



Healthcare Guide

Partnerships and Perspectives of
Arab-German Cooperation

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Preface

It is our pleasure and honour to present to you the highlights of the Arab-German relations in healthcare in the second edition of the “Healthcare Guide”. This manual is part of the series of sector specific publications issued by Ghorfa Arab-German Chamber of Commerce and Industry such as: “Arab-German Yearbook – Construction and Consulting” or the “Energy Guide – Partnerships and Perspectives of Arab-German Cooperation”. We hope that the “Healthcare Guide” will enhance the promotion of Arab-German business relations in healthcare.

The healthcare sector is one of the fastest growing fields of Arab-German business cooperation. With the high population growth, increasing life expectancy and higher income, the demand for high quality health services is increasing. Therefore, the Arab countries invest massively in their healthcare systems and can benefit greatly from German expertise. In 2012, hospital schemes worth 35 billion U.S. dollars were planned and under way in the GCC alone. For the whole MENA region the Economist Intelligence Unit is expecting a growth in healthcare spending of over 6 per cent for 2013.

A main driver of this growth is the healthcare sector in Saudi Arabia with investments of 4.3 billion U.S. dollars for five medical cities as well as 26.7 billion U.S. dollars for 1,000 Primary Health Centres and 19 new hospitals all over the Kingdom.

Numerous German business delegations to the Arab world are a sign of the growing demand for Arab-German relations in the healthcare industry. The increasing attention for cooperation is also reflected by the success of the German-Arab Health Forum, which is organised by Ghorfa for the sixth time this year.

First and foremost, healthcare is the key to a healthy and lively society. Furthermore, investments in the healthcare sector positively affect other areas, such as construction through planning and building of hospitals, education through training of medical staff, and the IT sector through development of software solutions for hospitals as well as the medical tourism sector. Therefore, healthcare integrates a lot of disciplines and branches that are important for Arab-German business relations. The projects that we present in this edition are proof of true Arab-German cooperation and understanding.

We would like to express our gratitude to the member companies of the Ghorfa for their input during the preparation of this publication. Their efforts and projects are of mutual benefit for Arab countries as well as Germany. In particular, this applies to those companies who illustrate their ongoing projects in this year’s edition or who are active members of the working group “Healthcare”. We thank our board member Dr. Claus W. Biermann, Director Market Development & Innovation Healthcare, GE Germany, and Ms. Rafaela Aguilera Alvarez, Head of Marketing/Business Development/Member Services, for their commitment and dedication to the publication and all matters of the working group. We would like to express our thanks to Ms. Traudl Kupfer and Ms. Birgit Tümmers for their work and effort to realise this book project.

With those helpful insights into the Arab-German healthcare business we wish you and your company the best of success in Arab-German business endeavors.



Prof. Dr. med.
Ossama bin Abdul
Majed Shobokshi



Dr. Thomas Bach

Special Topics





Opening of a new Daman branch in the Western Region of Abu Dhabi

Universal Health Coverage in Abu Dhabi

Munich Health Daman Holding

Across the MENA region and beyond Abu Dhabi is acclaimed for having successfully introduced mandatory health coverage through the implementation of a tiered health insurance system based on an innovative public-private partnership model between the government of Abu Dhabi and Munich Re. Today, over 98% of the population have access to affordable healthcare via an insurance card that allows access to a full network of licensed providers across the private and public sector.

Abu Dhabi is the capital of the United Arab Emirates. It is the largest and wealthiest of the seven Emirates. In the last decades, it has shown rapid economic development, including substantial investment in its healthcare infrastructure. At the same time, Abu Dhabi is heavily dependent on expatriates for its fast-growing economy. Out of the 2.3 million people in Abu Dhabi, approximately 81% are expatriates and only 19% are UAE Nationals. In the UAE the constitution ensures access to healthcare for its citizens and the strategic vision of Abu Dhabi even builds on the healthcare sector as a contributor to its economic diversification and as a sector that attracts private investment.

Thus, the Abu Dhabi Government started a project in 2005 to systematically reform its healthcare system with the objective of:

- ensuring affordable access to essential healthcare for all people living and working in the Emirate of Abu Dhabi
- improving the quality of healthcare across the Emirate by providing fair and reliable funding systems
- gradually reducing the need for government subsidies over the coming years.

The introduction of mandatory health insurance has been a key ingredient in the reform process to achieve these objectives.

A solid foundation

To establish a sound administrative and legal basis for a fundamental health system reform, the Abu Dhabi government passed a series of laws, by-laws and decrees, starting in 2005 with the Abu Dhabi Health Insurance Law and its associated by-law in 2006, which obligated mandatory, employer-financed health insurance for all expatriates residing in the Emirate and outlined its tiered introduction. In parallel, a decree in 2005 created the basis for the formation of the country's first specialised health insurer, the National Health Insurance Company – Daman.

On the basis of a public tender in 2005, Munich Re was awarded the role of a strategic partner to build up and manage Daman. As a public-private partnership between the government of Abu Dhabi and Munich Re, Daman ensured the professional implementation of the law. Subsequently, the Health Authority Abu Dhabi (HAAD), an agency in charge of all regulatory aspects in relation to the Health Insurance Law, has been established in 2007. The newly created government-owned company called Abu Dhabi Health Services Co. (SEHA) is in charge of the development and management of all public hospitals and clinics. In 2008, the concept for health insurance for UAE Nationals under the “Thiqa” programme was introduced. This regulatory and institutional framework paved the way for the implementation of an affordable and efficient healthcare system that meets international standards.

A three-tiered system

Reflecting the structure of the Abu Dhabi population, the introduction of mandatory health insurance was based on a three-tiered system. The first tier consists of a government-subsidised “Basic” product for low-income expatriates with a strict income threshold of AED 5,000 per month and a standard non-risk-based premium of AED 600 per year. Daman is the exclusive provider of the basic product, which is reinsured by the government of Abu Dhabi. The second tier, the “Enhanced” products, are based on risk underwriting and are reinsured by Daman and Munich Re and offered to more affluent expatriates. This product category varies in terms of benefits and area of coverage and competes in an open market with more than 35 insurance companies licensed by HAAD. The third tier covers all UAE nationals under the “Thiqa” programme.

