action research, and learning mechanisms in pursuit of the creation of new organizational capabilities. The forces and factors considered in creating new organizational capabilities include the internal and external business contexts, the perceived need for new organizational capabilities, the features of insider action research, and the types of learning mechanisms described earlier.

***Insider Action Research Issue:**

- Pre-understanding
- Role duality
- Political system
- Long-term perspective
- Managers as action researchers
- Quality of data gathering

Fig. 2. Modified Roth, Shani, Leary Models of Insider Action Research.

In brief, the Roth systems model suggests that variables in the internal and external context create perceived needs for new organizational capabilities. This leads to creation of insider action research projects. Projects rely on learning mechanisms and processes that if successful will result in new organizational capabilities. In other words, the development of new capabilities is enabled by the nature and dynamics of the inside action research projects and the learning mechanisms and processes that are developed.

The Roth model assumes that leaders and inside action researchers are intimately familiar with the culture, the formal structure, the informal structures, and how to get things done in the company. This is the familiar argument concerning why inside consultants are sometimes better than external consultants in facilitating change (Block, 2006). The inside researcher has easy access to people and information, and also knows the "hot issues." The Roth paper authors combine these factors under the title of "pre-understanding." Pre-understanding is actually a broader concept, which includes peoples' knowledge, insights and experience before they engage in a research program. This would include theoretical understanding of organizational dynamics usually acquired through education, training, and experience in action research (Coghlan & Brannick, 2001). Pre-understanding by insider action researchers in our four cases could be seen as either strong or weak under the different circumstances. Insider action researchers in our last three cases did not have all the requisite education and training in action research but had experience through participation in prior change programs and processes. Lack of knowledge and training in the PIP case might explain why the insider action researchers did not include employee perceptions as an important metric in the productivity improvement program. The PIP insider action researchers did not conduct a deep analysis of employee reactions during the interview evaluation of the program. Coghlan and Brannick (2001) note that there are disadvantages to being close to the data: "When you are interviewing you may assume too much and so not probe as deeply as if you were outsiders or ignorant of the situation." In sum, pre-understanding is what the insider action researchers bring to the research process.

The second issue in the Roth model concerns the insider action researcher role, which is at least a dual role (Coghlan & Brannick, 2001). Role duality refers to difficulties associated with organizational and researcher roles. In our first case (TACT) the insider action researcher's sole job was that of an internal consultant, paired with outside consultants, a relatively uncomplicated situation. However, in the last three cases, managers acted as insider

action researchers along with their normal organizational role. When managers are the insider action researchers, rather than trained professionals, we have the potential for greater role confusion and more questions about depth of investigation, bias, reflection, and related matters. In particular, in simultaneously taking on a project leadership role and a research role, there may be built-in conflicts. The project leadership role may be all-encompassing, leaving little time for research. Additionally, the research role requires a more neutral and theoretical stance about what is taking place. There is a tendency to follow the project leadership role to the exclusion of objective research. Homa, an executive, notes that

it is hard to switch psychologically from management responsibility to research. Over time, you need to balance the achievement of being a manager and working through others with the solitary work of a researcher. (Coghlan & Brannick, 2001, p. 50)

The third insider action research issue in the Roth model concerns acting in the political arena. In each of our four cases, we can identify three or more managers who came together to recognize the external and internal forces and to conduct preliminary planning. These managers were either top executives or closely aligned with CEO's of pharmacy operations and the medical group. Accordingly, the usual political considerations discussed in the literature about conducting insider action research were either not applicable or of low concern. For example, many issues and sensitivities, such as finding internal sponsors for research or having the courage to confront managers with data that they do not want to hear, were not encountered. Moreover, the pharmacy division CEO has continuously supported data gathering and publication of research about the organization. In each case, project leaders were upper managers acting on behalf of CEOs. For CMOP and DUAT, upper managers continue to play key roles in the programs, especially at the front end. Annual action research programs begin with deliberations about change initiative targets. Afterward, concern is with the insider action researchers: the project leaders and other actors who create and carry out annual change initiatives. The political issues that insider action researchers face relate to crossing organizational boundaries rather than approval for or commitment to change programs.

