

Three Wins

Second Edition

Service improvement using value
stream design

Simon Dodds

www.ThreeWins.com

First published in 2007.

© 2006, 2007 by Simon Dodds.

The right of Simon Dodds to be identified as the author of this work has been asserted in accordance with the Copyright, Designs and Patents Act 1988.

ISBN: 978-1-84753-631-0

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or later invented, including photocopying and recording, or in any information storage or retrieval system, without the permission in writing from the publishers. This book may not be lent, resold, hired out or otherwise disposed of by way of trade in any form, binding or cover other than that in which it is published, without the prior consent of the publishers.

The first edition of this book, by Simon Dodds, was published in 2006 as *Three Wins: Service redesign through flow modelling* by Kingsham Press, Chichester, UK. (ISBN 1-904235-54-9).

www.ThreeWins.com

Foreword to the First Edition

In the summer of 1999 I started a new job as a consultant surgeon in a newly formed department of Vascular Surgery at Good Hope Hospital, a medium sized district general hospital on the north east edge of Birmingham. Like all new consultants I was full of enthusiasm and I had lots of ideas about how I would like to change some of the things I had seen during my training. Five years later I had the honour of accepting, on behalf of the whole team, the first NHS Innovation Award for Service Delivery for the re-designed Vascular Surgery Outpatient Clinic and Leg Ulcer Telemedicine Service. An unexpected outcome of that day was an invitation to write about what we did to achieve this award and how we achieved the elusive win-win-win outcome: a better service to patients; a skilled, motivated and enthusiastic team; and a substantial cost saving in treatment costs. We certainly did not anticipate the far-reaching implications of the project when we started; or the enthusiastic support we would get from patients and community NHS staff; or the many visitors that have taken the time to visit and to share knowledge and experience. We had some luck and we had a lot of encouragement but I don't think they were the recipe for success. We had no steering committee, no project plan, no budget, no meetings and no commercial support and I don't think that was the recipe for success either. We put the needs of the patient first; we used the ideas, skills and enthusiasm of the staff; we assessed each incremental change methodically and scientifically at each stage; and we did not give up. Was that the recipe for success?

When I was asked to tell our story I realised that I couldn't describe how we did it - so I couldn't pass on this knowledge. Since then I have done a lot of reading about innovation, how change happens in large organisations and how effective teams are needed to deliver effective change. I have seen common threads in these books that resonate with what we did and I have come to realise that we demonstrated a sixth sense that steered us away from major obstacles which would have meant certain failure. I have come to realise that the essential ingredients for success are:

1. A shared passion that constantly drives the search for a solution.
2. An insatiable curiosity and no fear of considering new ideas.
3. The collective skills and experience of a cohesive team that allowed us to leap hurdles, to learn from setbacks and to deliver solutions.

Yes, we needed some resources and were very fortunate to have been awarded a small research grant at the start; an investment has been repaid with interest! We have enjoyed positive outcomes other than a

better service and the kudos of a national award; we have gained a better understanding of clinical process redesign and we have developed and tested methods that make this complex process easier, more predictable and less dependent on luck. My experience has deepened my belief that the future of the NHS lies in the hearts and minds of the NHS staff and it is this optimism for the future and my enthusiasm to keep "shaking the trees" that I hope this book will convey. Some might consider that what we have achieved is unique. I do not think so - I believe anyone can do it.

Sutton Coldfield
October 2005.

Foreword to the Second Edition

Almost two years have passed since writing the first edition of *Three Wins* and I have learned more about service improvement in that time than ever before. There is a revolution underway; a transformation of the way we think about work – and it crystallised in Japan in the 1950's in an automobile company called Toyota. The philosophy and principles that Toyota developed and refined over several decades have enabled them to grow to become the largest car manufacturer in the world. This dramatic transformation has been given a label - *Lean Thinking*. When I heard the term late in 2005 and read about it I realised immediately that it was what we had been doing since 1999. We just didn't call it that; we called it *Common Sense*. Further enquiry revealed two other schools of thought in manufacturing that were broadcasting very similar messages: Motorola with their *Six Sigma* and Goldratt with his *Theory of Constraints*. What I found fascinating was that the underlying principles were the same; they all focussed on improving the flow of work by designing the mistakes and delays out of the processes. It is not surprising that this innovation is now diffusing into service industries such as healthcare and my optimism for the future of healthcare remains high because we now have evidence that the principles of value stream improvement do work. It is now just a matter of learning how to do it and putting that knowledge into practice.

Sutton Coldfield
June 2007

About the Author

Simon Dodds was born in Yorkshire in the “swinging sixties” and in 1978 he was awarded an Open Scholarship to read Medicine at Pembroke College, Cambridge. After completing the Part I Medical Science Tripos he chose a Part II in Computer Science; graduating with 1st Class Honours in 1982. He spent that summer in Cambridge working as computer programmer for a biotechnology start-up company; just when the personal computer revolution was starting and the Internet was being invented. In 1985 he completed his clinical studies at St Bartholomew's Hospital, London and went on to train in general surgery in London, Cambridge and the cathedral towns of Wessex. He was elected fellow of the Royal College of Surgeons of England in 1990 and joined the Wessex 'Flyer' Rotation. He devoted two years to research on haemodynamic modelling of occlusive arterial disease, working in collaboration with the Cavendish Laboratory in Cambridge and was awarded his Master of Surgery degree in 1994. He continued his higher surgical training in Vascular Surgery, during which time he developed an interest in the cause and management of leg ulcers. He was appointed as consultant surgeon at Good Hope Hospital in 1999 and since then has combined his training in surgery, research and computer science in the development of the vascular surgery services. He has always been passionate about innovation and in 2004 the vascular surgery outpatient team were awarded the first NHS Innovation Award for Service Delivery for the development, testing and successful implementation of the Leg Ulcer Telemedicine System which is now being used throughout North East Birmingham and at several other sites in the UK. His current interests include the application of discrete event simulation to the design of improved healthcare processes, work for which he was awarded the Health Information Technology Effectiveness Award 2005 for the Best use of Information Technology in the Health Service. Since writing the first edition of *Three Wins* he has continued to develop a better understanding of the psychodynamics of organisational change and to create training courses and tools to support healthcare “value stream improvement”. Simon lives a short walk from Good Hope Hospital with wife Abigail, daughters Alice and Sophie, and Juma the black Labrador. He prefers not to offer a private surgical service and has no understanding of, nor ability to play golf.

