Manato Ohara, diagnosed with type 1 diabetes
Kanagawa, Japan

novo nordisk – a focused healthcare company

Investor presentation
First nine months of 2017

novo nordisk

Agenda

- Highlights and key events
- Sales update
- R&D update
- Financials and outlook

Forward-looking statements

Novo Nordisk's reports filed with or furnished to the US Securities and Exchange Commission (SEC), including the company's Annual Report 2016 and Form 20-F, which are both filed with the SEC in February 2017 in continuation of the publication of the Annual Report 2016, and written information released, or oral statements made, to the public in the future by or on behalf of Novo Nordisk, may contain forward-looking statements. Words such as 'believe', 'expect', 'may', 'will', 'plan', 'strategy', 'prospect', 'foresee', 'estimate', 'project', 'anticipate', 'can', 'intend', 'target' and other words and terms of similar meaning in connection with any discussion of future operating or financial performance identify forward-looking statements. Examples of such forward-looking statements include, but are not limited to:

- Statements of targets, plans, objectives or goals for future operations, including those related to Novo Nordisk's products, product research, product development, product introductions and product approvals as well as cooperation in relation thereto
- Statements containing projections of or targets for revenues, costs, income (or loss), earnings per share, capital expenditures, dividends, capital structure, net financials and other financial measures
- Statements regarding future economic performance, future actions and outcome of contingencies such as legal proceedings, and
- Statements regarding the assumptions underlying or relating to such statements.

These statements are based on current plans, estimates and projections. By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific. Novo Nordisk cautions that a number of important factors, including those described in this presentation, could cause actual results to differ materially from those contemplated in any forward-looking statements.

Factors that may affect future results include, but are not limited to, global as well as local political and economic conditions, including interest rate and currency exchange rate fluctuations, delay or failure of projects related to research and/or development, unplanned loss of patents, interruptions of supplies and production, product recall, unexpected contract breaches or terminations, government-mandated or market-driven price decreases for Novo Nordisk's products, introduction of competing products, reliance on information technology, Novo Nordisk's ability to successfully market current and new products, exposure to product liability and legal proceedings and investigations, changes in governmental laws and related interpretation thereof, including on reimbursement, intellectual property protection and regulatory controls on testing, approval, manufacturing and marketing, perceived or actual failure to adhere to ethical marketing practices, investments in and divestitures of domestic and foreign companies, unexpected growth in costs and expenses, failure to recruit and retain the right employees, and failure to maintain a culture of compliance.

Please also refer to the overview of risk factors in 'Risk Management' on pp 40-43 of the Annual Report 2016.

Unless required by law, Novo Nordisk is under no duty and undertakes no obligation to update or revise any forward-looking statement after the distribution of this presentation, whether as a result of new information, future events or otherwise.

Important drug information

- Victoza® (liraglutide 1.2 mg & 1.8 mg) is approved for the management of type 2 diabetes only
- Saxenda® (liraglutide 3 mg) is approved in the US and EU for the treatment of obesity only

Highlights – First nine months of 2017

Sales development
- Sales increased by 2% in Danish kroner and 3% in local currencies
  - International Operations grew by 5% and accounted for 97% share of growth in local currencies
  - North America Operations sales were broadly unchanged and accounted for 3% share of growth in local currencies
  - Tresiba® and Victoza® accounted for the largest share of growth and grew by 118% and 15% in local currencies, respectively

Research and Development
- Semaglutide demonstrated superiority to dulaglutide in the SUSTAIN 7 trial on both glucose control and weight loss
- Semaglutide received a positive 16-0 vote in favour of approval from an FDA Advisory Committee
- Victoza® approved in the US as the only GLP-1 with a label to include prevention of cardiovascular events
- Tresiba® label update approved in the EU – new label reflects significant reduction in the risk of severe hypoglycaemia

Financials
- Operating profit increased by 5% in Danish kroner and 6% in local currencies
- Diluted earnings per share increased by 5% to 12.03 DKK per share
- 2017 financial outlook:
  - Sales growth is now expected to be 2-3% measured in local currencies (now around 2% lower reported)
  - Operating profit growth is now expected to be 3-6% measured in local currencies (now around 3% lower reported)
- 2018 preliminary financial outlook:
  - Sales and operating profit growth in local currencies are expected to be low to mid single digit (around 3% and 4% lower reported, respectively)

Executive management as of 1 October 2017

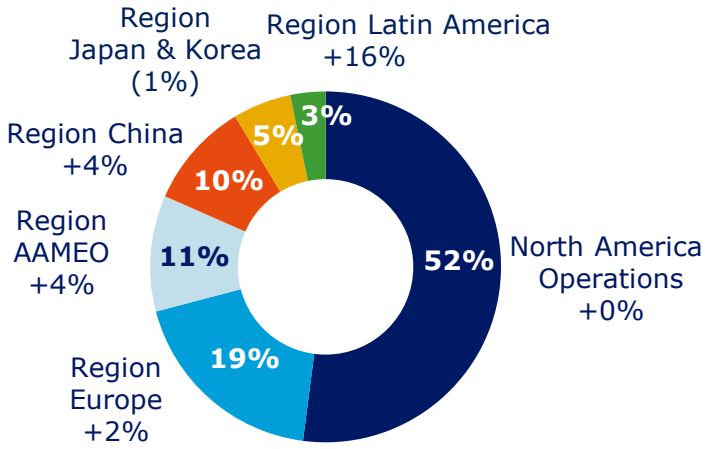
President & CEO
Lars Fruergaard Jørgensen

Research & Development	Product Supply	Commercial Strategy & Corporate Affairs	North America Operations	International Operations	Finance, Legal & Investor Relations	Business Services & Compliance
						
Mads Krogsgaard Thomsen	Henrik Wulff	Camilla Sylvest	Doug Langa[1]	Maziar Mike Doustdar[1]	Jesper Brandgaard	Lars Green

[1] Not registered with the Danish Business Authority

Sales growth driven by International Operations with all regions contributing to growth

Sales as reported – First nine months of 2017



Sales of DKK 83.7 billion (+2%)

Growth analysis – First nine months of 2017

Local currencies	Growth	Share of growth
North America Operations	**0%**	**3%**
Hereof USA	0%	(1%)
International Operations	**5%**	**97%**
Region Europe	4%	26%
Region AAMEO	6%	25%
Region China	6%	24%
Region Japan & Korea	2%	4%
Region Latin America	17%	18%
Total sales	**3%**	**100%**

AAMEO: Africa, Asia, Middle East & Oceania

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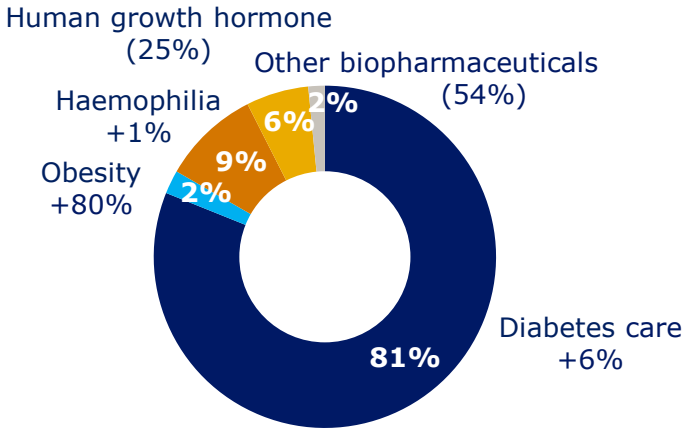
Sales growth derived from diabetes and obesity care, driven by Tresiba®, Victoza® and Saxenda®

Sales as reported – First nine months of 2017



Sales of DKK 83.7 billion (+2%)

Growth analysis – First nine months of 2017

Local currencies	Growth	Share of growth
New-generation insulin[1]	129%	165%
Modern insulin	(3%)	(41%)
Human insulin	(5%)	(19%)
Victoza®	15%	103%
Other diabetes care[2]	(3%)	(4%)
Total diabetes care	**7%**	**204%**
Obesity (Saxenda®)	77%	37%
Diabetes and obesity care total	**8%**	**241%**
Haemophilia[3]	1%	5%
Human growth hormone products	(24%)	(73%)
Other biopharmaceuticals[4]	(54%)	(73%)
Biopharmaceuticals	**(18%)**	**(141%)**
Total	**3%**	**100%**

[1] Comprises Tresiba®, Xultophy®, Ryzodeg® and Fiasp®
[2] Primarily NovoNorm® and needles
[3] Comprises NovoSeven®, NovoEight® and NovoThirteen®
[4] Primarily Vagifem® and Activelle®