At KPMCP, project leaders and other actors in the CMOP and DUAT programs scan the external and internal environment to identify targets for change. Since there are ongoing lists for potential drug conversions and potential prescribing targets, it is reasonable to question the research basis for change initiative targets. The amount of internal sensing and external

research going into creation of a case for change seems to vary with the change initiative target. Actors at operating levels of CMOP and DUAT are supposed to be in touch with provider and employee needs at the individual provider and medical department levels, and this requires crossing organizational boundaries. For example, it is critical that drug education coordinators know what physicians will and will not support in the way of drug utilization initiatives and maintain close contacts with physician champions and local pharmacy and therapeutic committees during change initiative implementation. It seems that both CMOP and DUAT are highly dependent on drug education coordinators as insider action researchers to be in touch with needs, to carry out actions, and to monitor results. As discussed in the earlier section, all four cases show strength in creation of learning mechanisms. In particular, TACT, CMOP, and DUAT have created strong structural learning mechanisms that have survived 10–30 years. TACT created the network of communications forums that operate in parallel to the pharmacy hierarchy. Both CMOP and DUAT insider action research programs rely on cross-organizational learning mechanisms to carry out annual initiatives. In the early years, the program leaders did not have a clear picture of what the new capabilities would be at maturity, but they believed that research would lead to improvements such as increased patient satisfaction, improved management/employee relationships, and lower drug costs. Importantly, the inside researchers did understand that infrastructure for change was needed and so they formed either parallel learning mechanisms or integrated learning mechanisms to augment the normal hierarchy. This shows one important linkage between insider action research and learning mechanisms depicted in the Roth model (Fig. 2). The combination of insider action research and various learning mechanisms led to new organizational capabilities.

A variable not covered in our insider action research discussions concerns the importance of a long-term action research perspective, particularly in the health care sector. The TACT program was in response to a major labor relations crisis and formally lasted two years. It spawned other insider action research programs including programs to improve management/employee communications and programs to improve courtesy and quality of services to health plan members. Much later, an economic crisis also stimulated a series of action research programs. From the outset, PIP was more than a focus on improving pharmacy productivity, and it spawned projects such as expansion of over-the counter (OTC) drugs (changing the outpatient pharmacies to allow for stocking and selling OTC drugs), E-Script (an automated way to refill prescriptions), and automated,

web-based performance reporting systems (See Table 1). Although the formal PIP ended, PIP best practices continue to be used in all outpatient pharmacies in Southern California. Also, CMOP evolved as a successful action research program and spawned medical group interest in better prescribing habits, creating the DUAT program. This affirms early observations about the value of long-term action research (Stebbins et al., 1982). Specifically, broad-based LTAR programs conducted by insiders seem to beget new programs in a never-ending chain of improvements. So we would add to the insider action research issues the perspective that pursuit of new capabilities should be a long-term venture (Stebbins et al., 1982). Two or more years, and in three of our cases – 10 or more years – are needed to fully institutionalize new capabilities.

A second attribute of insider action research, not covered in the Roth model, relates to the quality of data gathering. The original organization climate and TACT programs were solidly anchored in scientific data gathering (James et al., 1977). There was an attempt to reach all employees through comprehensive survey research and group sensing methods, and to validate themes through system-wide feedback/discussion meetings. The importance of sound data gathering is that it signals a serious intent to research the situation and to ensure that research results are translated into actions that are both appropriate and practical for the situation. Research is followed by discussion to validate and understand the issues and to provide employees voice. As noted earlier, all of the insider action research programs discussed in this chapter had diagnostic phases; but PIP, CMOP, and DUAT can be questioned for goals, research methods, and metrics used to gauge success. In particular, we noted the somewhat limited scope of metrics used to evaluate PIP, and that both CMOP and DUAT have room for improvement in the way that change initiative targets are established.