While formally called health insurance, the programme is technically a very comprehensive social scheme paid for by the Abu Dhabi government and exclusively administered by Daman in the role of a third-party administrator. Beneficiaries have free choice amongst public and private providers and the advantage of a direct billing process between providers and payers. Overall, the Abu Dhabi system guarantees that all citizens in the Emirate, irrespective of nationality, income and social status, have access to health protection. Daman and its partner Munich Re played a major role in the timely implementation of the scheme.



Launch of Daman Qatar



Signing ceremony of the extension of the cooperation agreements

Phased Implementation

With the legal framework in place, the actual set-up of Daman started in November 2005. After signing contracts for a long-term strategic partnership in December, Daman and Munich Re had six months to prepare the company's operations for the rollout of phase one. The by-law obligated all government entities and those private entities employing more than 1,000 people to start offering health insurance to their employees from 1 July 2006. By the end of 2006, Daman had a membership base of approximately 250,000 insured persons.

The second phase came into effect on 1 January 2007 and covered the entire expatriate population, which increased Daman's member count to 950,000 by the end of 2007. On 1 June 2008 the last phase was rolled out, providing compulsory health insurance to all UAE nationals.

At the end of 2008 and less than two years after implementation of the Health Insurance Law, more than two million people, approximately 95% of the population, were covered by mandatory health insurance. Health insurance became the fastest-growing segment of the entire insurance industry in the UAE with a compound annual growth rate of over 40% for the last five years performed by a diverse mix of local, regional, and international insurance players.

Over time, Daman voluntarily ceded most of its monopolies, including its exclusivity in supplying health insurance to government entities and government-owned companies, as well as its direct billing monopoly with the public sector hospitals, which are now free to contract with any licensed health insurer in the Emirate. This proactive step contributed a lot to achieving fairer competition while having such a dominant player with significant purchasing power in a maturing market. Daman's market share in the competitive market segment of enhanced products is now approximately 40%. Today, over 1,500 employees serve more than 2.4 million members in the UAE, making Daman a role model and market leader in the healthcare industry.

The Walkathon Diabetes at the Formula 1 race track at Yas Island, Abu Dhabi



A step beyond

With regard to the speed of implementation and the achievements of universality of insurance coverage, the introduction of a mandatory health insurance in Abu Dhabi is definitely recognised as a benchmark in the region. But looking beyond the offering of comprehensive health insurance solutions for expatriates and UAE nationals, Daman brings a wide range of innovative health services to the market, provides strong support to the regulator to constantly enhance healthcare quality standards and helps to increase financial as well as clinical transparency and cost control. Starting in 2008, Daman initiated various advanced preventive services to shape beneficiaries' behaviour and increase the quality and financial sustainability of the health insurance system. Examples include patient screening and education on health topics, dedicated disease management programmes for chronic diseases such as diabetes or asthma, wellness and maternity programmes, and case management for high-risk patients.

The launch of the Daman online portal is an initiative that provides all health-insurance-related services online, including paperless claims submission, endorsements, quotation requests, policy renewals, a health forum, and other tools catering for the convenience of all stakeholders. One of the latest services to members is the Daman Customer Club, which promotes an active life and healthy living. In addition to other state-of-the-art IT initiatives, Munich Health, the health segment of Munich Re, developed, jointly with Daman, a comprehensive claims rule engine. This solid foundation for reliable medical evaluations ensures savings in medical and operational expenses and the detects fraud and abuse.

There are many more projects and initiatives in the pipeline, such as pharmacy benefit management, telemedicine or the establishment of a Daman academy. Hosting healthcare events and awareness campaigns reflects Daman's dedication towards community health and corporate social responsibility.

A model for regional expansion

Abu Dhabi is often seen as a model to be emulated by other countries in the region in addressing their specific healthcare challenges. The creation of a specialised health insurer as a partner to the government was one of the main contributors to the successful implementation of mandatory health insurance in Abu Dhabi. Moreover, the concept benefited from the cooperation with an international player, ensuring fast access to knowledge, skills, and experts. Based on the joint achievements in Abu Dhabi, both partners decided to further focus on strengthening their partnership. Underpinning its commitment to the Daman business model and the belief in its management, Munich Re took a 20% ownership stake in the com-

pany in 2008, which was initially owned 100% by the government. In 2010, the partners founded a new venture based in Abu Dhabi for joint regional expansion in the MENA region, called Munich Health Daman Holding. The entity combines the local expertise and resources from Daman and the global know-how from Munich Health focusing on knowledge sharing in the area of primary health insurance and health services. The initial common project was the market entry in Qatar. The launch and management of the first specialised health insurer, Daman Health Insurance Qatar, in July 2012, is a great example of regional knowledge transfer adapted to local needs while

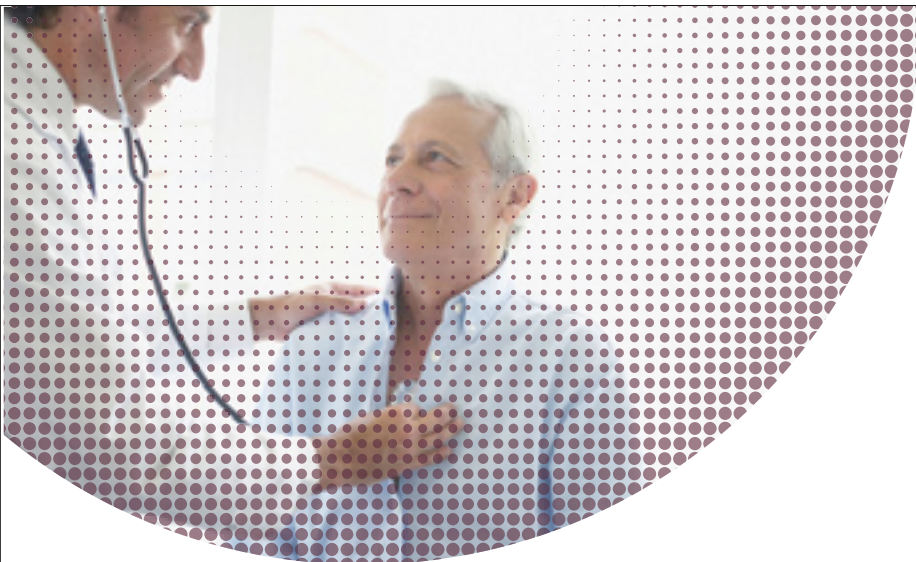
implementing international standards. At the same time, both partners supported the build-up of a primary health insurance venture in Saudi Arabia, Saudi Enaya Cooperative Insurance Company, which went live in December 2012. Countries like Saudi Arabia and the Emirate of Abu Dhabi are already benefiting from the introduction of mandatory health insurance and others, like Qatar, are currently in the process of reforming their healthcare systems. Overall, the need for sustainable healthcare financing solutions is increasing in the MEA region, where the various countries require tailor-made solutions in both the private and government sector.