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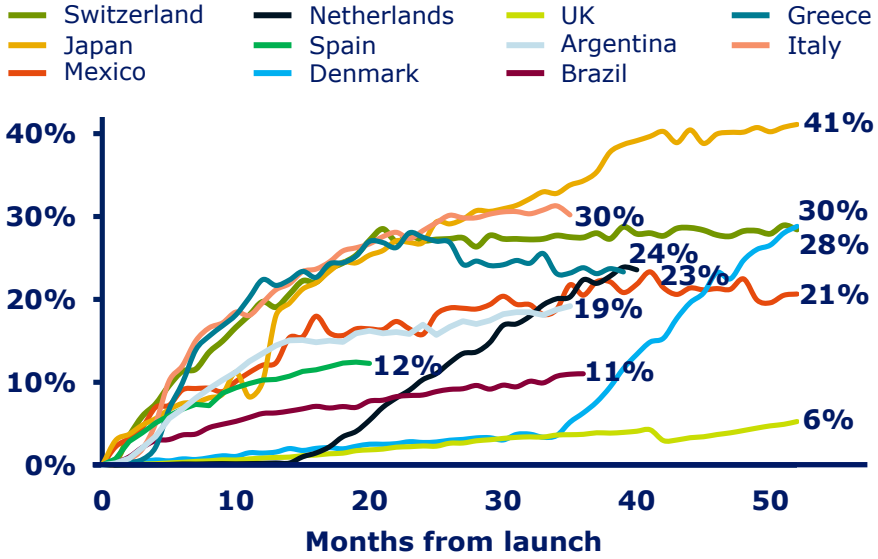
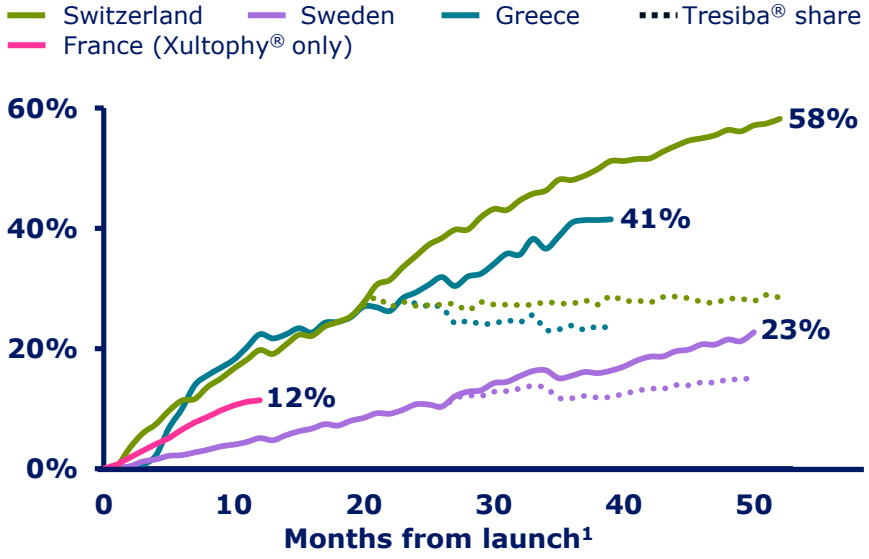
Basal insulin market penetration with Tresiba® supported by Xultophy® launches

Tresiba® value market share of basal insulin segment in selected countries outside the US



Note: Limited IMS coverage in India
Source: IMS Monthly value figures, Aug 2017

Combined value market share of Tresiba® and Xultophy® in selected countries



Source: IMS Monthly value figures, Aug 2017
[1] Switzerland, Sweden and Greece: Months from Tresiba® launch. France: Months from Xultophy® launch (Tresiba® is not launched in France).

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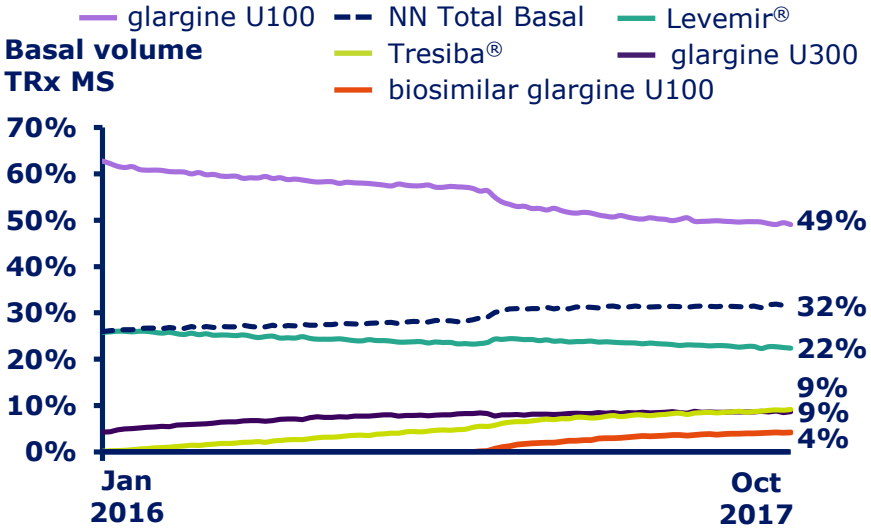
Total Novo Nordisk basal insulin volume market share in the US of 32%

Weekly TRx volume market shares in the US



Note: The graph does not show NPH, which accounts for the residual market share
Source: IMS weekly Xponent Plantrak (excludes Medicaid), 13 Oct 2017
TRx volume: Insulin volume in mega units (MU) associated with total number of prescriptions;
MS: Market share

Tresiba® launch in the US

- Tresiba® New-to-Brand Prescriptions market share of around 12%
- Tresiba® TRx volume market share is now 9.2% and Novo Nordisk aims to reach a TRx volume market share of around 10% by the end of 2017
- Tresiba® formulary access expected to remain largely unchanged at around 70% for commercial and Medicare Part D combined in 2018
- Recently announced Part D changes to the formulary access for competing basal insulins provide opportunity for Tresiba® to grow volume market share in 2018

Source: IMS weekly Xponent Plantrak (excludes Medicaid), 13 Oct 2017

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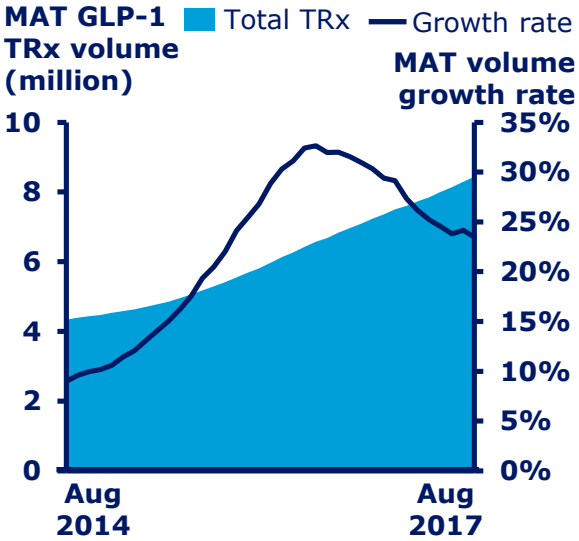
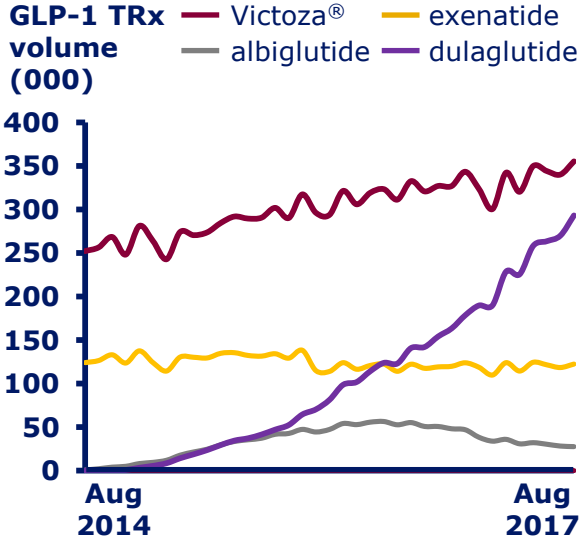
Victoza® continues strong growth trajectory in the US driven by GLP-1 market volume growth of 24%

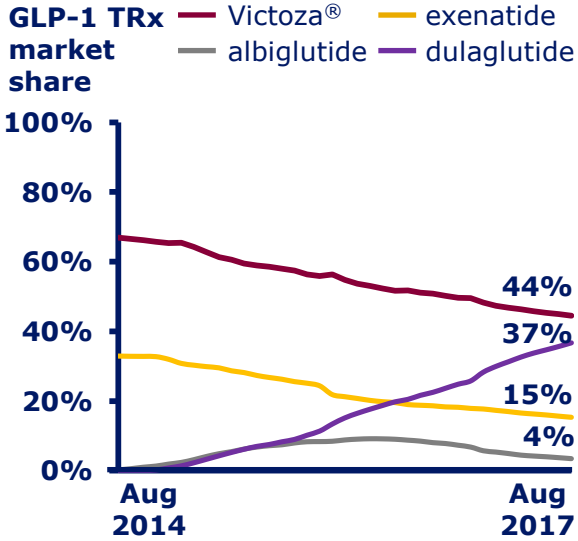
US GLP-1 market development



US GLP-1 market monthly TRx



US GLP-1 volume market share



Source: IMS NPA monthly, Aug 2017

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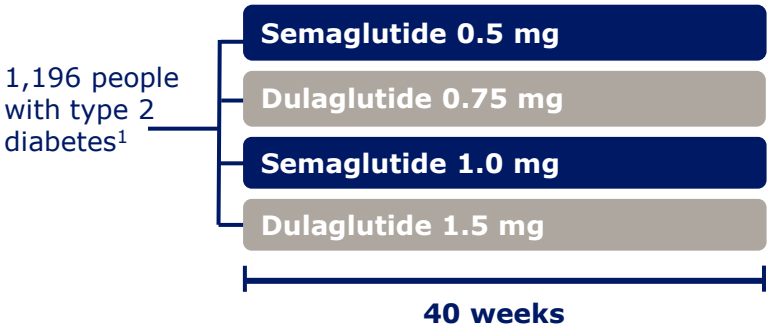
Semaglutide demonstrates superiority to dulaglutide in SUSTAIN 7 trial on both glucose control and weight loss