Acknowledgements

There are dozens of people who have directly and indirectly contributed to the work described in this book and it is impossible to mention everyone by name – you know who you are and I thank you all for your enthusiasm, support and hard work.

There are some individuals that I must mention by name because their contributions have been critical: Sue Hayes for her clinical skills, patience, exceptional diplomacy and sheer dedication to the whole project; Peter Ingham for many long discussions and help in the critical testing phase; all the district nursing teams in North Birmingham who contributed to the LUTM research trial and who convinced their PCT to adopt the service; Val Robson and Robin Cooper for their infectious enthusiasm and help with some inevitable technical glitches; David Gleaves for suggesting that we should submit the work for the NHS Innovation Award; Wendy Smith for her help in implementing the clinic booking templates; Andy Comber for insisting that we submit the work for the HITEA Award; and Hugo Minney for testing the DES software! I must also acknowledge the contribution made by my three mentors: Stephen Gatley, Mike Thompson and Tony Chant, who over the last twenty years have sowed the seeds of many of the ideas that have led to this book. I would particularly like to thank Anand Kumar of Kingsham Press for suggesting I write a book at all; and Trevor Gay, Sharon Palser, and Dave Pothier for their comments on the first drafts.

Since the first edition was published I have had the pleasure and honour to meet, to be inspired by, and to learn from an increasingly large network of amazing people; people who share my passion for doing whatever we can to help those who entrust us with their care; and to improving the world that our children will inherit. I must pay particular tribute to Andy Ferguson who infectious enthusiasm and insatiable desire to help others is an inspiration to everyone.

Last and most important, I would like to thank Abigail, Alice and Sophie for their love, support, patience and understanding during the whole project and during the writing of *Three Wins*. It has cost you the most of anyone.

Contents

Foreword to the First Edition	iii
Foreword to the Second Edition	iv
About the Author	v
Acknowledgements	vi
Contents	vii
Chronological List of Events	ix
Preface	x
Chapter 1. A new beginning	1
The context	2
The challenge	4
The outcome	4
The goal	5
The action	7
The asking	8
The listening	9
The team	13
The learning	15
Chapter 2. Win-win-win	19
The motivation	20
The plan	22
Chapter 3. Innovation	25
The brainstorm	26
The map	27
The luck	29
Chapter 4. Investigation	31
The filter	32
The diffusion	34
The integration	38
The research	39
The report	40
The tipping point	43
The adoption	44
Chapter 5. Implementation	49
The path	50
The finish	51

Chapter 6. Complexity	53
The game	54
The paradigms	55
The constraints	58
The solution	59
The model	60
The simulation	63
Chapter 7. Value Stream Design	69
Chapter 8. The Change Engine	71
The spiral	72
The lifecycle	72
The test	74
Final thoughts	75
References	77
Appendix A - The Innovation Questionnaire	79
Appendix B – The First Ten Steps	83

Chronological List of Events

Aug 1999	Simon Dodds appointed consultant surgeon at Good Hope Hospital.
Sep 1999	Prospective outpatient audit commenced.
Dec 1999	Leg Ulcer Telemedicine (LUTM) study research proposal submitted.
Jan 2000	LUTM study research grant awarded.
June 2000	One Stop Vascular Outpatient Clinic implemented.
July 2000	Wound measurement software development started.
April 2001	Sue Hayes (research nurse) joined the team to coordinate LUTM study.
July 2001	LUTM software development started.
Nov 2001	Technical feasibility of LUTM proven with the help of Peter Ingham.
Jan 2002	First patient recruited to LUTM study.
Mar 2002	Publication of computerised wound measurement method.
Jul 2002	Visits to Good Hope Hospital by Val Robson and Robin Cooper.
Nov 2003	Last patient completed LUTM study.
Jan 2004	LUTM study report completed.
Apr 2004	LUTM implemented by Robin Cooper in North Hampshire.
July 2004	NHS Innovation Award for Innovative Service Delivery, London.
Aug 2004	North Birmingham PCT rollout of LUTM started.
Nov 2004	DES designed clinic booking template implemented.
Mar 2005	HITEA Best Innovative Use of IT. HITEA Best use of IT in the Health Service
Apr 2005	West Midlands NHS Innovations Innovative Service Delivery Award.
Apr 2005	East Birmingham PCT rollout of LUTM started.
Apr 2005	Burntwood Lichfield and Tamworth PCT rollout of LUTM started.
Sep 2005	New Treatment Centre opens at Good Hope Hospital.
Jan 2006	First edition of "Three Wins" published.
Jan 2006	First "Three Wins" workshop.
Feb 2006	Second "Three Wins" workshop co-presented with Andy Ferguson.
Jun 2006	First demonstration of Lean methods at Good Hope Hospital.
Sep 2006	First Value Stream Mapping event at Good Hope Hospital.
Nov 2006	First Rapid Improvement event at Good Hope Hospital.
Apr 2007	Good Hope Hospital becomes part of Heart of England Foundation Trust.
Aug 2007	Second edition of "Three Wins" published.