It is difficult to describe the collective impact of insider action research programs at KPMCP, given that we are only dealing with one or sometimes two components of the KPMCP program. However, on specific issues such as drug utilization, action research combined with learning mechanisms creates new capabilities. Before the programs, fragmented and location-specific change initiatives at times brought about sporadic improvements. However, since 1997, insider action research has resulted in establishment of system-wide goals for reduced costs and improved drug utilization that are built into every pharmacy's budget. The idea that cognitive, structural, and procedural learning mechanisms exist to realize cost, quality, and service improvements helps explain the scope and depth of the new capabilities. The

fact that improvements depend on collaboration across organizational boundaries and budgeting mechanisms is probably unique in health care settings. The action research programs themselves build capability to learn and change.

One of the obvious questions raised by this paper concerns the absence of (professional) insider and outsider researchers to guide change programs. At the beginning of the PIP and CMOP programs, McKinsey & Company consultants helped pharmacy leaders analyze internal data to arrive at the initial change initiative foci for the programs. However, once launched, the consultants left the scene and PIP and CMOP moved ahead with managers as insider action researchers. This was a missed opportunity, in that the larger KPMCP organization has internal organization effectiveness consultants that might have been deployed to help with the change programs.

Although the dynamics of insider action research programs within the pharmacy division have not stressed contributions to knowledge at program outset, there have been contributions to the academic community. The TACT, PIP, DUAT, and CMOP programs have been covered elsewhere (see e.g., Stebbins et al., 1982; Stebbins & Snow, 1982; Stebbins & Shani, 1988; Stebbins & Valenzuela, 2004, 2008a, 2008b) on topics of long-term action research, programmatic action research, parallel learning mechanisms, collaborative management research, and sustainable work systems. Many other change programs at KPMCP (see Table 1) have not been reported, but the organization is open to further research. It is interesting to speculate about what would have occurred if KPMCP and the pharmacy division had continued the course established at the outset, which involved a strong partnership between university-based researchers and inside action researchers.

REFLECTIONS: OUTSIDE ACTION RESEARCHER PERSPECTIVE

The first author of this paper has extensive experience as an outside action researcher and also served as KPMCP's first internal organization development consultant for Southern California (1973–1978). Since that time, he has been professor, Organization Design, at Cal Poly's Orfalea College of Business and has consulted on a wide variety of interventions within KPMCP and other health care organizations. He has been affiliated

with the pharmacy division for 35 years. Reflecting on the cumulative action research record, he has the following thoughts:

Michael Stebbins

The striking part of the Pharmacy Division story is that the organization had a great introduction to organization development through the initial organizational climate and TACT studies. At that time, KPMCP was resource-rich with researchers and consultants, and relied on seasoned action researchers in Southern California to guide the change programs. It was a great marriage of professionals from TCU's Institute of Behavioral research with leaders of the then-emerging talent pool of external OD consultants residing in the greater Los Angeles area. Jack Hawley, Anthony Rose, and many others provided support during the initial action research programs. Both the Climate and TACT programs were broad-based data- feedback/discussion programs that positioned KPMCP for significant action learning. The programs featured high management and employee involvement and gave management a great deal of confidence that they could create and guide their own programs. Over the years, managers have periodically brought in inside and outside action researchers as well as traditional management consultants to help with crises and specific challenges. Managers have been quick to pick up action research skills and to use them on programs that produce company-wide change.

At the same time, the grand collaboration between outside researchers and managers did not continue after the climate studies and TACT. Managers have created and led the most recent insider action research programs. While the programs have been impressive, managers have not been exposed to emerging consulting fields such as clinical inquiry research and appreciative inquiry. This probably translates to limited opportunities for reflective practice with attendant loss of objectivity on selected change programs. At KPMCP, the focus has been on creating new organizational capabilities without much focus on new skills or on contributions to basic knowledge in the social sciences. The issue is low attention to reliance on trained helpers where the field is changing rapidly as well as only modest commitment to collaborative management research. This is probably a loss for both the organization and academia given the considerable contributions of the 1970's and early 1980's.