SUSTAIN 7 trial design



[1] Inclusion criteria: Male or female, age ≥18 yrs, stable treatment with metformin, HbA1c 7.0 – 10.5%
Note: The study includes comparison of high dose semaglutide with high dose dulaglutide and low dose semaglutide with low dose dulaglutide

Key results and next steps

	Sema 0.5 mg	Dula 0.75 mg	Sema 1.0 mg	Dula 1.5 mg
HbA_{1c} reduction	1.5%*	1.1%	1.8%*	1.4%
HbA_{1c} ≤7%	68%	52%	79%	67%
HbA_{1c} ≤6.5%	49%	34%	67%	47%
Weight loss	4.6 kg*	2.3 kg	6.5 kg*	3.0 kg
Weight loss ≥5%	44%	23%	63%	30%

Next steps:

- Regulatory feedback expected in both the US and the EU in Q4 2017

*Statistically significant greater reduction than dulaglutide
Sema: Semaglutide; Dula: Dulaglutide

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Recent regulatory approvals obtained for Victoza®, Fiasp® and Tresiba®

Victoza® CV indication approved in the US

✓ Victoza® the only type 2 diabetes treatment indicated to reduce MACE

Updated Victoza® label:

- 13% reduction of the risk of major adverse cardiovascular events vs placebo
- 22% reduction in cardiovascular death vs placebo

Fiasp® approved in the US

✓ New fast-acting mealtime insulin Fiasp® approved in the US

Next steps:

- Launch of Fiasp® in the US expected in Q4 2017

Tresiba® hypoglycaemia label updated in the EU

✓ Tresiba® label update in the EU to include significant reduction in the risk of severe hypoglycaemia

Updated Tresiba® label:

- 40% reduction of severe hypoglycaemia vs glargine U100
- 53% reduction of nocturnal severe hypoglycaemia vs glargine U100

CV: Cardiovascular; MACE: Major adverse cardiovascular events

Other key development milestones

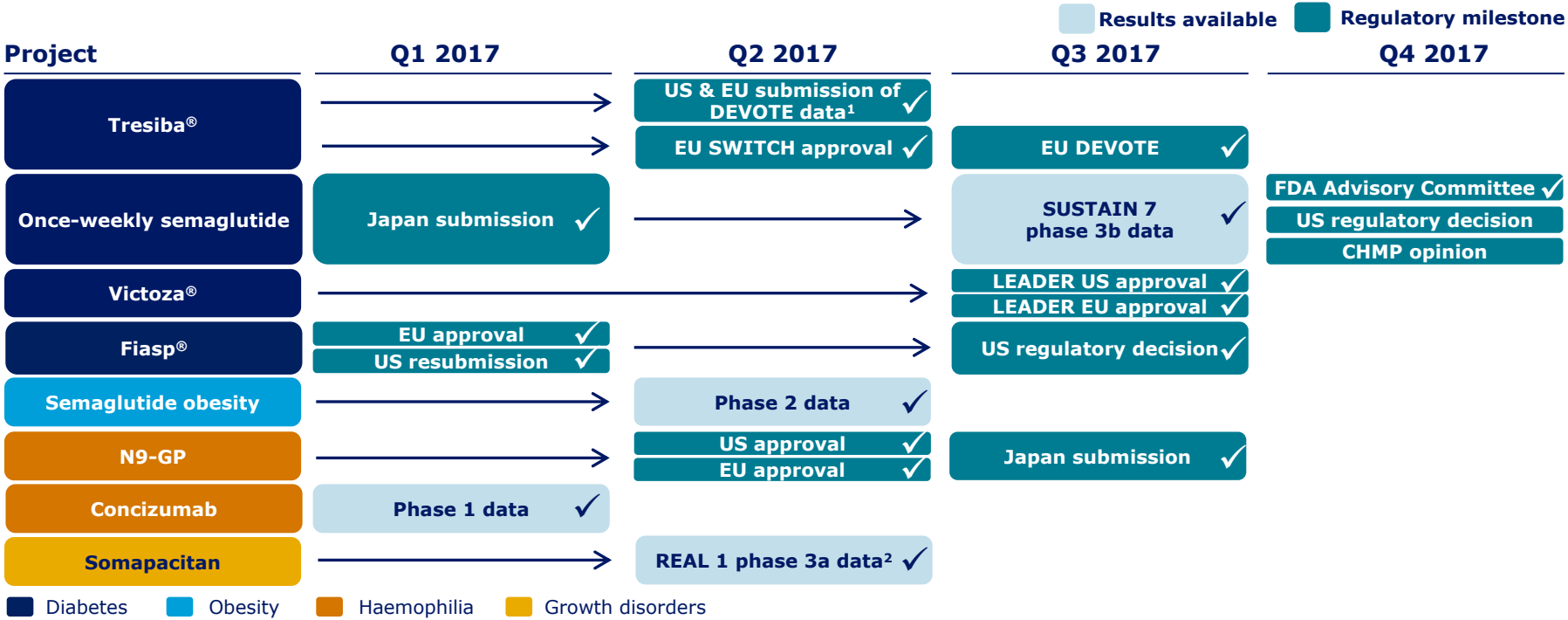
Semaglutide received positive 16-0 vote in favour of approval from an FDA Advisory Committee

Main phase of the phase 3a trial with NovoEight® in paediatric previously untreated patients with haemophilia A completed

Concizumab phase 2 trials initiated in patients with Haemophilia A and patients with Haemophilia A and B patients with inhibitors

FDA: Food and Drug Administration

Significant regulatory news flow in 2017

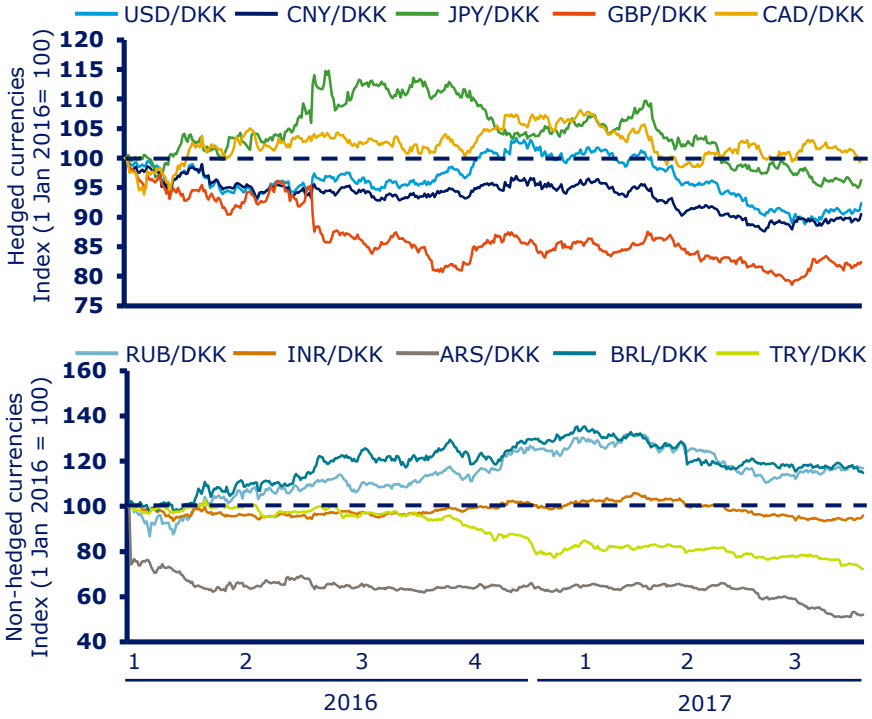


[1] It is Novo Nordisk's assessment that FDA plans to review the SWITCH studies in the context of the data from the recently submitted DEVOTE trial. Feedback expected by the end of Q1 2018.
[2] Study conducted in adult growth hormone disorder
CHMP: Committee for Medicinal Products for Human Use in the EU