This book is two stories in one.

The first is the real story of the Leg Ulcer Telemedicine Project; a blow by blow account, warts and all. These are the facts – the what, who, where, when and why.

The second is the story of **how** and is told in parallel with the first but in reality only become clear after the work had been done with the benefit of hindsight and during the writing of this book.

Preface

What is this book about?

This book tells the story of how a small group of healthcare professionals, brought together by chance, were united in their common desire to improve the care they delivered; and how they re-invented the way in which they work to create a better service for their patients and a better environment for themselves. It describes how, by recognising and using the diverse experiences and skills of every member of the team; by persistence and focusing on the things that they valued most; and by using ideas and techniques borrowed from elsewhere, their clinical service was gradually, in relatively easy steps, evolved into probably the best service of its kind in the UK, and possibly the world. This book describes how innovation at the front-line in healthcare delivery can be achieved by the very teams of people that deliver the care. It describes an example of how reflective practice, audit, innovation, research, development, and care process redesign were integrated to achieve a win-win-win outcome: a higher quality service for patients; a motivated and skilled clinical team; and improved performance with reduced costs to the NHS.

Who should read this book?

Anyone interested in improving healthcare services and designing them to meet the needs of patients should find this book useful. If your interest is in care pathway design and management of chronic conditions that span the primary-secondary care interface then it may be of particular interest. If you want to copy our model for shared management of leg ulcers then our experience should enable you to plan and implement a similar service that meets your local needs. This book is for everyone involved in delivering modern healthcare - nurses, doctors, managers, IT professionals, chief executives, ministers, the public, the press and most importantly the patients – our customers.

Why read this book?

Anyone directly involved in healthcare will testify that they are often too busy delivering the care to have the time to reflect, research and implement changes in the way they would like. Too busy to learn from the successes and the mistakes of others. Too busy to try different approaches and to evolve their own optimum solution. This book describes a range of ideas, methods, tricks and tips of how to avoid

the obstacles and pitfalls in the minefield of possibilities that is littered with the remains of previous failed attempts.

What this book does not do?

I do not wish to give the impression that the methods we used are perfect, complete or will work for everyone and for every problem. Every team has its own strengths and weaknesses; and every challenge has its own opportunities and threats. I do not advocate that all teams should develop their own methods and tools; in fact I would advise against it. However the general methodology and discipline that is needed to develop new tools is applicable to all design projects - especially healthcare process design.

Advanced information technology is revolutionising the way that healthcare is delivered. The more comfortable clinical and management teams are with the redesign process, the less stressful and more rewarding this change will be. Clinical governance is an organisation-wide concept; continuous quality improvement (CQI) is synonymous with process change; and all clinical and management teams will benefit from acquiring process redesign skills. I believe that these skills are complementary to audit and research and will in time become part of the training curriculum of all healthcare professionals: clinical and non-clinical.

How does this relate to other service improvement methods?

The principles and methods outlined in this book are encapsulated the term *Value Stream Design*. The *value* is what the customer wants and is prepared to pay for; the *stream* is the flow of work from a supplier to a customer; the *design* is the deliberate creative act of applying knowledge to create something that solves a problem.

Value stream improvement (VSI) is any method that seeks to improve both the quality and performance of a system by adopting a customer focussed perspective and working to identify and remove anything from the process that does not add value for the customer. VSI is not a new idea; it is the underlying principle for three schools of thought that over the last 50 years have transformed manufacturing industry; Lean Thinking; Six Sigma and Theory of Constraints. Unfortunately, these labels do not describe what they are and this ambiguity has resulted in some confusion and unproductive debate.

“Three Wins: service improvement using value stream design” is the same message told as a story; a true story. I hope you enjoy it.

Chapter 1. A new beginning

In the summer of 1999 a new department of Vascular Surgery was created at Good Hope Hospital to meet increasing demand and to satisfy national recommendations for a specialised vascular surgical service delivered by staff with appropriate training and experience.

Vascular disease affects the network of blood vessels; the arteries that carry blood from the heart to the body and the veins that carry blood back. Vascular disease affects a large proportion of the population, especially elderly patients, and is usually incurable and chronic and so places high demands on health care services. Close co-operation between primary and secondary care organisations is needed as complex surgical intervention is appropriate in some patients. Easy access to a vascular surgery outpatient service is required for patients to get specialist assessment, advice, and treatment; and many studies have shown that close collaboration between primary and secondary care delivers better outcomes in this complex group of patients and makes better use of the available human and physical resources.

Symptomatic arterial disease (e.g. hardened arteries) affects over 5% of people over the age of 65; and venous disease (e.g. varicose veins) affects more than 30% of the population. Around one person in 200 suffers with chronic leg ulcers; three quarters of which have a vascular cause. The modern management of chronic vascular disease requires detailed assessment by staff with specialist training and experience; access to sophisticated non-invasive imaging such as ultrasound; and the skills and experience of a consultant vascular surgeon. Such specialist outpatient services are only economic on the scale of one full time vascular surgeon per 150,000 population so a vascular surgery service requires the coordinated activity of a team of specialists that includes vascular nurses, vascular technologists, and vascular radiologists.