Reflecting on 35 years of work, the research contributions are solid but modest. KPMCP has contributed to theory on long-term action research, organizational climate, learning mechanisms, organization design, and now, insider action research. Moreover, the pharmacy division remains open to new ventures in collaborative management research.

REFLECTIONS: INSIDER ACTION RESEARCHER PERSPECTIVE

The second author of this paper has over 30 years experience as a pharmacist and manager within pharmacy operations in Southern California. She has been the leading management representative for the

regional communications forum for over 15 years, and is a key contributor to the CMOP structural learning mechanism cited earlier. Reflecting on the cumulative action research record, she has the following thoughts:

Judy Valenzuela

While I have not been formally trained in action research, my years with KPMCP pharmacy operations have indeed followed the models and principles of insider action research. I have been involved in all of the change initiatives (except the climate study) cited in Table 1, and have been the top pharmacy leader for Orange County during the PIP, CMOP, and DUAT programs. During the past three years we have also been fully engaged in implementation of an automated health record system that has involved all facets of KPMCP and pharmacy operations: inpatient, outpatient, ambulatory care, home infusion, and drug education. We have joined with our physician partners to improve care by contributing to clinical outcomes in specific disease states such as diabetes and high blood pressure. In addition, we have been building entirely new facilities, growing membership, and keeping pace with the rapidly changing health care technologies and regulations. As suggested by Table 1, the collective impact on our staff has been enormous. Employees have learned to deal with continuous innovation and change.

Mike and I have been involved with the regional communications forum for decades. In our roles as insider and outsider action researchers we have gathered a lot of data on how the various change initiatives have been performing over the years. In particular, my role on the forum has shifted toward uncovering data to be shared at quarterly meetings and liaison work with pharmacy operations staff that support the various programs. It is vital that employees have current and valid information on the programs and realize their roles in achieving performance. So information on both the change process and outcomes must be shared if we are to continue to create new capabilities within the pharmacy organization. At the forum and in diverse other gatherings with employees we share goals, company strategy, and the challenges to be faced. Communication of that engages people to be part of something other than their daily tasks. It promotes learning. The organization has matured and learned to get people involved, get feedback, and work together across locations and company boundaries. Because of our unique history and because of the forum and other programs, pharmacy is in a different place compared to the rest of the company on how to treat people and the need for teamwork in creating new capabilities.

Insider action research, with an emphasis on sharing performance information, will continue to be core to our success. Engaging physician partners along with our managers and staff has also been a key guiding principle. Engagement occurs at all levels: Southern California region, medical center, and local pharmacy. We are continuing to explore new learning mechanisms such as physician-led change teams and other structural ways to gain sponsorship. Even where the scope and complexity of a change effort does not permit involvement of large numbers of staff in action research, we have provided advance information on the business necessity for change, training for front line staff, and feedback mechanisms for continual improvement. We have formal and informal

processes in place and do encourage managers and staff to use their day to day experience to adapt new systems and then share best practices.

The pharmacy management team has a long history of delivering on strategic initiatives with high measures of success and has high credibility within the KPMCP organization. We have been early adopters of learning mechanisms and know how to conduct change. The challenge is of course to balance change efforts with managing existing operations. I feel that assuring adequate staffing for the change effort and most importantly support for managers and staff in the field are critical to program success.

CONCLUSION

In this chapter, the evolution of long-term, participatory action research was documented with emphasis on applications in complex health care organizations. The development of the Kaiser Permanente (Pharmacy Operations) way of conducting action research programs over a 30-year time span was reviewed by examination of four case studies and by relating the Kaiser change initiative history to the Roth model on insider action research. It was noted that the Roth model is an excellent vehicle for connecting managerial interests in creating new organizational capabilities with insider action research issues and learning mechanisms. At Kaiser, the combination of crises and early identification of promising areas for development have led to ambitious insider action research programs that have spanned years, and now decades. In pursuing the change programs, managers and inside action researchers have encountered some of the issues raised by the Roth model, and they have also generated new issues and theory about conducting insider action research in medical care settings. In particular, in the Kaiser situation the political system issues relate less to gaining approval and commitment for change programs and more to managing issues across organizational boundaries. Both the CMOP and DUAT cases emphasized physician and pharmacist involvement in decision making at all organizational levels. Additional issues added to the Roth model include the value of taking a long-term perspective, limitations associated with reliance on managers as action researchers, and the value of high-quality data gathering within insider action research programs conducted in science-oriented medical care settings. Reflections and critical comments by the authors indicate that the collective impact of action research programs at Kaiser Permanente have been significant for all stakeholders, and during the course of programs, employees have gained experience in managing change. Although the insider/outsider action