Financial results – first nine months 2017

DKK million	9M 2017	9M 2016	Change (reported DKK)	Change (local currency)
Sales	83,704	82,208	2%	3%
Gross profit	70,772	69,943	1%	2%
Gross margin	*84.6%*	*85.1%*		
Sales and distribution costs	20,045	20,468	(2%)	(1%)
Percentage of sales	*23.9%*	*24.9%*		
Research and development costs	10,031	10,093	(1%)	0%
Percentage of sales	*12.0%*	*12.3%*		
Administration costs	2,666	2,796	(5%)	(4%)
Percentage of sales	*3.2%*	*3.4%*		
Other operating income, net	890	640	39%	41%
Operating profit	38,920	37,226	5%	6%
Operating margin	*46.5%*	*45.3%*		
Financial items (net)	(811)	(370)		
Profit before income tax	38,109	36,856	3%	
Income taxes	8,232	7,630	8%	
Effective tax rate	*21.6%*	*20.7%*		
Net profit	29,877	29,226	2%	
Diluted earnings per share (DKK)	12.03	11.50	5%	

Currency impact in 2017 driven by development in both hedged and unhedged currencies



Hedged Currencies	2016 average	2017 average[2]	Spot rate[2]	Impact of a 5% move[3]	Hedging (months)
USD[1]	667	666	641	1,900	12
CNY[1]	100	98.0	96.4	305	6[4]
JPY[1]	6.5	5.9	5.6	185	12
GBP[1]	876	851	839	85	12
CAD[1]	511	508	498	80	11

Non-hedged Currencies	2016 average	2017 average[2]	Spot rate[2]
ARS[1]	0.4	0.4	0.4
TRY[1]	224.9	184.6	167.6
INR[1]	10.0	10.2	9.9
RUB[1]	10.3	11.4	11.0
BRL[1]	205.5	209.8	194.6

[1] DKK per 100; [2] As of 27 October 2017; [3] Impact on operating profit in the next 12 months of a 5% immediate currency move. DKK million per annum; [4] Chinese Yuan traded offshore (CNH)
Note: Operating profit impact of one of the non-hedged currencies appreciating 5% is in the range of DKK -15 to +40 million

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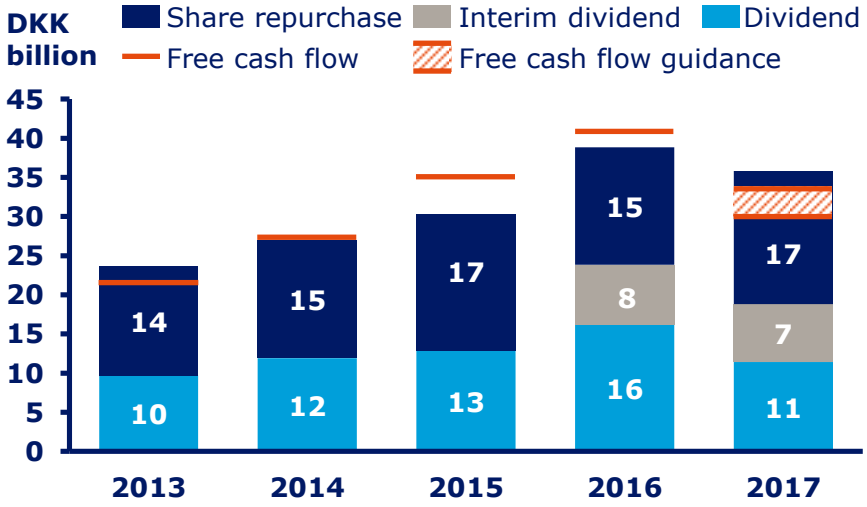
Financial outlook for 2017

	Expectations 1 November 2017	Previous expectations 9 August 2017
Sales growth - local currencies	**2% to 3%**	1% to 3%
Sales growth - reported	**Around 2 percentage points lower**	Around 3 percentage points lower
Operating profit growth - local currencies	**3% to 6%**	1% to 5%
Operating profit growth - reported	**Around 3 percentage points lower**	Around 4 percentage points lower
Financial items (net)	**Loss of around DKK 0.3 billion**	Loss of around DKK 0.2 billion
Effective tax rate	21-22%	21-22%
Capital expenditure	**Around DKK 9 billion**	Around DKK 9.5 billion
Depreciation, amortisation and impairment losses	**Around DKK 3.5 billion**	Around DKK 3 billion
Free cash flow	**Around DKK 30-34 billion**	Around DKK 29-33 billion

The financial outlook is based on an assumption of a continuation of the current business environment and given the current scope of business activities and has been prepared assuming that currency exchange rates remain at the level as of 27 October 2017

The share repurchase programme for 2017 expanded due to the increased expectations for cash flow generation

Annual cash return to shareholders



Cash return priorities

- The total 2017 share repurchase programme has been expanded based on the increased expectations for cash flow generation in 2017 with DKK 1.0 billion to DKK 17 billion
- Dividend to match pharma peer-group
- Dividend distributed twice a year as interim in August and final in connection with the Annual General Meeting in March the following year
- Share repurchase to at least correspond to remaining cash flow

Note: Interim dividend for 2017 of DKK 3.00 per share of DKK 0.20 was paid in August 2017. For 2017 expected free cash flow is DKK 30-34 billion. Share repurchase programmes run for 12 months starting February until end January of the following year.

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Closing remarks

Solid leadership positions and continued market opportunities

27%	Novo Nordisk value market share in diabetes care and solid leadership position
~4%	insulin market volume growth
45%	Novo Nordisk insulin volume market share with leadership position across all regions
>20%	GLP-1 volume market growth
51%	Novo Nordisk GLP-1 volume market share with global leadership position
23	countries successfully launched Saxenda®

Promising pipeline and product launches

- The only company with a full portfolio of novel insulin and GLP-1 products
- Semaglutide portfolio offers expansion opportunity with both injectable and oral administration
- Xultophy® supports promising outlook for insulin and GLP-1 combination therapy
- Saxenda® and multiple clinical stage development projects hold potential within obesity
- Broad pipeline within haemophilia

Source: IMS MAT Aug 2017 volume and value (DKK) figures

Investor contact information

Share information

Novo Nordisk's B shares are listed on the stock exchange in Copenhagen under the symbol 'NOVO B'. Its ADRs are listed on the New York Stock Exchange under the symbol 'NVO'. For further company information, visit Novo Nordisk on the internet at: novonordisk.com

Upcoming events

21 Nov 2017	Capital Markets Day
01 Feb 2018	Financial statement for 2017
22 Mar 2018	Annual General Meeting
02 May 2018	Financial statement for the first three months of 2018
08 Aug 2018	Financial statement for the first six months of 2018
01 Nov 2018	Financial statement for the first nine months of 2018

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Appendix

1. Novo Nordisk at a glance
2. Diabetes and obesity
3. Biopharmaceuticals
4. Financials
5. Sustainability

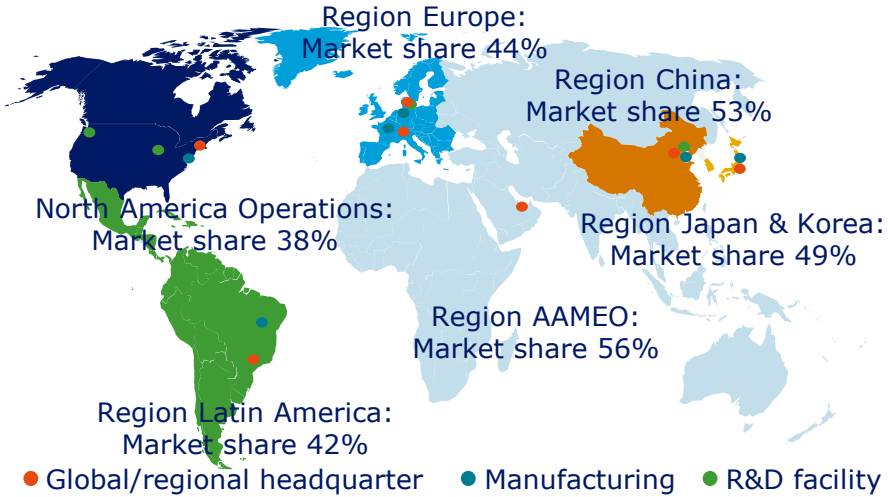
Novo Nordisk at a glance

Global leader in diabetes care

- A focused pharmaceutical company with leading positions in diabetes, haemophilia and growth hormone
- Significant growth opportunities driven by the diabetes pandemic, fuelled by global presence and strong research and development pipeline
- High barriers to entry in biologics
- Operating profit growth targeting 5% yearly on average
- Earnings conversion to cash targeting 90%
- Cash generated returned to shareholders

Global insulin market leadership

Global insulin market share: 46%



Source: IMS MAT Aug 2017 volume figures
AAMEO: Africa, Asia, Middle East & Oceania