The majority of the demand is vascular disease affecting the legs and the typical problems that a patient will present with are leg or foot pain, and ulcers. The management of patients with these symptoms follows the same process as other patients; first the diagnosis (i.e. cause) is established and then the appropriate treatment is directed at the cause

to relieve the symptoms and prevent progression of the condition. Most of this work can be done on an outpatient basis; admission to hospital is only required for the most complex and urgent cases and for patients that require specialist investigations or surgical treatment. Many of the conditions require shared management over a long period of time so accurate clinical records and good communication between the patient, primary care and secondary care is essential.

Establishing a diagnosis has three parts; taking a history by interviewing the patient; performing a clinical examination; and requesting special investigations such as blood tests, x-rays or scans. The most useful diagnostic test in many vascular patients is colour flow Doppler ultrasound (duplex), a sophisticated non-invasive imaging tool that requires specialised equipment and staff trained in its use.

A patient referred with a leg ulcer represents a complex problem because the management requires specialist clinical assessment, specialised diagnostic tests and specialist treatment with wound dressings and sometimes operations. The reason that leg ulcers are referred to vascular surgery clinics is because vascular disease is the underlying cause of over 70% of ulcers, and unless this cause is managed appropriately the ulcer will fail to heal. Leg ulcers affect around 0.5% of the UK population, cause untold pain and misery, and cost around £2000 per patient per year to treat; the main direct cost being the wound dressings and community nurse time. It has been estimated that leg ulcers alone consume around 2% of all NHS resources! The correct management of leg ulcers is well understood and under ideal circumstances and with expert shared care up to 70% of new ulcers will heal within 3 months. Other studies have consistently shown that the healing rate is only 20-25% when these patients are managed in isolation. Shared care delivers better quality.

The context

Leg ulcers are a good example of a chronic, non life-threatening disease that affects a large number of elderly people and which benefits from the collaborative care of community-based generalists and hospital-based specialists. The challenge in delivering a high quality leg ulcer service is not lack of knowledge of what we do but lack of application of that knowledge to how we do it. This problem is becoming increasingly common as the population ages because an

increasing number of people have multiple, chronic conditions that span the traditional organisational boundaries of the NHS. Chronic disease management is the biggest challenge faced by 21st century medicine and to meet this challenge the balance of responsibility between primary and secondary care must be appropriate: primary care alone cannot achieve the desired outcomes; and secondary care alone cannot cope with the volume of work. The solution is to combine the strengths of the two services: primary care for day-to-day general assessment and treatment and secondary care for specialist assessment and treatment when required.

Good Hope Hospital (GHH) is a medium sized district general hospital situated on the north-east corner of Birmingham serving a mixed urban-rural population of around 450,000 and has for many years included vascular surgery as part of the department of General Surgery. The gradual development of the specialist vascular surgery service over the previous seven years had reached the stage where the time was right for the creation of a dedicated Vascular Surgery department. In 1999, the vascular surgery unit at Good Hope Hospital was created by increasing the number of consultant surgeons who had a special interest in vascular surgery to expand the existing team that included vascular technologists and specialist vascular nurses. Increasing demand for the specialist service had created major problems for the outpatient clinics, long waiting times for appointments and tests, disgruntled patients and increasing stress for the staff. It was not unusual for patients to wait four months for a new outpatient appointment, over six months for an outpatient duplex ultrasound examination and over a year for an operation. This story is typical of many specialist outpatient services that deal with chronic, complex conditions where the quality and performance of the service requires coordination of primary and secondary care teams and services that are designed to meet the specific needs of defined groups of patients. The effect of creating a dedicated vascular surgery unit was a predictable increase in the amount of work referred to an outpatient service that was already failing to cope. What was needed was not just more consultants - it needed a more radical and innovative solution to how we managed the whole patient pathway.

The challenge

The challenge was simple and one that is faced throughout the NHS: *We wanted to improve the quality of the service but we needed to do this within the constraints of existing resources.* Specifically we wanted to reduce the time that patients waited for clinic appointments, tests and operations; we wanted to reduce the number of times that the patients needed to visit hospital; we wanted to ensure that patients were cared for by staff who were competent to deal with their clinical problem; and we wanted to be able to communicate information and decisions quickly and effectively between everyone involved in the patient journey. At the same time we needed to increase the number of patients that were seen in clinic and we needed to do this using existing staff, equipment and facilities. In short we needed to achieve simultaneous "Wins" for the patient and for the NHS. The question was "How?"

The outcome

In July 2004 I had the honour of accepting, on behalf of the whole team, the first *NHS Innovation Award for Innovative Service Delivery* for the re-designed vascular surgery outpatient and leg ulcer telemedicine service. In April 2005 I was also delighted to accept the *HITEA Best Use of IT in the Health Service* for our innovative use of information technology in meeting this challenge. What is perhaps most surprising is that we achieved this nationally acknowledged success with none of the conventional service improvement machinery; there was no national directive, no business case, no project board, no special training; no service improvement experts and of course no money. There were just us.

A vascular surgery outpatient clinic is a specialised service and it is not the detail of what we did that is of general interest; it is how we achieved the success. This was the question that I was asked at the NHS Live Event in 2004. What surprised me at the time was that I couldn't give an answer; I couldn't describe how we had avoided failure. It would seem that the conventional methods used in clinical service improvement were not essential for success; and this raised a question in my mind "What are the essential requirements for success?" It is this question that I have been thinking and reading about since July 2004 and it is this question that I will attempt to answer.

The purpose of this book is to re-tell our story and to un-pick the principles and methods that we used. In doing this I have been forced to replay the twists and turns of the journey and to examine, with the benefit of hindsight, why we took the decisions we did. In retracing the steps I have gained a deeper insight into the process and into what, I believe, are the essential requirements for success. I have read some of the most widely quoted books on achieving successful change and have found a common set of principles echoed again, and again; though each framed in different contexts, using different methods and different language. My objective is to create a practical step-by-step guide of why and how to use the methods that worked for us and I hope this will help inspire others to gain the confidence to successfully overcome their own challenges. I believe anyone can do this. First you must believe that it is possible.