research partnerships have diminished somewhat over the years, with attendant implications for contributions to social science research, the organization is open to new partnership ventures. In this chapter, the authors have also made modest contributions concerning the value of learning mechanisms in highlighting and resolving issues posed by the Roth model of insider action research. In each of the cases, structural learning mechanisms have created opportunities for dialogue among stakeholders that would ordinarily not take place during manager-orchestrated change programs. The authors hope that future studies will continue to uncover issues relevant to insider action research and the learning mechanisms that are helpful in conducting programs in different work settings.

REFERENCES

- Bartunek, J. M. (2008). Insider/outsider team research: The development of the approach and meanings. In: A. Shani, S. Mohrman, W. Pasmore, B. Stymne & N. Adler (Eds), *Handbook of collaborative management research* (pp. 73–92). Thousand Oaks, CA: Sage.
- Beer, M. (2001). How to develop an organization capable of sustained high performance: Embrace the drive for results-capability development paradox. *Organizational Dynamics*, 29(4), 233–247.
- Block, P. (2006). *Flawless consulting: A guide to getting your experience used*. San Francisco: Jossey-Bass.
- Burgelman, R. (1994). Fading memories: A process theory of strategic business exit in dynamic environments. *Administrative Science Quarterly*, 39(1), 24–56.
- Bushe, GR., & Shani, A. B. (1991). *Parallel learning structures: Creating innovation in bureaucracies*. Reading, MA: Addison Wesley.
- Chein, I., Cook, S., & Harding, J. (1948). The field of action research. *American Psychologist*, 3(2), 43–50.
- Coghlan, D., & Brannick, T. (2001). *Doing research in your own organization*. London: Sage.
- Collier, J. (1945). United States Indian administration as a laboratory of ethnic relations. *Social Research*, 12, 275–276.
- Elden, M. (1979). Three generations of worker democracy in Norway. In: C. L. Cooper & E. Mumford (Eds), *The quality of work life in Europe*. London: Associated Business Press.
- French, W. L., & Bell, C. H., Jr. (1973). *Organization development*. Englewood Cliffs, NJ: Prentice-Hall.
- French, W. L., & Bell, C. H., Jr. (1990). *Organization development: Behavioral science interventions for organization improvement*. Englewood Cliffs, NJ: Prentice-Hall.
- Grant, R. (1996). Prospering in dynamically competitive environments: Organizational capability as knowledge integrators. *Organization Science*, 7, 375–387.
- Hughes, I. (2008). Action research in healthcare. In: P. Reason & H. Bradbury (Eds), *The Sage handbook of action research: Participative inquiry and practice* (pp. 381–393). London: Sage.