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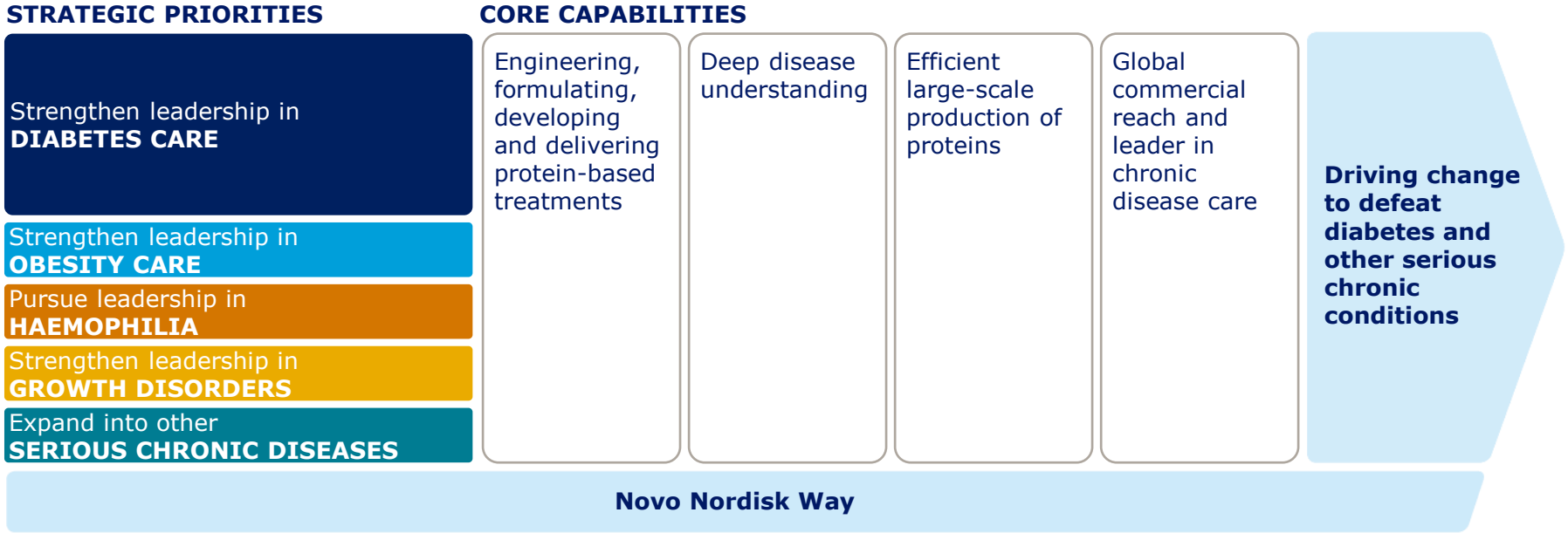
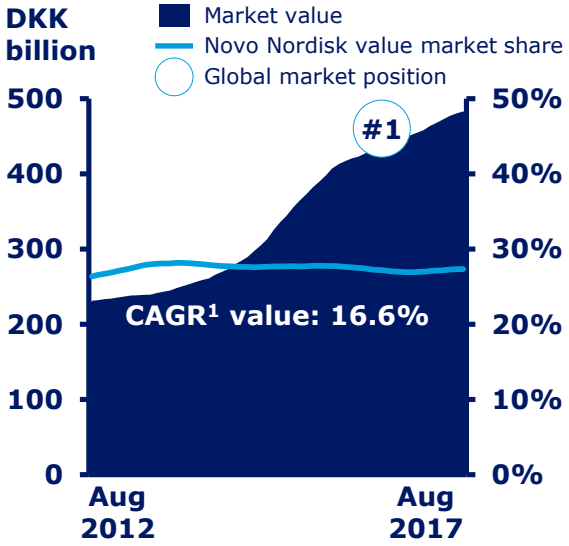
Novo Nordisk strategic foundation



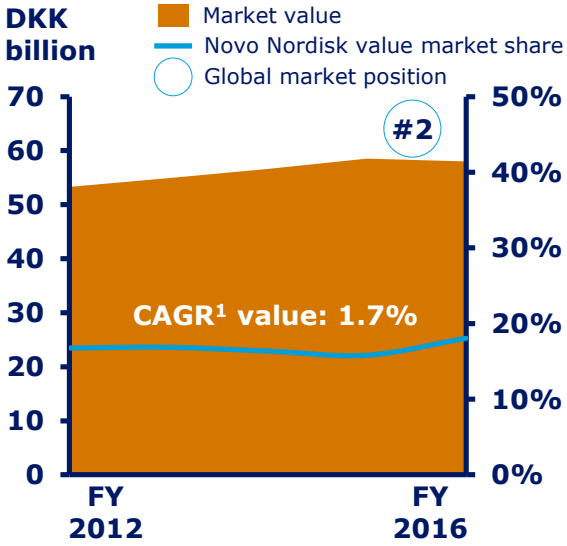
Novo Nordisk has leading positions in diabetes, haemophilia and growth disorders

Diabetes



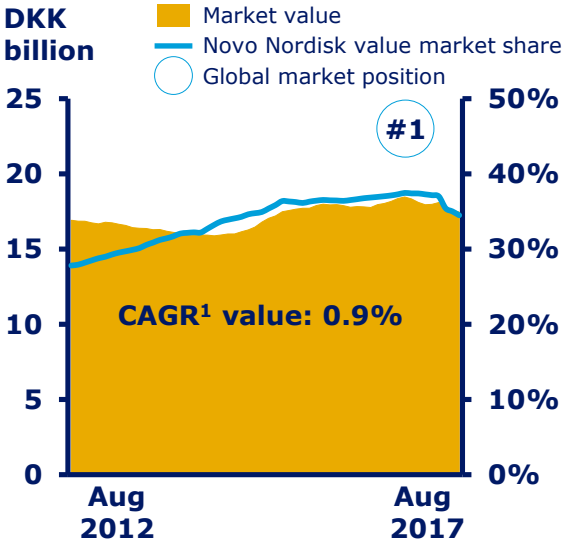
[1] CAGR for 5-year period
Source: IMS MAT Aug, 2017 value figures

Haemophilia



Note: Annual sales figures for Haemophilia A, B and inhibitor segment
[1] CAGR for 5-year period
Source: Company reports

Growth disorders



[1] CAGR for 5-year period
Source: IMS MAT Aug, 2017 value figures

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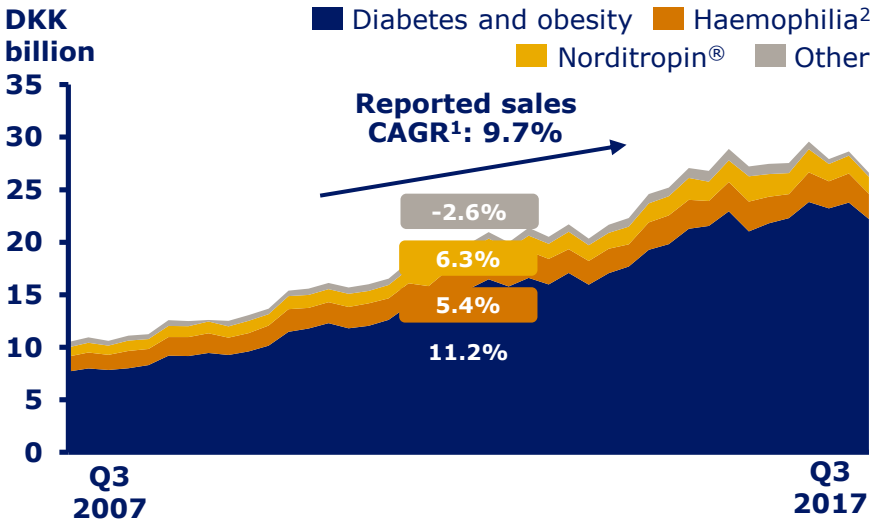
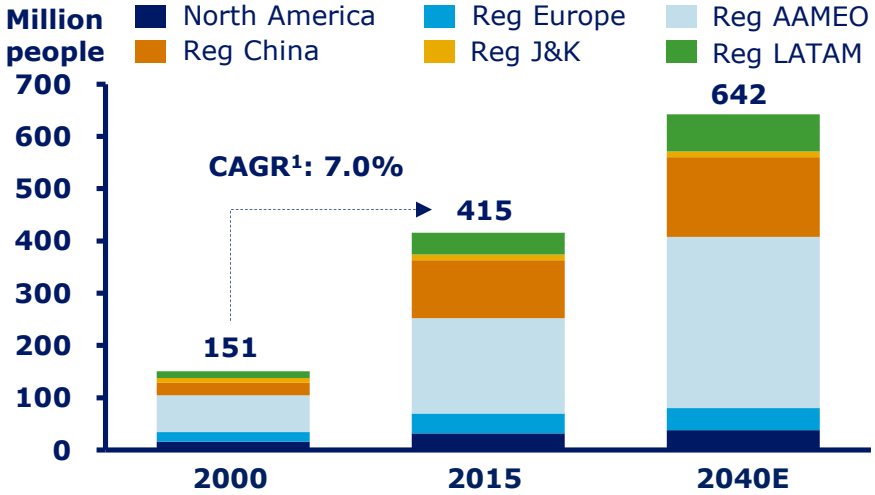
Top line growth driven by the diabetes pandemic

