Agenda
From 2015 to 2020 and beyond – a bold future for the industry?

2015 industry trends and challenges

- Searching for innovation and growth, including M&A/scale to prosper and R&D productivity
- Acclimatizing to a changing regulatory and risk environment, including transparency, security and privacy
- Preserving and building shareholder value, including pricing controls and access
- Preparing for the “next wave”, including transition to value-based market

2020 predictions – a bold future?
Meeting you today
Martin Faarborg - Deloitte Life Sciences Leader in Denmark

Profile

Martin joined Deloitte nearly 20 years ago. For more than 10 years, Martin has been Lead Client Service Partner and Lead Audit Partner for several large Danish and international corporations in life sciences, insurance, industrial packaging and oil & gas technology services industries.

He is currently serving the Lundbeck Foundation, H. Lundbeck, ALK Abelló, Bavarian Nordic and Zealand Pharma overseeing the audit and advisory services provided to these life sciences companies. Martin is also coordinating Deloitte’s global advisory services for these and other clients.

Martin is the head of Deloitte’s Market Group for Life Sciences in Denmark and thus a well-established global network in Deloitte.

His key competencies comprise risk management, compliance, funding and accounting legislation – including IAS/IFRS - and he is experienced in cooperating with Board of Directors, Executive Boards, Audit Committees, CFOs and Finance functions. He conducts training of Boards of Directors in accounting and auditing.

He also has extensive and recent practical experience leading audits of large international group’s with finance shared services centers in Europe.

Position
• Equity Partner in Deloitte Denmark

Life Sciences references
✓ H. Lundbeck
✓ The Lundbeck Foundation
✓ ALK Abelló
✓ Bavarian Nordic
✓ Zealand Pharma
✓ Ferring Pharmaceuticals
✓ TMJ

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2015 Global life sciences sector outlook
Adapting to an era of transformation
Sector overview today

Global health care spend to grow at **5.2%** annually to 2018

% of GDP spent on health care globally is expected to decrease from **10.6%** today to **10.3%** by 2018

Where’s the growth expected?

- **4.9%** North America
- **4.6%** Latin America
- **2.4%** Western Europe
- **8.1%** Asia
- **8.7%** Middle East and Africa
Sector overview today

Market size

**Pharma**

$1.23 trillion

**Med tech**

$364 billion

**Biotech**

$289 billion

Drivers

- Aging population
- Lengthening life expectancy
- Increase in chronic diseases
- Population growth
- Rising wealth
Current top issues

Searching for innovation and growth
Companies continue to look for opportunities to replenish pipelines, foster innovation, and collaboration across the health care value chain, and seek revenue growth.

Use of generics

Loss of revenue from patent expiry

R&D productivity has been in decline, but recent trends indicate a turnaround may be under way:

- NPV of sector’s R&D pipeline surging
- NME approvals rising
- Phase III approvals increasing (only bringing the most promising drugs to this stage)

- Restructuring R&D to focus on most promising areas
- Government investment from many countries in sector R&D efforts
- Specialty pharma could see growth surge

$700 billion
Current top issues

Acclimating to a changing regulatory and risk environment
Life sciences sector has a robust, complex and evolving regulatory landscape, driven by patient health, safety, and protection at its core, but is also adapting to different requirements and mandates throughout the world.

**Transparency** in product commercialization, executive pay, financial information accuracy, manufacturing processes, and clinical trial quality.

**Security and privacy**
Health care’s digitization and the proliferation of EMRs, networked medical devices, mHealth, cloud and data sharing among industry stakeholders increases complexity. Frequency and pace of cyber-attacks are increasing.

**Drug and device safety** — product safety standards are tightening set against a backdrop of heightened regulatory scrutiny and patient advocacy in areas such as social media and affiliate marketing programs.

**Intellectual property protection** — Continue to struggle to globally enforce intellectual property (IP) rights, particularly in some emerging markets.
Current top issues

Preserving and building shareholder value in an era of pricing pressures, generics competition, margin erosion, supply chain issues, and regulatory constraints, all of which can limit life sciences companies’ ability to grow revenues. On the cost side, rising R&D expenses, marketing and sales outlays, and general operating cost increases can exert pressure on gross margins.

Governments in both developed and emerging markets are minimizing pharmaceutical spending growth by enacting pricing and reimbursement legislation.

Generic drugs account for around 70% of the U.S. drug market by volume, but generics are feeling the pressure:

- Tighter price controls and other sales constraints are impacting
- Downstream effects of slowing patent expiries
- Increased global competition

Supply chain — Learning how to understand and control supply chain operations at “arm’s length” is an inherent challenge for life sciences companies doing business in the global marketplace.

Counterfeit drugs are a $35-$40 billion-a-year global business.
Current top issues

Preparing for the ‘next wave’ — Life sciences companies will need to develop capabilities to provide real-world evidence of positive patient outcomes, potential products, manufacturing capabilities, value-based pricing and contracting, reimbursement, market access, and marketing.