The goal

The first step is to define the goal. As Stephen Covey writes "*To begin you must have the end in mind*". The goal of a healthcare system is to deliver the best possible service to as many patients as possible, and to deliver it when and where it is needed. In failing to achieve this goal we either deliver less than is required - a quality failure; or we deliver it too late; in the wrong place or at an unaffordable price - a performance failure. Our goal therefore has two clear objectives; we want to deliver the best quality and the best performance at the same time. However, there are three other possible combinations:

Lower Quality	+	Poorer Performance	= Lose-Lose
Higher Quality	+	Poorer Performance	= Win-Lose
Lower Quality	+	Better Performance	= Lose-Win
Higher Quality	+	Better Performance	= Win-Win

Our goal represents only one of the four outcomes; the other three represent a failure to achieve the one, the other or both of our objectives. To achieve the win-win outcome we must identify and eliminate the causes of these failures.

A quality failure is a problem with *what* we do and a performance failure is a problem with *how* we do it.

To achieve the win-win goal we must adopt a philosophy of eliminating errors and to do this we must find their root causes.

Three Wins

As a starting point it is helpful to list the eight possible *causal* associations between quality and performance:

Lower Quality	▶	Poorer Performance	Lose▶Lose
Poorer Performance	▶	Lower Quality	Lose▶Lose
Lower Quality	▶	Better Performance	Lose▶Win
Better Performance	▶	Lower Quality	Win▶Lose
Poorer Performance	▶	Higher Quality	Lose▶Win
Higher Quality	▶	Poorer Performance	Win▶Lose
Higher Quality	▶	Better Performance	Win▶Win
Better Performance	▶	Higher Quality	Win▶Win

Combining these into pairs there is one downward spiral of lose-lose, four stable compromises with mixtures of win and lose, and one upward cycle of win-win. I can think of actual situations that fit all of these categories; the question is why would you choose to lose?

In our case we needed to increase the quality and performance of the vascular surgery outpatient clinic and that meant reducing the many opportunities for wasting patient's time and for errors arising from lack of information or poor clinical decisions. In a conventional clinic a new patient with a leg ulcer would visit the hospital three times before the diagnosis was established and definitive treatment could start - first for a specialist assessment, second for special tests, and third for a review with the test result. This process created two delays that added nothing to the patient care; multiple visits that cost the patient and their carers extra time, effort and stress; and added administration costs for the hospital. It seemed clear that we should start by looking closely at what we were doing and identify the root causes of the problems. We appeared to have an unhealthy process and we needed to diagnose the cause before we could decide the correct treatment!

It is often assumed that quality and performance are always opposite ends of a see-saw; what you gain on one you lose on the other. This assumption does not stand up to critical examination; if you can lose

on both then you can win on both. This is not a zero sum game - you can have more than one winner.

Believing that a win-win outcome is possible is the most important step to achieving one.

The action

Even when your goal is clear and you believe that the goal can be reached the challenge of how to solve the problem may still appear insurmountable. After all, you managed to get yourself into this mess so what hope do you have that you can get yourself out of it? Where do you start? All the authors I have read agree on a fundamental principle in bringing about successful change - Action!

The guaranteed path to failure is to do nothing.

The only chance of success is to do something.

If you don't know the solution to your problem you have to ask two questions. "What is the problem?" and "What is the cause?" Whenever you are stuck or unsure the most useful thing you can do is to gather some information; ask questions, lots of questions, difficult questions.

I asked some questions: I asked "Why do we make our patients to visit hospital three times?"; "Why can't we do everything that the patient needed in one visit?"; "Would a One Stop Clinic improve the quality of care in terms of waiting times and reduce administrative costs?"; "Why aren't we offering One Stop Clinics now?"; "Why can't we just do it - it won't cost anything extra because we are already doing the same work now - just less efficiently?" I asked lots of questions and I got lots of answers like "Because we have never done it that way."; "Because we won't be allowed to."; "Because we haven't got time to organise it."; "Because it's not my problem."; "Because it's not my fault."; "Because it's not my job."; "Because it won't work.". I also got a few answers along the lines of "I can't see why that should be a problem."; "It would actually make my job easier."; "Why do we need permission?"; and most importantly "Good idea, let's give it a go."

The asking

Other than making you feel better because you are actually doing something there are many other good reasons to start asking questions:

- It provides a clear signal that you want to learn and change.
- It provides a focus for action for every member of the team.
- It provides explicit evidence of where the problems lie.
- It provides a baseline from which improvements can be measured.

There are many different types of data that can be collected and virtually all of these will be useful at some stage so it is worth adopting this good habit early. Most data can be collected simply and quickly on paper *by the people involved* - patient views, staff views, activity, case mix, timings, pathways, literature searches, summaries of discussions with experts, etc. There is no need at this stage to conduct a detailed analysis of the data - all you need to do is agree what data to start collecting, how to collect it, who will do it and for how long. Do not assume that someone else should, could or would do this for you.

One of the first things we did was to start collecting data and I cannot stress too much how important this basic first step turned out to be for the success of the whole project. The questions I asked were simple, objective and the answers were easy to collect as part of the clinical process:

- When was the patient referred?
- What problem were they referred with?
- Who saw the patient in clinic?
- What investigations were requested?
- Where were the investigations done?
- When were the investigations done?
- When was the result available?
- What was the diagnosis?
- What treatment was offered?
- etc.