Novo Nordisk reported quarterly sales by therapy



[1] CAGR for 10-year period
[2] Haemophilia includes NovoSeven®, NovoThirteen® (as of Q1 2013) and NovoEight® (as of Q1 2014)

International Diabetes Federation projects that 642 million people will have diabetes by 2040



Reg: Region; J&K: Japan & Korea; AAMEO: Africa, Asia, Middle-East and Oceania; LATAM: Latin America
Note: 20-79 age group
[1] CAGR for 15-year period
Source: International Diabetes Federation: Diabetes Atlas 1st and 7th Edition, 2000 and 2015

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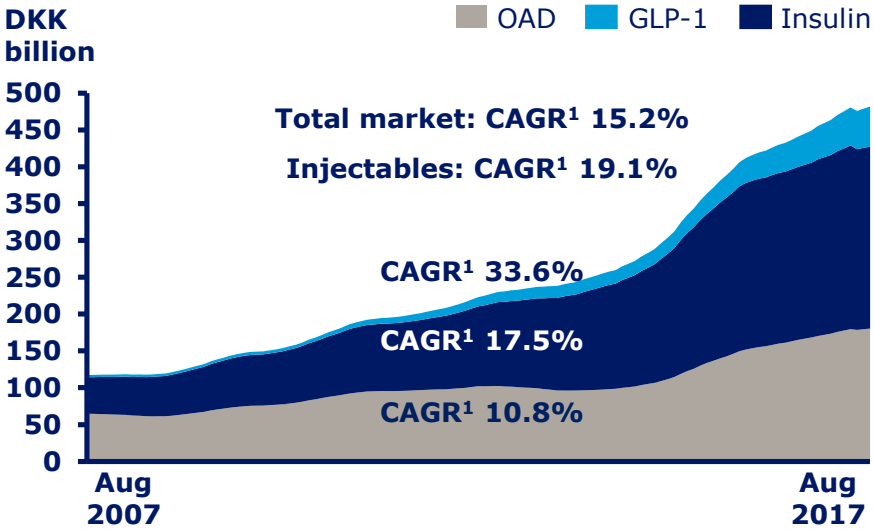
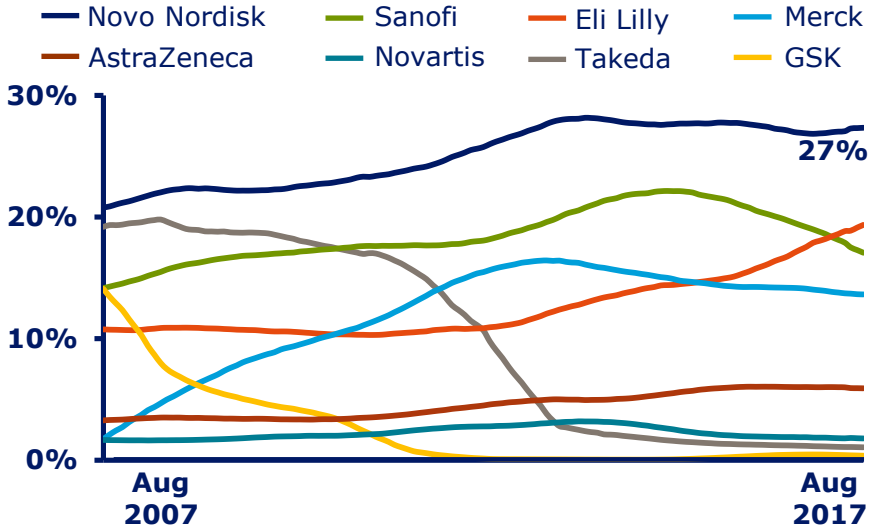
Novo Nordisk has a strong leadership position within the growing diabetes care market

Global diabetes care market by treatment class



[1] CAGR for 10-year period
OAD: Oral anti-diabetic
Source: IMS monthly MAT Aug, 2017 value figures

Global diabetes care value market share



Source: IMS monthly MAT Aug, 2017 value figures

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Significant growth opportunities fuelled by strong pipeline across all four strategic focus areas

PHASE 1	PHASE 2	PHASE 3	SUBMITTED	APPROVED[1]
NN1436 – LAI287	Semaglutide – QD GLP-1	Oral semaglutide	Semaglutide – QW GLP-1	Levemir®
NN1406 – PI406	Anti-IL-21 and liraglutide	N8-GP – Long-acting rFVIII		NovoRapid®
NN9030 – G530L	Semaglutide obesity	Somapacitan – QW GH[2]		NovoMix®
NN9838 – Amylin analogue	Concizumab			Tresiba®
NN9747 – PYY analogue	Semaglutide NASH			Ryzodeg®
NN9277 – GG-co-agonist				Xultophy®
NN9499 – FGF21 obesity				Victoza®
NN9423 – Tri-agonist 1706				Fiasp®
NN7170 – Sc N8-GP				Saxenda®
				NovoSeven®
				NovoEight®
				NovoThirteen®
				REBINYN®/Refixia®[3]
				Norditropin®

Diabetes Obesity Haemophilia Growth disorders Serious chronic diseases

[1] Approved in all triad markets (US, EU and Japan), unless noted [2] Study conducted in adult growth hormone disorder [3] REBINYN® is the brand name in the US and Refixia® in the EU
QW: once-weekly; GG: glucagon GLP-1; Sc: subcutaneous; QD: once daily; GH: growth hormone

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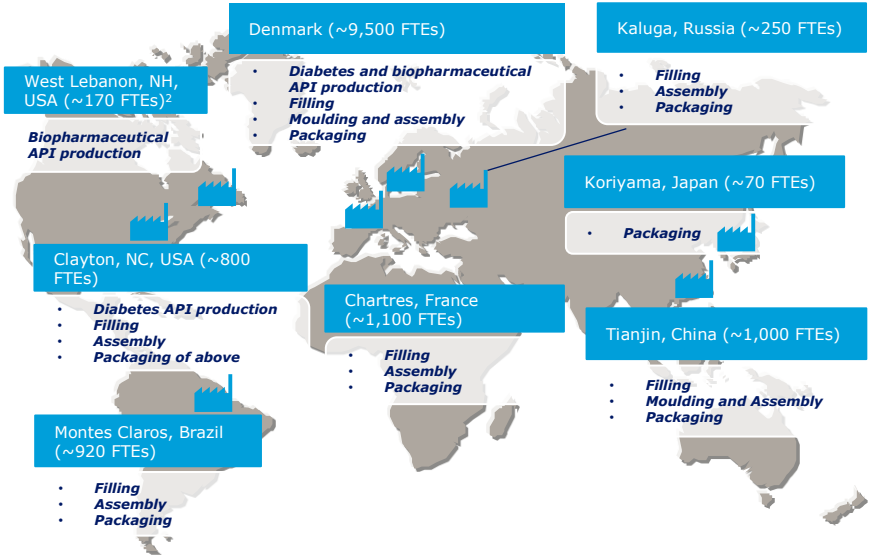
Growth opportunities supported by strong global presence in both sales and manufacturing

FTEs in sales regions[1]

North America Operations:	~4,800
Region Africa, Asia, Middle-East and Oceania (AAMEO):	~4,500
Region China:	~3,000
Region Europe:	~2,700
Region Japan & Korea:	~1,200
Region Latin America:	~850
Total non-HQ/manufacturing FTEs:	**~17,000[1]**

Global manufacturing setup



[1] FTEs represent full-time equivalents in Novo Nordisk's sales regions (excludes all other employees in headquarter, research sites and manufacturing sites) as of Dec 2016
[2] New Hampshire facility is currently under establishment

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Solid patent protection of innovative drugs

Novo Nordisk's position is protected by patents and value chain setup

Patent protection[1]

	EU/US
Fiasp fast-acting insulin aspart	2030[2]
Xultophy insulin degludec/liraglutide [rDNA origin] injection	2029[3]
TRESIBA insulin degludec [rDNA origin] injection	2028/29
RYZODEG 70% insulin degludec and 30% insulin aspart [rDNA origin] injection	2028/29
Levemir (insulin detemir)	2018/19
NovoMix (biphasic insulin aspart)	exp 2015/17[2]
NovoRapid (insulin aspart)	2017[2]/17[2]
VICTOZA	2023[4]/23[5]
norditropin	exp 2017/17[2]

Unique value chain position

- Research & Development
- Manufacturing
- Commercialisation

- History of protein engineering
- Highly efficient, flexible and capital intensive manufacturing
- Global commercial footprint

[1] List does not include all marketed Novo Nordisk products. [2] Formulation patent expiration year
[3] Protected by patents on the individual compounds insulin degludec and liraglutide as listed
[4] Assuming paediatric extension. [5] Saxenda patent identical to the Victoza® patent
Exp: Expired. Source: Novo Nordisk