Silke Kaufmann
Director Business Development & Projects
Munich Health Daman Holding



Dr. Michael Bitzer
CEO
Munich Health Daman Holding



Excellent healthcare service and insurance can only be built on trust backed by experience. Munich Health Daman Holding offers the global strength and local knowledge required to set up and optimise healthcare operations.

Talk to us about what our success model can do for your region – because we care.

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Successful partnerships
build on trust.



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Head of Company:

Dr. Michael Bitzer has worked for many years at Munich Re (Group) in leading management positions. Currently, he has overall responsibility as CEO for Munich Health MEA and the Munich Health Daman Holding. At the same time, he is also CEO of the National Health Insurance Company – Daman in Abu Dhabi, UAE, which he joined in November 2005. Dr. Bitzer was born in Leverkusen, Germany in 1961. He holds a degree in business administration and gained a PhD in medicine. He also served in the German Army for many years, holding various positions in outpatient clinics, hospitals, administration and management consultancies

In Munich Health, Munich Re pools its worldwide health know-how in an organisation that combines primary insurance, reinsurance and health services with more than 5,000 healthcare professionals and a proven track record of over 15 years in the MEA region. In 2006, the National Health Insurance Company – Daman, the first specialised primary health insurer in the UAE – was established as a public-private partnership between Munich Health and the government of Abu Dhabi. Munich Health played a major role in drafting and developing the legislative and regulatory environment, including actual incorporation and management of the organisation. Further, Munich Health is the risk carrier for certain product lines and a shareholder of the company. Today, Daman serves more than 2.6 million members. This successful cooperation laid the foundations for a long-term partnership between Daman and Munich Health beyond the borders of Abu Dhabi.

Consequently, Munich Health Daman Holding was founded in 2010 to combine the local expertise and resources of Daman with the global know-how of Munich Health. It is a vehicle for regional knowledge transfer focusing on the MENA region and emerging markets. Daman Health Insurance Qatar and Saudi Enaya, both launched in 2012, enlarged the portfolio further.

The range of services includes:

New venture activities: JV, greenfield, PPP and further cooperations; Governmental consulting services: health system transformation, health financing and operational management support; Health services: disease management/corporate health programmes, international patient care, telemedicine, international network management; Health tools: MedNext – an end-to-end IT solution with strengths in claims automation and policy management, Claims Rule Engine – a solid foundation for reliable medical evaluations

Award Ceremony at Insurex 2012 – Daman Health was the insurer of the Year





Panoramic view of the state capital Mainz, © Photo: Mainz



Healthcare Management in Rheinland-Pfalz

“No matter what country, culture, or religion, we are all connected by the knowledge that health and maintaining or restoring it is mankind’s prime major value, and therefore has a high priority all around the world.”

Eveline Lemke, *Deputy Chief Minister* of the state of Rheinland-Pfalz.

Welcome to Rheinland-Pfalz – home of innovative business

The German state of Rheinland-Pfalz is a strong location of the healthcare industry. It covers the entire range of healthcare technology and services, from medical equipment to training and research.

Rheinland-Pfalz is a business location in the heart of Europe. From here, most European capitals can be reached in less than two hours via Frankfurt airport. Our roads and railways, airports and waterways have become a hub of the economic infra-

structure in Europe. The dense transportation network in Rheinland-Pfalz ensures that people and products can reach the centre of activity quickly. Continuous economic growth, a dynamic job market with the third lowest unemployment rate in Germany, a very high export ratio of nearly 54 percent, and a very high quality of living contribute to making Rheinland-Pfalz and its healthy small-business economic structure one of the leading business locations in Germany.

A strong alliance – system solutions from Rheinland-Pfalz

In order to continue to develop future markets, Rheinland-Pfalz is concentrating its efforts on developing what are known as system solutions and focuses on international cooperation. The healthcare business, an important market of the future for Rheinland-Pfalz, has a high potential of development and innovation.