- James, L. R., Hartman, A., Stebbins, M. W., & Jones, A. P. (1977). Relationships among psychological climate and a VIE model of work motivation. *Personnel Psychology*, 30(2), 229–254.
- Jones, A. P. and James, L. R. (1976). *Psychological climate and organizational climate: dimensions and relationships*. Technical Report 76-4. Institute of Behavioral Research, Texas Christian University, Fort Worth.
- Katzell, R. (1960). Action research activities at an oil refinery. In: H. A. Shepard & R. Katzell (Eds), *An action research program for organizational improvement* (pp. 37–47). Ann Arbor: The Foundation for Research on Human Behavior, University of Michigan.
- Kuhn, T. (1962). *The structure of scientific revolutions*. Chicago: University of Chicago Press.
- Margulies, N., & Adams, J. (1982). *Organizational development in health care organizations*. Reading, MA: Addison Wesley.
- Miles, R. E. (1975). *Theories of management*. New York: McGraw-Hill.
- Pavlovsky, P., Forslin, J., & Reinhardt, R. (2001). Practices and tools of organizational learning. In: M. Dierkes, A. Berthoin Antal, M. Dierkes, J. Child & I. Nonaka (Eds), *Handbook of organizational learning and knowledge* (pp. 775–793). Oxford: Oxford University Press.
- Popper, M., & Lipshitz, R. (1996). Organizational learning mechanisms: A structural and cultural approach to organizational learning. *Journal of Applied Behavioral Science*, 34, 161–179.
- Reason, P., & Bradbury, H. (2001). *Handbook of action research*. London: Sage.
- Reason, P., & Bradbury, H. (2008). *The sage handbook of action research*. Los Angeles: Sage.
- Roth, J., Shani, A. B., & Leary, M. M. (2007). Insider action research: Facing challenges of new capability development within a biopharma company. *Action Research*, 5(1), 41–61.
- Shani, A. B. (1981). *Understanding the process of action research in organizations: a theoretical perspective*. Unpublished doctoral dissertation. Cleveland, OH: Case Western Reserve University.
- Shani, A. B., & Docherty, P. (2003). *Learning by design*. Oxford: Blackwell.
- Stebbins, M. W., Hawley, J. A., & Rose, A. L. (1982). Long-term action research: The most effective way to improve complex health care organizations. In: N. Margulies & J. Adams (Eds), *Organization development in health care organizations* (pp. 105–136). Reading, MA: Addison Wesley.
- Stebbins, M. W., & Shani, A. B. (1988). Communications forum interventions: A longitudinal case study. *Leadership and Organization Development Journal*, 9(5), 3–10.
- Stebbins, M. W., Shani, A. B., Moon, W. R., & Bowles, D. (1998). Business process reengineering at blue shield of California: The integration of multiple change initiatives. *Journal of Organization Change Management*, 11(3), 216–232.
- Stebbins, M. W., & Snow, C. C. (1982). Processes and payoffs of programmatic action research. *Journal of Applied Behavioral Sciences*, 18(1), 69–86.
- Stebbins, M. W., & Valenzuela, J. L. (2004). Structural learning mechanisms in collaborative research. In: N. Adler, A. Shani & A. Styre (Eds), *Collaborative research in organizations: Foundations for learning, change, and theoretical development* (pp. 149–166). Thousand Oaks, CA: Sage.
- Stebbins, M. W., & Valenzuela, J. L. (2008a). Learning mechanisms in sustainable work systems design. In: P. Docherty, M. Kira & A. Shani (Eds), *Creating sustainable work systems*. London: Routledge.

- Stebbins, M. W., & Valenzuela, J. L. (2008b). Collaborative research in pharmacy operations: The Kaiser-Permanente experience. In: A. B. Shani, S. A. Mohrman, W. A. Pasmore, B. Stymne & N. Adler (Eds), *Handbook of collaborative management research* (pp. 487–508). Los Angeles, CA: Sage.
- Susman, G. I., & Evered, R. D. (1978). An assessment of the scientific merits of action research. *Administrative Sciences Quarterly*, 23, 583–603.
- Thorsrud, E. (1977). Democracy at work: Norwegian experience with non-bureaucratic forms of organization. *Applied Behavioral Science*, 13(3), 410–421.
- Trist, E. (1981). *The evolution of socio-technical systems: A conceptual framework and action research program*. Toronto: Ontario Ministry of Labour.
- Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage.
- Whyte, W. F. (1989). Introduction: Action research for the twenty-first century; participation, reflection, and practice. *American Behavioral Scientist*, 32(5), 502–512.
- Zand, D. (1974). Collaborative organization: A new change strategy. *Journal of Applied Behavioral Science*, 10(1), 63–89.