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Barriers to entry for biosimilar players

Research & Development

- Need to show comparability in PK/PD trials
- Strict regulatory requirements in EU and the US
- Requirement for both drug and device offering

Manufacturing

- Economies of scale for incumbents
- Up-front CAPEX requirements with slow return on investment

Commercialisation

- Large and fragmented target audience
- Cost pressure from payers
- On-going conversion to next generation drugs and slow market dynamics

PK: Pharmacokinetic, PD: Pharmacodynamic; CAPEX: Capital expenditure

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Diabetes and obesity

Diabetes – the inability to manage blood sugar levels appropriately

Facts about diabetes

Diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin produced by the pancreas

Primary classifications:

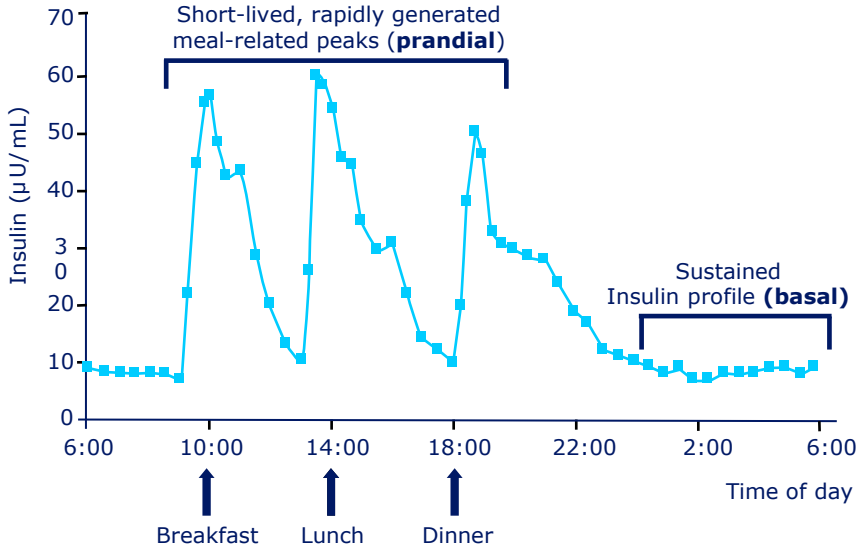
Type 1 diabetes: Complete insulin deficiency due to destruction of beta-cells in the pancreas

Type 2 diabetes: Characterised by some degree of insulin resistance and insulin deficiency

Insulin:

- Facilitates uptake of blood sugar into cells
- Inhibits glucose release from the liver

The aim of insulin therapy is to recreate normal blood insulin profile



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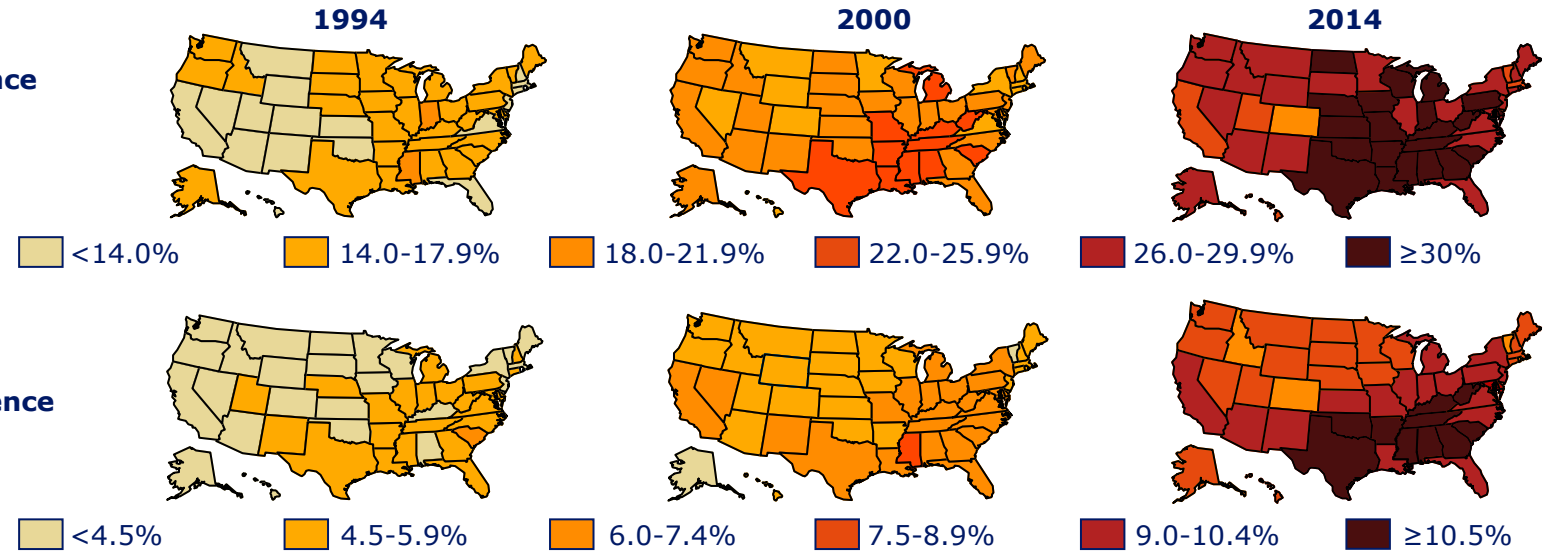
Diabetes pandemic is fuelled by growing rates of obesity

US CDC data on obesity and diabetes prevalence among adults



CDC: Centers for Disease Control and Prevention
Source: CDC's Division of Diabetes Translation. National Diabetes Surveillance System available at http://www.cdc.gov/diabetes

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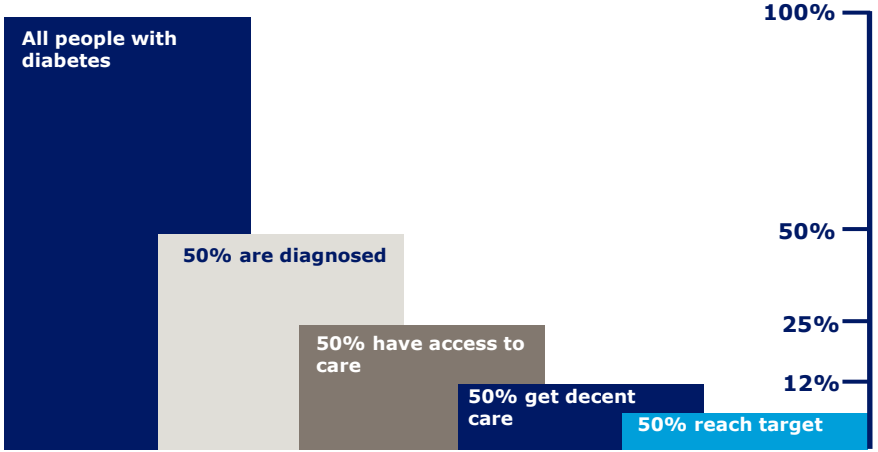
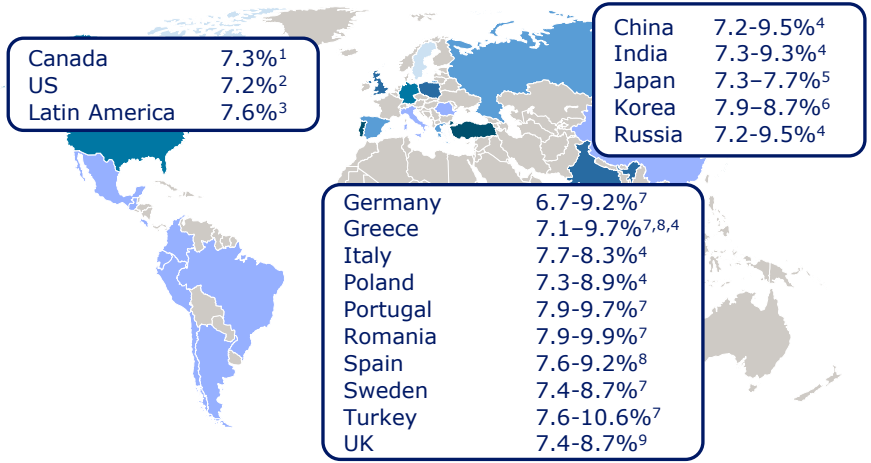
Poor diagnosis rates, lack of access to optimal treatment and poor glycaemic control remain global problems