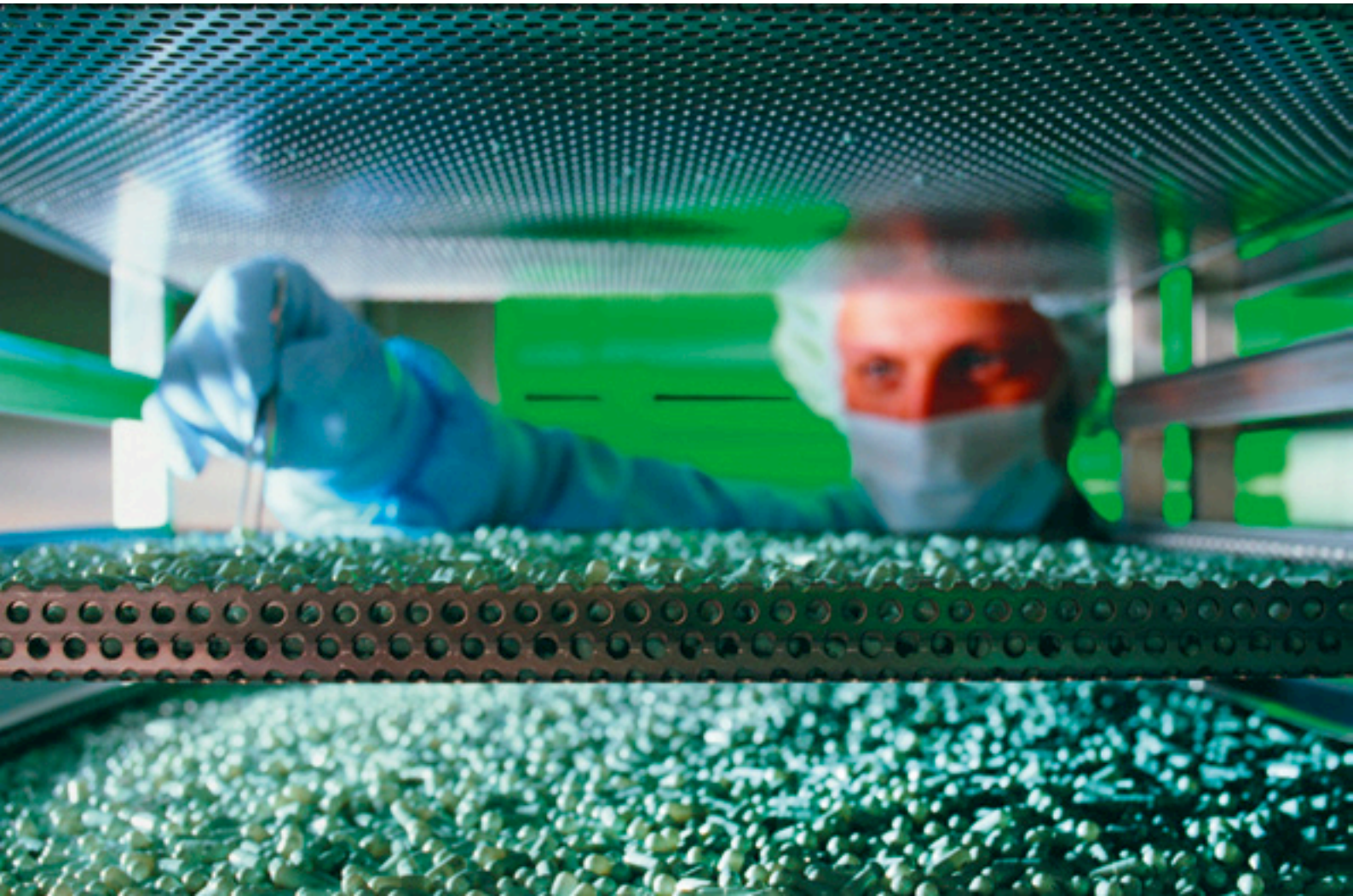
Its strength and trademark is the whole spectrum of coordinated holistic healthcare—from prevention, preclinical care, acute care, rehabilitation, up to medical technical and pharmaceutical products and services. The linkage of measures and interdisciplinary cooperation along the entire healthcare chain can lead to optimal results for the benefit of the people.

Stroke and diabetes prevention – appropriate solutions from one source

Rheinland-Pfalz has set itself the task of offering combined competencies and holistic approaches to healthcare. Networks have been created that offer customised integrated solutions from one source, depending on the disease.

With its Experts in Stroke network and the Diabetes Cluster Rheinland-Pfalz, the state has achieved a unique position in stroke management and diabetes care with an international demand. For example, in the Emirate of Dubai, the first stroke unit in the United Arab Emirates was established with the help of experts from Rheinland-Pfalz – as a result of an intensive cooperation of the partners with the health authorities in Dubai under the moderation of the state of Rheinland-Pfalz. In the Sultanate of Oman, the first steps to setting up a telemedicine network for strokes have been done to ensure comprehensive medical care. The long-term goal is to form a network of stroke centres with a telemedicine centre in Muscat in cooperation with the state of Rheinland-Pfalz.

The Boehringer Ingelheim Group with its head office in Ingelheim is among the 20 leading pharmaceutical companies in the world.



Experts on Stroke – a competent team solution for optimal stroke care

With Experts in Stroke, Rheinland-Pfalz presents an integrated system solution for stroke care. The partners offer innovative technology, services, and high-quality products for the care of stroke patients.

An enormous medical advance in the care of strokes is intravenous thrombolysis, which was developed by Germany's largest pharmaceutical research company Boehringer Ingelheim. This is the world's only approved acute therapy for an acute ischaemic stroke, if there are no contraindications. Good and close cooperation with the preclinical ambulance service in advance and during aftercare play a significant role in the success of stroke treatment.

Important partners in this cooperation are the University Medical Center of the Johannes Gutenberg University in Mainz and Ludwigshafen Hospital with their respective stroke units and specialisation programmes. With its innovative stroke risk analysis (SRA) procedure, the mid-sized business apoplex medical technologies GmbH has earned an international reputation. On the basis of a mathematical analysis, risk factors, for example atrial fibrillation, the most dangerous individual risk factor for stroke, can be detected and treated in time.

The German Centre for Emergency Medicine and Information Technology at the Fraunhofer Institute for Experimental Software Engineering IESE in Kaiserslautern supports all institutions involved in research and development for emergency patient care. This includes structure and process analyses in preclinical and clinical emergency care, the design and establishment of deployment databases, expert systems, communication structures, and telemedicine networks. The company maxQ of bfw – enterprise of education, which is involved in many networks of the healthcare and professional associations, offers training and consultancy all along the healthcare chain.

Stroke care in Rheinland-Pfalz is based on interdisciplinary system solutions, in which medical service providers and pharmaceutical and medical technical companies along the entire healthcare chain are involved.



Pharmaceutical tubular glass from SCHOTT has been a standard in the manufacturing of high-quality pharmaceutical primary packaging for almost 100 years.



Diabetes Cluster Rheinland-Pfalz – a unique feature

Rheinland-Pfalz has a Diabetes Cluster that closely combines industrial research and development, university research and education, and interdisciplinary healthcare throughout the entire value added chain.