All these questions have two things in common: first they are all about the patient and secondly they are all "who, what, where and when" questions. The purpose of asking them was to record only what was

happening not why or how. This involved some extra effort because this data is not normally collected routinely or is not easily accessible and it needed a convenient way of storing but it became clear very quickly that the benefits more than justified the effort. It does not matter if you collect the data on paper or electronically, but you should be selective. If you cannot answer the question "Why am I collecting this data and what benefit will it be to the patient?" then don't include it. To collect data for the sake of it in the hope that day it will be useful is a waste of time and we didn't have time to waste. That is not to say that you always collect the same data - circumstances change and new questions arise that need to be answered - so the questions you ask may need to change.

The listening

All the authors I have read also agree on another fundamental principle of bringing about successful change; *Listen First*. Change implies learning, so by asking questions and collecting data we are starting to apply this principle. The quickest and easiest way to learn is by asking questions and listening to the replies. The slowest and hardest way to learn is by making mistakes; and improving quality means making fewer mistakes so learning this way is not the logical path to improving quality of care.

Listening has two stages: hearing (collecting the data) and understanding (interpreting the data). The second stage is what many authors call *active listening* because it is only at this stage that learning can happen. It is important to appreciate that the interpretation of the same data will vary from one person to another. This is normal and expected because no two people have the same knowledge, experiences or make the same assumptions. So whenever sharing your opinion we should always expect some lack of agreement - and this is one reason why it is important to share our opinion *and* the evidence on which it is based; so that others can form their own opinion based on their own unique perspective. An opinion is just that, and when opinions differ there is no value in arguing which is "correct" - start with the facts and if there are none then start asking questions.

All authors also agree on a further principle of bringing about successful change; *Challenge Your Assumptions*. By active listening we test our own assumptions by focussing on the areas of

disagreement. The only value of different opinions is to highlight the fact that there are conflicting assumptions. After reviewing the facts we may conclude that our assumptions are valid in which case we don't change our opinion. We may however conclude that one or more of our assumptions are invalid in which case when we change these assumptions we will have learned something and we will have changed. We may now find ourselves in agreement; our common ground has enlarged and we have progressed towards a win-win solution. Only when we believe that all our assumptions are correct, and we have evidence to support our belief, can we speak. Trevor Gay sums this principle of active listening in his phrase "*Listen but don't listen*" and Steven Covey in "*Seek first to understand before being understood*".

Often when we listen and challenge our own assumptions then many of the obstacles that we thought were in our path just disappear. Obstacles are often just mirages created by our own invalid assumptions. Whenever we find ourselves thinking "I can't do that" we are seeing an obstacle between us and our win-win goal, so we must ask ourselves "Why?" and keep asking "Why" until we have made explicit the assumptions that created the mental barrier. Sometimes this block is real; often it is an illusion. This simple method of asking "Why?" repeatedly is a powerful tool for uncovering unconscious assumptions. Ask yourself the "Why?" questions and listen to your own replies. Feeling stuck or helpless is just a state of mind and taking action by asking yourself "Why?" is a surprisingly easy way to make progress. Be mindful however that we find it uncomfortable to make our assumptions and motives explicit in public; in open debate it is gentler to start with "What, where, when, who and how?"

Our stated goal is to improve the quality and performance of the clinical service and the same principles apply to how we achieve this goal; we have to *Walk-the-Talk* and that means

- 1. Start with the end. Define your goal.**
- 2. Do something. Ask questions.**
- 3. Listen first. Challenge your assumptions.**
- 4. Learn. Improvement means change.**

Of course these concepts have been around for thousands of years, but their durability suggests there is wisdom we can gain from them.

The Tale of Three Hospitals

In response to externally imposed quality and performance targets, three similar hospitals decide to initiate service improvement projects in the two worst performing departments.

The first hospital decided to focus on the quality of the service by identifying and correcting the human errors through a process of no-blame reporting, sensitive investigation and focussed corrective action. The reduction in human errors in one department led directly to reduced work in correcting mistakes and an improvement in morale of the staff; both of which led to improved performance. However, in another department the focus on quality was interpreted as a "witch hunt" and led to a reduction in the morale of the staff, an increase in the time spent checking for possible mistakes and a reduction in performance.

The second hospital decided to focus on the performance of the service by identifying where long waits occurred, mapping the processes, rigorous investigation of the root causes and focussed corrective action. In one department the elimination of process bottlenecks reduced the long waits and cancellations, reduced frustration and stress, and led to an improvement in staff morale. In a different department the pressure to increase in performance was interpreted as "dead horse flogging" and was followed by an increase in errors, a reduction in the morale of the staff and eventually a fall in both the quality and performance of the service.

The third hospital considered that quality and performance were closely interdependent and that active management of both must occur simultaneously. The purpose and nature of the work in the two departments was analysed and both human and process errors were identified and corrected. One department responded well to an initial focus on quality and subsequently to improving the process bottlenecks that were then uncovered; the other department responded better to an initial focus on performance and subsequently to maintaining the quality of the service. In both cases the solution was matched with the root cause be it a quality or performance failure and by this balanced approach quality, staff morale and performance improved in both departments.

Three Wins

The purpose of this tale is to illustrate the four change principles being applied; the first having a clear goal - quality and performance improvement; the second the importance of action - the service improvement project; the third the need to listen first - identify if there is a quality or performance problem at the root; and the fourth the need to learn in order to change. The story also illustrates that blindly applying the four principles does not guarantee success. What is missing? Look at the first principle again - we are agreed *why* change is needed and have stated *what* the goal is, but we have not considered *how* a solution will be implemented. William Bridges describes the final stage of implementing a change as the *transition* and claims that much of the resistance to change derives from past experience of badly managed transitions. A transition has three stages: the *letting go*, the *neutral zone* and the *new beginning*. One of the critical parts of managing the transition is to allow those affected by the change to let go of old habits; and to do this we need to *sell the problem* rather than the solution. In other words, those who are affected by the change need to accept ownership of the problem before they will see the opportunity that any solution might offer.