New stakeholders, new conversations
The changing roles and influence of stakeholders along the care continuum call for a more cross-functional, collaborative customer model that effectively targets all critical decision-makers.

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Personalized medicine
The alignment of science, education, research, informatics, and training is enabling a more personalized approach to life sciences product development and, in the process, transforming the future of health care decision-making and delivery.

Technology-enabled health care
Technology innovation to health care delivery (wearables, sensors, digital medicine, and novel drug delivery systems) can help to drive down costs and improve treatment regimens.

The ‘next’ emerging markets
As growth in developed markets slows, life sciences companies are expected to continue expanding their presence in emerging markets through acquisitions and joint ventures.

Talent
Life sciences companies are competing globally for increasingly scarce technical and professional skills. A recent survey showed that 75 percent of respondents rated workforce capability as “urgent” or “important”, however, only 15 percent believe they are ready to address it.
Healthcare and Life Sciences Predictions 2020
A bold future?
Research aims
To be entirely different from our traditional research

In response to client executive teams that often ask:

“Do you have a paper setting out the challenges of our future market place? We have a strategy working session next month and need some insights, challenge and a little provocation”

- We aim to use this report to create a rich dialogue with our clients to help them understand how best to respond to the changing and increasingly challenging Healthcare and Life Sciences industry.

- Our work draws on primary and desk research but also our experience and observations of trends, events and on identifying small but bold steps that – if accelerated through to the year 2020 and beyond – paint a picture of a world that is very different from today.

- We describe the big trends occurring today rolled forward to 2020 and the constraints that will need to be overcome and examples and evidence based on the here and now.

- We’ve been deliberately challenging albeit very positive about this future world.
What we know today and estimate about tomorrow

Our industry is changing quickly – requiring a bold response that is often difficult to implement

Meet the Over 65s – by 2018 they will number some 580 million – **10% of the global population** – or one in every:

- 4 Japanese
- 5 Western Europeans
- 10 Chinese

Total global pharmaceutical spending is expected to increase by **6.9%** a year from **USD 1.23 trillion in 2014** to **USD 1.61 trillion in 2018**. Oncology is expected to remain the main contributor among therapeutic areas.

Growth in average annual healthcare spending 2014 - 2018 is expected to range from **2.4%** in Western Europe to **4.9%** in North America; and from **8.1%** in Asia and Australia to **8.7%** in the Middle East and Africa.

Developed markets remain the main spenders on healthcare – **77% of global spend** in 2014. Developing market are forecast to increase their share from **23%** in 2014 to **32%** by 2020.

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2. 2015 Global Life Sciences Sector Outlook, Deloitte DTTL, 2014
3. Informa Pic Market Line Extracted 181014
Healthcare and Life Sciences Predictions 2020
Dashboard of ten provocative statements

The 2020 world

1. Health consumers
2. Health systems
3. Wearables & mHealth
4. Big data
5. Regulation
6. R&D
7. Commercial model
8. Back office
9. Emerging markets
10. Corporate reputation

Navigating the dashboard
Where hyperlinks are possible to use you will find the icon: Return to the dashboard by using:
Health consumers in 2020
Informed and demanding patients are now partners in their own healthcare

2020 prediction

• Individuals are better informed about their genetic profile, their health status and risks
• Informed consumers demand specific treatments and the best services
• Fully engaged with the ‘quantified self’ & prevention agenda

Today’s evidence

• 52% of US citizens surveyed in 2013 were comfortable consulting with a doctor or other health professional through a video connection
• US Retail outlets are becoming serious primary care providers by expanding their services in response to consumer demand
Healthcare delivery systems in 2020
The era of digitised medicine - new ideas drive new models

2020 prediction

• The home is where much of the standard medical care takes place
• Specialist hospital treatment is reserved for trauma and emergency surgery
• Many doctor–patient contacts are now virtual and informed with real world evidence

Today’s evidence

• [Patients Knows Best](#) ‘cloud based’ platform
• Since 2008 [Kaiser Permanente Northern California](#) has operated an inpatient and ambulatory care electronic health record system. The number of virtual “visits” has grown from 4.1 million in 2008 to 10.5 million in 2013

The future of health care. It’s in your hands
Click here for video 🎥
Wearables and mHealth applications in 2020
Measuring quality of life not just clinical indicators

**2020 prediction**

- Wearables shape the quality of life of the 2020 consumer.
  - Provide a comprehensive view of health as well as fitness
  - New physician / patient partnership is formed

**Today’s evidence**

- Venture funding of biosensors and wearable technology increased five times from 2011-2013 (to $283 million)
- mHealth market revenue reached USD 2.4bn in 2013 and is projected to grow to USD 26bn by the end of 2017
Big Data in 2020
Health data is pervasive – requiring new tools and provider models