With Novo Nordisk Pharma GmbH, Rheinland-Pfalz is the headquarters in Germany of the market leader for insulin production and with abbvie GmbH & KG the state is home to one of the leading suppliers of blood sugar testing devices. Abbott Vascular also has technologies for treating vascular complications and Lohmann & Rauscher GmbH is an international company that provides technology for treating chronic wounds and the diabetic foot syndrome. Boehringer Ingelheim Pharma GmbH & Co. KG provides drugs for treating type 2 diabetes and its complications.

The SCHOTT AG technology corporation is the world's leading supplier of glass cartridges for administering insulin. The cartridges are used in an insulin pen, which the patient uses to inject insulin. The institute for clinical research and development (ikfe GmbH) in Mainz organises a comprehensive international service for the design and execution of clinical research. With the vascular surgery/endocrinology department at the University Medical Center of the Johannes Gutenberg University in Mainz, the medically necessary linkage of out-patient and in-patient care is reproduced in an integrated care programme with a quality management process.

Thus, diabetes care in Rheinland-Pfalz has access to system solutions and coordinated treatment concepts in all phases of the disease and can develop innovative new solutions.

In dialogue with the world

Trust is the most important foundation in a relationship between countries and people. The focus is on respect for and acknowledgment of different cultures and traditions. We are bound together by our common goal of promoting the transnational and interdisciplinary exchange of knowledge and ensuring a high level of healthcare in the interest of the people. We and our partners look forward to the dialogue with you!



NovoPen Echo®
The refillable Pen from Novo Nordisk was developed to fit the needs of kids. It makes doses in half steps possible and has also a simple memory function.

Rheinland-Pfalz signs cooperation with Dubai



Dörte Büchel
Chief Officer Health Economy
Ministry for Economic Affairs,
Climate Protection, Energy and Regional
Planning of the State Rheinland-Pfalz



Conference Excellence across Borders: Gerd-Walter Rohm, initiator of Excellence across Borders, Bayer HealthCare; Dr. Abdulrazzaq Ali Al Madani, Chairman of the Conference and Chief Executive Officer DubaiHospital; Harald Liedtke, Managing Director Bayer Middle East fze (from left to right). Photo: Bayer

Diabetes Management Across Borders

Bayer HealthCare

Diabetes is one of the growing tasks that health and economic systems are facing within the next years. Bayer HealthCare has initiated the “Excellence across Borders” programme to spread successful strategies in diabetes management by regionally exchanging know-how and experience.

Improving the conditions for people living with diabetes will undoubtedly be one of the most challenging issues of the 21st century. According to the International Diabetes Federation (IDF), Diabetes has affected 366 million people worldwide in 2011 and caused 4.6 million deaths. It is estimated that by 2030 up to 552 million will be affected by this metabolic disorder. Although there is extensive knowledge of the management of the disease, countries currently do not benefit to the same extent from the current options. Care and treatment of diabetes patients vary widely depending on different economic, medical, educational and cultural situations.

The “Excellence across Borders” programme is intended to share excellence among experts and associations in Middle Eastern, African, and European countries. It brings together specialists and health care representatives from Middle Eastern, African, and selected European countries to share their expertise and learn how diagnosis, therapy, and prevention of diabetes are working in different countries. The first symposium within the framework of this new programme was held in Dubai, United Arab Emirates, in 2012. The first conference was chaired by Dr. Abdulrazzaq Ali Al Madani, consultant physician and endocrinologist and chief executive officer at Dubai Hospital. Prof. Dr. Hassan Hussien Fatani, professor in Internal Medicine at King Abdulaziz University in Jeddah, with special inter-

est in metabolic and endocrine disease at King Abdulaziz University in Jeddah, represents Saudi Arabia in this initiative. Further participating countries are Russia, Egypt, and Algeria.

By reflecting the different local conditions, the participants can exchange views and address regional differences. They may learn from one another and get inspired and motivated to search for new local options in diagnosing, treating, and preventing diabetes. Thus, the networks are a unique opportunity for country representatives to gain know-how and to spread the ideas for medical and technical improvement in their homelands.

The need for new local perspectives is urgent in the participating regions of the first symposium. With Bahrain, Egypt, Kuwait, Oman, Saudi Arabia, and the United Arab Emirates, six countries of the Mena region (Middle East and Northern Africa) are among the world’s top ten countries with the highest diabetes prevalence. The selected topics of the first symposium therefore included obesity and lifestyle management in diabetes, disease prevention and early detection as well as successful blood glucose monitoring.

Building on more than forty years of heritage in pioneering diabetes management, Bayer HealthCare actively supports the approach of excellence-oriented networks to exchange knowledge and experience regionally. The company helps planning

Prevalence*(%) of diabetes in (20–79 years), 2011



and executing the annual meetings that intend to improve the country’s individual resource and cost-effectiveness in diabetes management. In the future, two symposiums will be organized each year, hosting key opinion leaders from each participating country of the Middle East, Africa, Europe, and Commonwealth of Independent State countries.

Diabetes prevalence in the MENA region and CIS countries

Diabetes has turned into one of the world’s major health challenges of the 21st century. The International Diabetes Federation (IDF) estimates that about 435 million people will be diagnosed with diabetes by 2030. Especially low and middle income countries are facing the greatest burden of the disease. The five countries with the largest numbers of people with diabetes are India, China, the United States, Russia, and Brazil. The five countries with the highest diabetes prevalence in the adult population are Nauru, the United Arab Emirates, Saudi Arabia, Mauritius, and Bahrain.

Diabetes in the MENA region

Dubai, the host of the first “Excellence across Borders” symposium in 2012, is part of the MENA region, in which socio-economic changes have contributed to an immense growth of diabetes during the past twenty years.

In 2010, almost 27 million people in the MENA region were living with diabetes. This number equals 7.7% of the total adult population and is expected to almost double up to 52 million by 2030.