One of the first things that we did as a team was to take ownership of the problem, the need to find ways to deliver a better quality service to our patients. This appears to have happened before I joined the team, probably because the "letting go" had already happened when the new Vascular Surgery department was created. We were already in the neutral zone between the old ways of working and the new ways that had yet to establish themselves. William Bridges describes the neutral zone as both a time of threat and also a time of opportunity because it is a chance to consider new solutions to old problems; an opportunity to be innovative. We established a monthly team meeting and at one of these early meetings we used a team development technique called a SWOT (strengths-weaknesses-opportunities-threats) analysis as a way to encourage the whole team to talk about their hopes and aspirations; to be open about where the anticipated problems lay; to agree on where the priorities were; and to agree who was going to do what. As part of this process I accepted ownership of the problems in the outpatient clinic and the leg ulcer service simply because I had an interest in the cause and treatment of leg ulcers. To me it seemed sensible to start with the outpatient clinic because this is where the patient journey started for us.

The team

A team is just a collection of people who work together to achieve a common goal. Experience teaches us that some teams are more successful than others and there seems to be no guaranteed formula for developing and leading a successful team. The library shelves are crammed with books that discuss leadership skills and despite this there does not seem to be a foolproof way to identify successful leaders; except in retrospect from their track record of success. A team may be formed deliberately to meet a specific goal but more commonly a team evolves over time. Members join and leave for many reasons; the composition of the team changes; the challenges the team faces will change and the "leadership" role will change.

A successful team appears to be more than the sum of its parts; demonstrating a form of synergy where the differences between the members appear to be complementary and constructive.

An unsuccessful team appears to be less than the sum of its parts; demonstrating dysfunctional behaviour that is both antagonistic and destructive.

Over 20 years ago Meredith Belbin observed the performance of management teams that were created deliberately during training courses and found, to his surprise, that the most successful teams did not automatically result from combining the brightest and best of the participants. Based on individual personality profiles he found that successful teams included a mixture of members with personality traits that suited them to specific roles. In other words each individual had a natural set of strengths for particular roles, and by combining individuals and assigning appropriate roles according to their strengths the team as a whole became stronger and more than the sum of its parts - as Stephen Covey puts it - the team had *synergised*.

Conversely it is possible to achieve the opposite outcome; when all the members of a team share the same strengths or there is a mismatch between the individual strengths and their assigned roles. In this situation then either competition for roles will occur or members will fail to achieve their potential because their strengths become weaknesses in this context; the team becomes "unbalanced" and dysfunctional and less than the sum of its parts!

The Belbin Team Roles

- Plant
- Resource Investigator
- Monitor-Evaluator
- Completer-Finisher
- Team Worker
- Implementer (previously Company Worker)
- Shaper
- Coordinator (previously Chairman)

The insight provided by Belbin's work is particularly relevant to team performance in periods of change because different roles are required for the different stages of the transition process.

Successful teams were also those that were better able to deal with change and Belbin showed that this requires a definable set of roles linked to personality profiles; in other words successful change teams can be designed to some degree. However, mapping the personality profile of each individual in order to "design" a team or assign an appropriate role is similar to asking them to state their assumptions and motives in public; it is a personal and sensitive area which most people find intimidating. By applying the third principle of change - *Listen First* - the whole team can be encouraged to learn the principles of team roles and *ask themselves* the necessary questions to gain a deeper insight into their own strengths and weaknesses and then identify their most appropriate role in the change process; the role that plays to their strengths rather than their weaknesses.

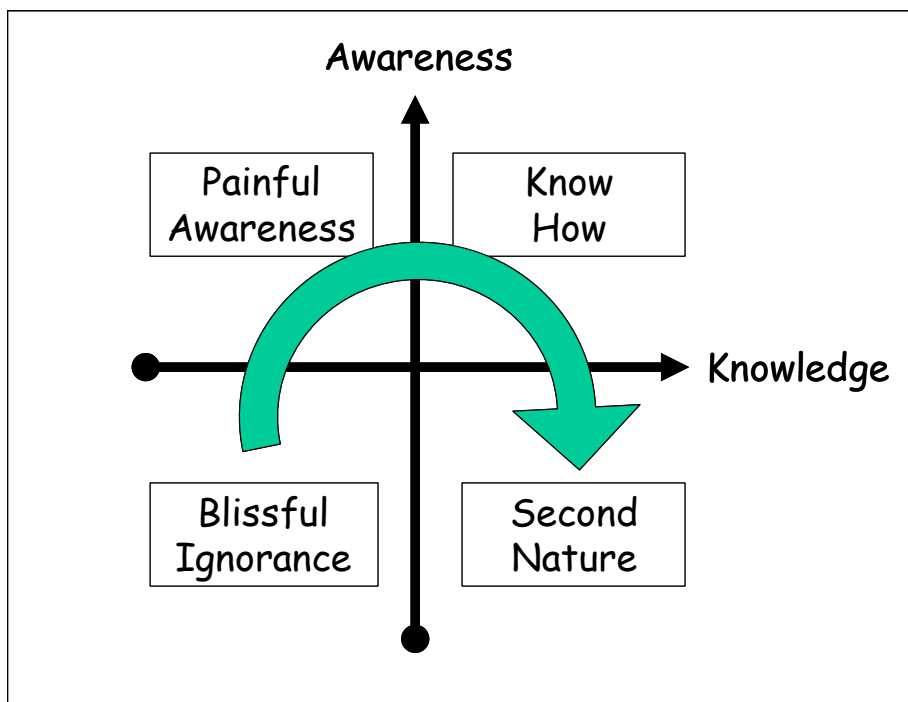
Experience suggests that this concept of team roles is a bit too rigid because it implies that individuals will only play their specific roles. In reality, an individual is more effective if they can adopt a range of roles. They will have a preferred role that they find easier and more natural, and through practice they will develop greater flexibility, capability and an ability to perform well in almost any situation. This type of deliberate role shifting is well exemplified by Edward De Bono's *Six Thinking Hats*; a conflict-defusing technique that is easy to learn, and that speeds up decision making for an individual and a group.