2020 prediction

• Healthcare data:
  – has become a national infrastructure priority attracting significant funding
  – has transformed diagnosis and personalised treatment
  – is improving outcomes and productivity across healthcare and life sciences

Today’s evidence

• It took at least one week to sequence a genome in 2011, now it takes only about a day

• In December 2013 The U.S. Preventive Services Task Force recommended that women who have one or more family members with a known potentially harmful mutation in the BRCA1 or BRCA2 genes should be offered genetic counselling and testing
Regulatory compliance and patient safety in 2020
Regulations reflect the convergence of technology and science

2020 prediction

• Pre-eminent regulatory agencies have adapted to new realities shaped by technology
• Approach to regulation is far more data driven
• New regulations now encourage innovation for example through faster approval processes

Today’s evidence

• Formation of ‘Patient powered research networks’: participants systematically un-blind themselves, pool their data, review and discuss literature, conduct statistical analyses online etc.
• The fiscal year 2015 Budget Request for the FDA is $4.74 billion, which is $358 million above the FY 2014 Enacted level
Research and Development in 2020

The networked laboratory - partnerships and big data amidst new scrutiny

2020 prediction

- R&D is built around partnerships with academia and other, traditional & non-traditional stakeholders
- Activities are widely distributed, with pharmaceutical companies at the centre
- The focus is on understanding disease biology and genetics; current standards and cost of care; and treatment pathways

Today’s evidence

- In US two thirds (433) of drugs launched between 2000 and 2013 were a partnership between companies, one third (268) went alone
- New models of R&D: Eye wire online game – crowd sourced mapping of retinal neurons for research purposes
The pharmaceutical commercial model in 2020
Local is important but with a shift from volume to value

2020 prediction

- Sales reps replaced by medical educators and orchestrators of clinician dialogues
- Pharmaceutical companies are routinely integrated in clinical service delivery models
- Tailored therapy area strategies are lead by market access first and sales and marketing second

Today’s evidence

- A 2014 US survey found that 42% of doctors affiliated with integrated health networks say they are not allowed to see sales reps - a 17% increase since last year
- In the 12 months to March 2012, the US recorded a fall in pharmaceutical sales rep numbers of 8 percent to 72,000 (below China numbers)
The pharmaceutical enterprise configuration – the back office in 2020

Single, global organisation responsible for insight enablement

2020 prediction

- Global Business Services delivery model - back office (finance/HR/procurement and IT) becomes information engine enabling insight across the value chain
- End to end process governance across network of shared service centres comprising rich technology and analytics capabilities
- Back office is nerve centre of business playing central role in driving cost and resource allocation

Today’s evidence

- Three large European pharmaceutical companies are together moving more than 200,000 employees around the world to new virtual HR solutions - by end 2015
- Overall for one of the largest Pharma companies, some 16,000 sales reps are now working in the cloud
- Some 9/25 of the largest Pharma companies have or are in process of adopting the GBS delivery model
New business models in emerging markets in 2020
Still emerging, but full of creativity for the world

2020 prediction

• Traditional pharmaceutical markets in the US and Western Europe remain the main markets for drug companies
• New emerging markets e.g. Indonesia and Africa are incubating new models of business and healthcare delivery, and are leading in the development of new drugs

Today’s evidence

• The Aravind hospital in South India is the largest and most productive eye care facility in the world, it provides 60 percent of the UK’s volume of cataract operations at 1 percent of the cost
• Brazilian government has engaged with pharma companies in product development. The public-private partnership so far has supported 103 products
Impact of behaviours on corporate reputation in 2020
A new dawn of trust

2020 prediction

• Real inroads have been made in repairing the negative corporate reputation that has plagued the industry – transparency is key along with an inclusive approach

• Corporate reputation is inextricably linked to relationships with patient groups and a transparency agenda

Today’s evidence

• Having a fair and transparent pricing policy was seen as critical to the relationship with patients

• In 2011, only 31% of patient groups indicated that pharma is excellent or good at acting with integrity. In 2014 this had declined to 25%

• Only 26% were seen as having good ethical marketing practices (31% in 2011)
What could Real World Evidence (RWE) data be in 2025?
RWE drives personalised medicine for specific patient outcomes paid for by payers

- DNA profiled patient record and biomarkers
- Diagnostic machines / software diagnose (e.g. Watson computer)
- Physicians focused on care & non-standard cases
- Personalised care and treatment
- Payers reward individual and patient population outcomes
- R&D more productive - better patient selection and virtual trials
Compliance Risk Organisations in Life Sciences in 2025

Non-compliance can impact license to operate
Insights and thought leadership

The Deloitte Center for Health Solutions:

- Based in Washington, D.C. (US) and London (UK)
- Generates insights and thought leadership based on the key trends, challenges and opportunities within the healthcare and life sciences industry
- Develops ideas, innovations and insights that encourage collaboration across the health value chain, connecting the public and private sectors; health providers and purchasers; and consumers and suppliers

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