Six countries of the MENA region are among the world’s top ten countries for diabetes prevalence, among others the

United Arab Emirates (UAE), the Kingdom of Saudi Arabia (KSA), and Egypt. People from the MENA region are generally more prone to have diabetes due to ethnicity and radical lifestyle changes. The effects of a growing affluent society like an ageing population, a doubled birthrate, less physical exercise, and a rather unhealthy diet have contributed to the fact that the disease has a devastating impact across the region. The latest figures show an average diabetes rate of 10% throughout the area. Regional and national expenditures on diabetes reached up to 14% of total healthcare expenditures in 2010.

Diabetes in Russia

Almost 10 million people in Russia were living with diabetes in 2010. This equals to 9% of Russia’s total population. With better prevention through moderate exercise and a balanced diet, according to the World Health Organization up to 80% of all type 2 diabetes cases could be prevented in Russia.

Striving for innovative solutions and improving the lives of people with diabetes

In the rapidly growing self-testing market, Bayer HealthCare focuses its research and development activities on strengthening its core product lines and on expanding into high growth/high margin segments of the market. Through internal development activities and collaborations with partners, easy-to-use blood glucose monitoring systems are offered to the mass market, meeting the individual needs of patients with diabetes. With its high accuracy standards, the company has been able to maintain its global leadership position in the market and to set international standards in diabetes management. Looking back on an impressive tradition of developing innovative med-

Prevalence*(%) of diabetes in (20–79 years), 2030



ical products for diabetes management, the company under the name of Miles Laboratories, launched the first effervescent urine glucose testing tablet in 1941. Some 20 years later, scientists presented the first test strips for glucose in blood, which enabled millions of people with diabetes to monitor blood sugar levels quickly and conveniently at home. In 1969, the first portable blood glucose meter was introduced through the former Ames division. The device, however, weighed almost one kilo and required relatively large amounts of blood to determine the share of glucose. The first personal meter followed in 1981. Since then, Bayer HealthCare has been continuously working in the fields of research and technology to improve its products for successful diabetes self-management. In blood glucose monitoring systems, it has advanced its technical features towards smaller, more easy-to-use systems that require smaller blood samples, generate results more quickly and accurately, and offer personalised features that help patients reduce common testing errors.

Connecting people with diabetes wand their caregivers

In order to be successful in the diabetes business, it is important to stay attuned to the expectations of today’s empowered customers. To give patients and healthcare professionals useful and up-to-date information on diabetes-related topics, educational websites are hosted and newsletters as well as booklets in a large number of countries are provided. Partnerships with regional healthcare professionals that provide training for diabetes nurses and doctors in topics related to diabetes management and care are also established. In order to enforce better diabetes management worldwide actively, the cooperation

with key diabetes organisations such as the International Diabetes Federation (IDF), the European Association for the study of diabetes (EASD), the Federation of European Nurses in Diabetes (FEND), and a wide range of local diabetes organisations is essential.

Further Information:

- DF Diabetes Atlas, 5th edition, Nov 2011, www.idf.org/diabetesatlas/5e/the-global-burden
- Diabetes in the Mena region: www.idf.org/latest-diabetes-figures-paint-grim-global-picture
- MENA Diabetes Leadership Forum 2010 Dubai. Facts about diabetes in the MENA region. Available at <http://tinyurl.com/awwqsxr> (www.menadiabetesleadershipforum.com; PDF download)



Dr. Gisela Lenz
Global Media Relations/Consumer Health
Bayer HealthCare



Dr. Katrin Kammer-Wilke
Head of Communications Middle East,
Bayer Middle East



King Fahad Medical City

Gear Up! Shifting to Next Generation eHealth Technologies

CompuGroup Medical AG (CGM)

King Fahad Medical City (KFMC) was established under the supervision of the Ministry of Health and inaugurated by His Royal Highness, Prince Abdullah Bin Abdulaziz Al Saud on 5 October 2004 (21 Shaban 1425H) in order to develop and enhance the level of healthcare provided to the citizens of the Kingdom of Saudi Arabia.

King Fahad Medical City is the largest and the most reputable medical facility in the Middle East that specialises in treating rare and specialty diseases. The complex located in the north of Riyadh (Sulaimaniyah area) incorporates a 459 bed main hospital with specialty clinics for diagnosing and treating various diseases, a 159 bed rehabilitation hospital, a 246 bed children's hospital, and a 236 bed maternity hospital. In addition to the hospitals, KFMC has four centres – Diabetes Center, Prince Salman Heart Center, Prince Sultan Oncology Center, and Neurosciences Center. KFMC has more than 5,000 employees, with a target of 10,000 in the near future. Before long, KFMC shall become the leading tertiary care referral centre throughout the region for the treatment of rare and complex medical cases that other facilities are unable to treat.

Health information management systems require specialised software platforms to implement business functionality required for healthcare environments. Improved patient services, streamline processes, reduced administrative costs, to put this briefly an increasingly complex healthcare environment demands powerful, strategic tools. Better clinical outcomes and reduced medical errors require advanced clinical/hospital information systems.

The project management and implementation approach, which has been already utilised in King Fahad Medical City with the collaborative environment with CompuGroup Medical (CGM) and KFMC teams, aim to provide a flexible and effi-

cient approach designed to give an understanding of the nature of the project and create an environment in which the project can succeed while the implementation risks are significantly reduced, and which enables precise management of critical elements to achieve the ultimate objectives.

“Successful healthcare IT solutions require fully committed project partners rather than product suppliers.” With this knowledge, King Fahad Medical City and CGM as a one single project team worked together for provision and installation of all required software and services for a fully working system to meet KFMC's objectives in a cost effective manner. CGM used its vast knowledge and experience within the software industry to a creative solution.

Healthcare is not only a complex but also a continuously changing environment; almost every day new concepts, knowledge, laws and regulations, approaches, technologies, and devices are introduced. As a result of these, healthcare enterprises are also changing, evolving and growing. CGM HIS offers three product families of hospital information systems to cover all the efforts of the different market segments.

CGM delivers high quality systems via focusing only on software developments and application areas. We follow very closely latest technology trends and improvements in health IT by using our entire experience and knowledge in developing new and unique solutions.