Some years ago, out of curiosity, I had my personality profile mapped and I "scored" highest on two dimensions - "Risk Avoidance" and "Innovation". Apparently this is an unusual combination as innovators are also usually risk-takers. The insight was more enlightening than threatening as it explained why I naturally avoid certain situations and find certain jobs irksome and unrewarding. In the challenge of improving the Vascular Surgery outpatient service it was these strengths that proved to be crucial - with my Innovator hat on I would naturally challenge the status quo and consider novel solutions, and with my Risk Avoider hat on I needed to have evidence that what was proposed would work before implementing it. While writing this book I used Belbin's Self Perception Inventory (SPI) to assess my strengths and weaknesses in the team roles and I came out stronger on the Shaper, Plant, Resource Investigator and Completer-Finisher roles which meant that someone else must have been compensating for my weaknesses in the Team Worker, Implementer, Coordinator and Monitor Evaluator roles. I have not asked the whole team to complete the SPI but I suspect that Sue Hayes, our research nurse, scores highly in those areas. Sue is the other half of the core team that steered the development, testing and implementation of the Leg Ulcer Telemedicine System. Sue's warmth, patience, tact and diplomacy, organisational and teaching skills are the perfect antidote to my impatience and intolerance that show through when progress is not fast enough or people do not demonstrate total commitment to the cause! Without someone like Sue on the team the project could not have succeeded.

The learning

Change involves learning and learning takes place before, during and after the change - at all stages of the transition. Just as the process of change can be painful so the process of learning can be uncomfortable. Change and learning are two views of the same thing. One widely used model of learning is the Conscious-Competence model where the path is described in four stages that are the combination of two factors; our insight and our knowledge. We all start with neither; we are not aware of what we don't know; we are not conscious of our lack of competence. This is the state of *blissful ignorance*. The next stage is entered when we become aware of our lack of knowledge, we become conscious of our lack of competence; either by making an error or by being asked a question that we can't

answer. This is the stage of *painful awareness* and the transition from *blissful ignorance* is generally an unrewarding experience because no one likes to have their lack of competence demonstrated, particularly in public. The third stage is entered when we willingly accept new knowledge and learn; we are conscious that we have become competent and this is usually a positive experience but requires effort to achieve and maintain. This is the state of *know how* and only in this state can we teach others. The final stage is only entered after a period of practise through repeated use of the knowledge to the point where we no longer have to consciously think to use that skill; it has become *second nature*.



The Conscious-Competence model of learning.

Some years ago I was given some juggling balls for Christmas. I was blissfully ignorant of how difficult juggling is and I assumed it would be an easy trick to learn. I was soon painfully aware of the truth; it is not easy – well not for me. I tried, got frustrated, gave up a few times, but determination got the better of me and eventually, after lots of practice, I succeeded. For me completing the path from painful awareness to know how brought a deep sense of achievement. For a while I still had to concentrate hard to avoid dropping the balls but with a lot more practice I can now juggle three balls without thinking about it; it has become second nature. My experience exactly mirrors the learning cycle; I knew that juggling was possible, I was motivated enough to put in the practice because I wanted to be able to do it, and the personal sense of achievement was the reward for the effort. This experience taught me a useful lesson; the rewards come from meeting challenges that are tough but achievable; so when building your own motivation start with problems that will stretch you but you know can be solved.

In fact I now use the juggling exercise to demonstrate that very often the only thing that stops us from doing something new is our incorrect assumption that we will fail. Most people can learn to do a two ball cascade in just a few minutes with the help of a teacher. First the basic elements of throwing and catching are checked using one ball; then the new steps are demonstrated and “programmed” by simple conscious repetition with one ball; and then with two balls. In my experience most people do not believe they will do it and are very surprised when they discover that they can. It is like magic; and the demonstration is as powerful for those watching as those participating. If we can learn to drop one progress limiting belief then we can learn to drop others.

The three stages of a transition represent the changes from one state to the other on the learning pathway. We have all experienced the pain of change and it is particularly memorable when we are left in the neutral zone; the state of painful awareness; where we cannot or do not learn how to achieve the new competence. It is poorly managed transitions and frustrated learning that leave people in the painful awareness stage of the transition and creates the emotional resistance to change. To be forced to change and then offered no help in crossing the neutral zone is a sign of poor leadership. For successful

Three Wins

change the whole team must *Walk-the-Talk* and that includes the leaders!

If the leaders are not challenging their own “comfort zones”, asking questions, learning and changing then it is difficult for them to convince anyone else to do the same. This is the great risk of change – a growing credibility gap between the “tellers” and the “doers”. If the gap is allowed to widen too far then the stage is set for revolution if the doers become impatient; or regression if the doers lose heart. The way forward is evolution – the doers and tellers challenging each other and learning from each other.