Integrated hospital information system – one single system

King Fahad Medical City, apart from being the largest and most reputable medical facility in the Middle East, does not only need the best solutions and best implementation that are available today, but also long-term sustainability. CGM HIS has already accomplished numerous similar projects and is a partner of King Fahad Medical City in “transferring” not only its state-of-the-art technology, but also, and more importantly, its know-how, experience, and best practices gained from hundreds of HIT projects. Therefore, King Fahad Medical City has decided to implement CORTEX® integrated Hospital Information Management System through a single system rather than using separate systems for each function and department. As a result of the implementation process, many stunning results were achieved. Among these King Fahad Medical City is becoming a fully electronic medical city, the first HL7 based HIS/RIS integration in the Kingdom of Saudi Arabia, which ultimately led to the first filmless hospital in the Kingdom.

CORTEX® Integrated Hospital Management Information System Environment is a novel, advanced approach to healthcare informatics. It combines most advanced technologies of computer medicine, information processing, resource planning, data communication, and clinical systems, to form a unique solution to everyday problems of health and patient care organisations. CORTEX® provides a comprehensive and integrative support to the whole range of healthcare activities starting at the level of a hospital, through a cluster of medical centres and clinics, to a nation-wide network of medical institutions. CORTEX®’s emphasis is on the reduction of operating costs of medical centres, the reduction of costs of diagnoses and patient treatments, the improvement of on-site availability of detailed, updated, and adequate medical information, and the improvement of functional and physical links between medical centres, out-patient clinics, mobile rescue units, field hospitals, etc.

Healthcare solutions require different expertise and multi-disciplinary backgrounds and approaches almost at every level of activities. Providing a solution at a satisfactory level, requires the utilisation of know-how and lesson-learned via past and existing experiences. Hence, applying best practices in our new and on-going projects also enable us to start with a system that almost meets customer requirements and, hence, minimises development and/or customisation efforts.

As KFMC demands new additional functionalities, enhancements for the existing HIS modules, and deserves the highest level of system integrity, interoperability, and consistency, CGM provides a real process-centric (rather than function centric), workflow based, object-oriented, 3/n-tiered system, which utilises internet technologies together with top-of-the-line skills to manage the project with high experience in the HIT field. This approach will minimise problems and risks, and results in accomplishing the project successfully. With the HIS solutions provided by CGM, KFMC is assured that the accurate data timely from all processes and participants, which will form the basis of the management information and decision making studies of KFMC, will be achieved.

Cutting Edge Technology

King Fahad Medical City is always aiming to have the most advanced technologies of computer medicine, information processing, resource planning, data communication, and clinical systems, to form a unique solution to everyday problems of health and patient care organisations.

It is absolutely clear that King Fahad Medical City wants to enhance the quality, availability, continuity, standardisation, equity, manageability, and reliability of healthcare services provided in KFMC dramatically, while controlling and reducing their costs. The system should assure that computer perform

all the activities from the registration of patients to the discharge of all the activities. This eliminates any leakage in the recording of activities, usage of resources, security violations, which means, all the activities are recorded, monitored, measured, and managed.

CGM develops and presents new technologies and products by making continuous research and development on both software technologies and health information systems. CGM is completely focused on these topics in order to provide the highest and latest technology and methodology available in this sector.

CGM CNG is a totally new software-environment that facilitates to build subsystems, modules and applications on the same platform in order to share the same foundation core and repositories (system, object, and data) for all subsystems involved.

CORTTEX® Next Generation is a fully web-based healthcare platform inspired by CGM CORTTEX®. The entire technical infrastructure has been completely redesigned and redeveloped and has been set on state-of-the-art technologies.

CGM CNG is a new healthcare system, which includes long-term know-how built with state-of-art-technologies. The entire technical infrastructure has been renewed with up-to-date technologies and has been completely redesigned to a fully web-based environment. Clients with a browser and Microsoft® Silverlight add-on, utilise applications served via web services. CGM CNG provides a highly flexible, extensible, sustainable, CORTTEX® Integrated Hospital Management Information System and survivable system, which enables the health enterprise to save its investment not only for today, but also for the future.

icNG – the new mobile application for iPads®



Electronic patient record

King Fahad Medical City needed to establish a fully online process centric virtual healthcare environment based on the concept of electronic patient records in order to meet the needs of such a gross and complicated healthcare facility, and to prevent inconveniences for the patients.

CGM CNG is a fully electronic medical record oriented system and empowered with a comprehensive EPR, which manages all patient relevant medical information. All the medical and administrative information kept about a patient can be viewed with a single view, with the complete history and auditing information.

King Fahad Medical City has chosen to continue with CGM CNG for the conversion to a real electronic paperless and filmless hospital. Clinical and non-clinical staff has instant access to electronic patient records at KFMC, at the requested level of detail, independent of the location. All medical information and clinical information is stored within the patient's medical record within episodes.

CORTTEX® Integrated Hospital Management Information System



Physician's desktop – continuity of care

King Fahad Medical City has decided to implement CGM POERM to assure the overall continuity and consistency of care services within the healthcare enterprise via providing an intelligent process, information, and control flow predefined by the standards.

The collaborative effort with the continuous support and contribution from all levels at King Fahad Medical City created a successful implementation where displaying physician's tasks in an organised fashion expedites review of and access to daily tasks, notifies physicians for new results of patients, alerts physicians for critical results of patients that require immediate action, and supplies the organisation with calendars for each physician.

Physician order entry and results management

Most order entries (also known as computerized physician order entry – CPOE) products that are available today, target the management of medication and diagnostic test orders only. But for the optimal patient care, order entry should also support nursing and other healthcare staff in their daily clinical activities. In addition, order entry should be completed with results management to manage the results of the orders (including ordered diagnostic tests), which will also enable the system to track the status of orders completion.

POERM does not only enhance the clinical work of the healthcare staff, which is expected from a clinical workstation, but also manages the clinical care data to complete the patient's medical record.

The Point of Care

King Fahad Medical City has numerous benefits with the successful implementation of CGM CNG, and that applies to all parties using the system. The benefits are an increasing productivity and profitability by automating routine data collection, the elimination of paper trails, and a reduction of cycle times for data collection and treatment decisions at the point of care.

Nowadays, an advanced mobile application, which provides an increasing quality of care by providing point-of-care capability for the assigned end-users, is a necessity. iCNG is a mobile version of CORTTEX® Next Generation (CNG) and provides point-of-care capability of selected CNG modules/functionalities as a mobile application. iCNG is a new mobile application and has been developed as a native iOS software. iCNG provides the highest possible quality of clinical care in the most cost effective manner. Current and past medications, laboratory results, other reports, vital signs, and chosen follow-up parameters are distinctly presented without overlapping each other.

iCNG is empowered with a comprehensive EPR, which manages all patient-relevant medical information. Connected to any 3G or wireless internet connection, iCNG enables to send and receive all relevant patient information highly secure – everywhere in the hospital, and at any time.

Health information management systems require should be “mature systems proven and utilised by many hospitals worldwide” and “support workflow based technologies” to adapt the cycles of the health services processes, not only inside the healthcare institution, but also, and especially, between the institution(s).

Only the right solution, designed to answer KfMC's specific requirements and needs continuously, can lead an improved performance and real accomplishment. Only with such a solution, quantitative (cost reduction) and qualitative (service quality) improvements, and hence, a satisfactory level can be achieved. CORTTEX® Next Generation (CNG) provides a flexible environment that can be tailored in accordance with KfMC requirements and provide the basis for an intended real-time, online healthcare information management system to envision the access by all related parties within the healthcare process in the Kingdom of Saudi Arabia.

We strictly believe that with its numerous state-of-the-art live applications, CGM solutions shall not only fulfil the current and the future health information requirements, but also create the 'reference' information system model and become the most important and key component for the Kingdom of Saudi Arabia's eHealth environment, and shall serve hundreds of active parties and thousands of users throughout the country.



Thomas Reitmayr
Vice President Business Development
CompuGroup Medical CEE



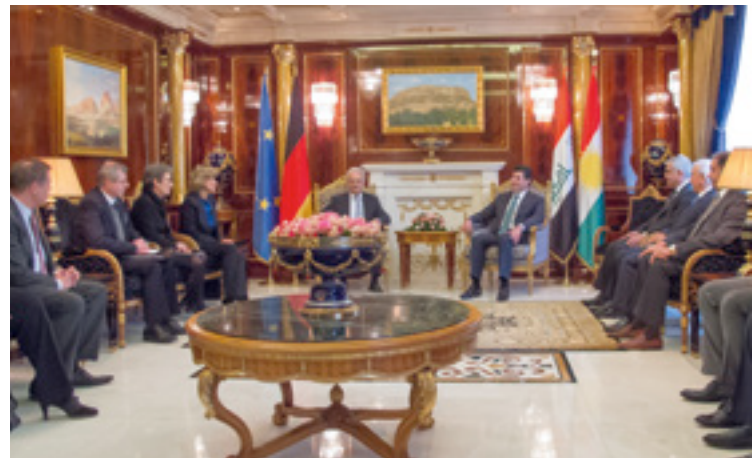
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General Manager CompuGroup Medical
CompuGroup Medical Turkey and
Middle East

Ghorfa Arab-German Chamber of Commerce and Industry

Germany-Sudan and South Sudan Business Day
under the auspices of the Federal Foreign Office, January 2013



Delegation visit to Iraq together with the Federal Minister Dr. Peter Ramsauer,
February 2013



Ghorfa Arab-German Chamber of Commerce and Industry

About us

The Ghorfa Arab-German Chamber of Commerce and Industry is the competence centre for business relations between Germany and the Arab world. It was founded in 1976 and since 1 August 2000, it is located in Berlin. The Board of Directors and the Executive Board equally consist of German and Arab members. This guarantees balance and mutual trust. Not only major German and Arab enterprises are among our members, numerous small and medium-sized enterprises complete our top-class network.

Our network

The Ghorfa operates under the umbrella of the General Union of Chambers of Commerce, Industry and Agriculture for Arab Countries and acts as the official representative of all Arab Chambers of Commerce and Industry in Germany. Our chamber works closely with the Arab embassies in Germany, the Arab League and related governmental bodies in the Arab states. It is part of the worldwide organisation of Arab foreign Chambers of Commerce and Industry. The Ghorfa cooperates with German governmental bodies on federal and regional level and the most important German industrial associations.

What we do

We actively promote and strengthen business relationships among our members and within the wider Arab and German business community. We pave the way for stronger business cooperation in the fields of trade, industry, finance and investment between Arab and German business partners. Strategic partnerships based on mutual benefit and understanding create new business opportunities to facilitate economic benefits for both sides. We therefore mainly focus on networking, communication and on providing information about relevant economic and industrial developments.



Building Bridges between Germany and the Arab World

Networking

- Quick access to decision-makers from industry and politics
- Organisation of delegation visits
- Organisation of events, conferences and further contact platforms (e.g. German-Arab Business, Energy, Tourism, Health, Education and Vocational Training, Forum)
- Ghorfa joint booths at major Arab and German trade fairs
- Promoting member services and products to a wider business community

Consulting

- Connecting with matching business partners
- General and business-related intercultural consulting
- Country and branch specific analysis
- Mediation and arbitration in cases of business disputes
- Advice and guidance through the multitude of offers and competing products on the German and Arab market
- Comprehensive and detailed market information about Germany and the 22 Arab states
- Visa support and legalisation services

Information

- Early information about projects and tenders
- Monthly issued Arabic and German newsletters
- Quarterly bilingual business magazine SOUQ
- Arab-German Business Directory providing over 6,000 yearly updated company profiles
- Arab-German Yearbooks that focus on industry-sector specific topics
- Information on the latest economic developments, markets and sectors, legal and political background

We welcome you to become part of the high-level network that we provide for professionals and business leaders from the Arab world and Germany. Join us and share our vision of prospering Arab-German business relations. For further information concerning membership in our chamber please contact us:

Ghorfa

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Meeting with H. H. Sheikh Sabah al-Ahmad al-Dschabir as-Sabah during the delegation visit to Kuwait, March 2013

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