Diagnosis and optimal treatment remains a challenge – the rule of halves



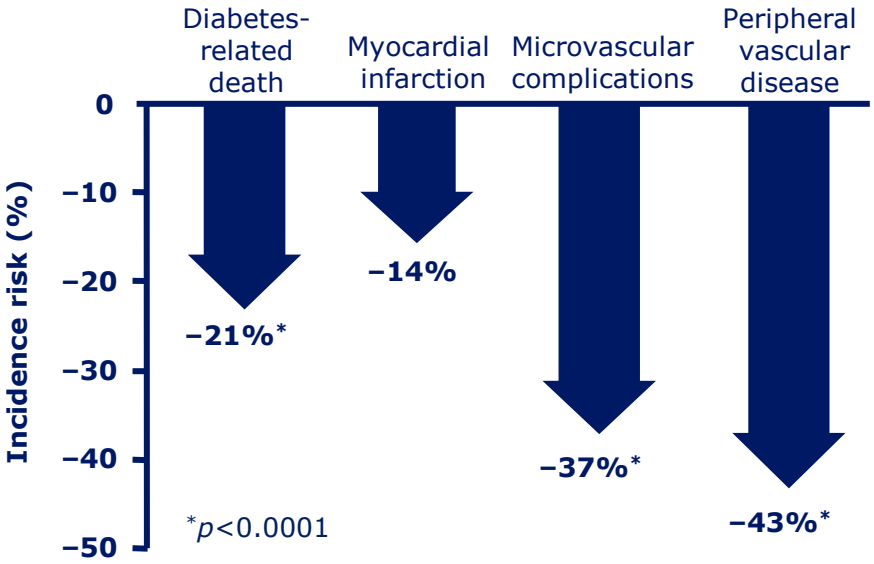
The worldwide challenge of glycaemic control: Mean HbA_{1C} in type 2 diabetes



[1] Harris et al. Diabetes Res Clin Pract 2005;70:90–7; [2] Hoerger et.al. Diabetes Care 2008;31:81–6; [3] Lopez Stewart et al. Rev Panam Salud Publica 2007;22:12–20; [4] Valensi et al. Int J Clin Pract 2009;63(3):522-31; [5] Arai et al. J Diabetes Investig. 2012 Aug 20;3(4):396-401; [6] Ko et al. Diab Med 2007;24:55–62; [7] Oguz et al. Curr Med Res Opin 2013;29:911–20; [8] Liebl et al. Diab Ther 2012;3:e1–10; [9] Blak et al. Diab Med 2012;29:e13-20

UKPDS: Tight glycaemic control reduces risk of micro- and macrovascular complications

Risk reduction by lowering HbA_{1c} by 1%-point



UKPDS: UK Prospective Diabetes Study
Source: UKPDS, Stratton et al. BMJ 2000; vol. 321:405–12

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UK Prospective Diabetes Study 10-year follow-up: Legacy effect of tight glycaemic control

Relative risk reduction of intensive vs. conventional treatment (%)

SU/Insulin treated patients	1997	2007
Microvascular disease	25	24
Diabetes-related death	10	17
Myocardial infarction	16	15
All-cause mortality	6	13

Statistically significant improvement

Source: NEJM, vol. 359, Oct 2008

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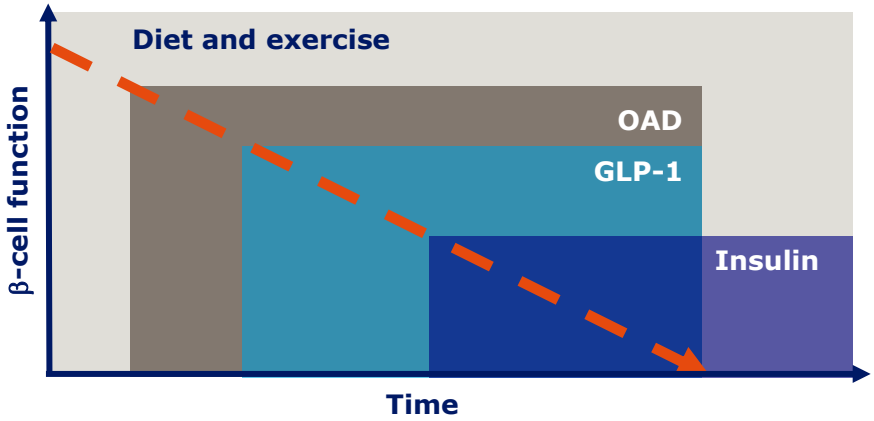
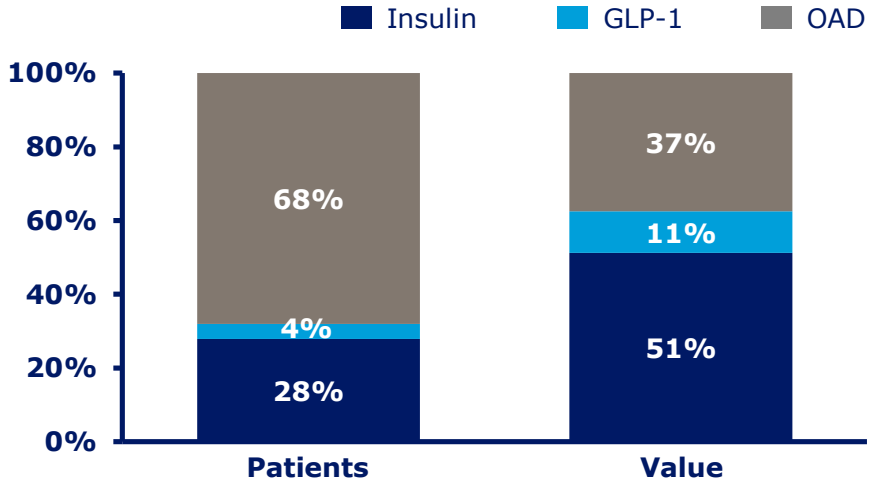
Insulin is the ultimate care for people with diabetes

Progression of type 2 diabetes and treatment intensification



OAD: Oral anti-diabetic

Distribution of patients and value across treatment classes



Note: Patient distribution across treatment classes is indicative and based on data for US, UK, Germany and France. Value figures based on IMS MAT Aug 2017
Source: IMS PharMetrix claims data, IMS disease analyser, IMS Midas

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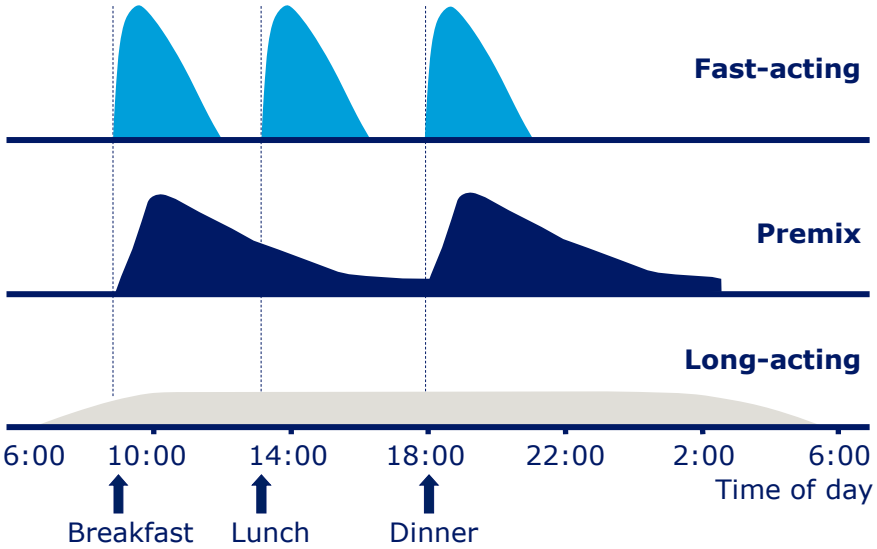
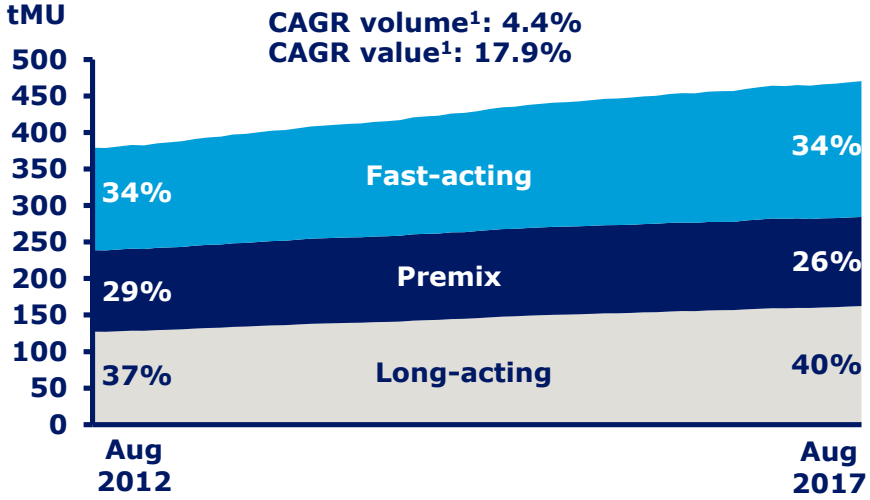
The insulin market is comprised of three segments

Insulin action profiles



Global insulin volume market by segment



[1] CAGR for 5-year period. Value in DKK
Source: IMS monthly MAT volume and value Aug 2017 (DKK) figures

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Medications used for the treatment of type 2 diabetes

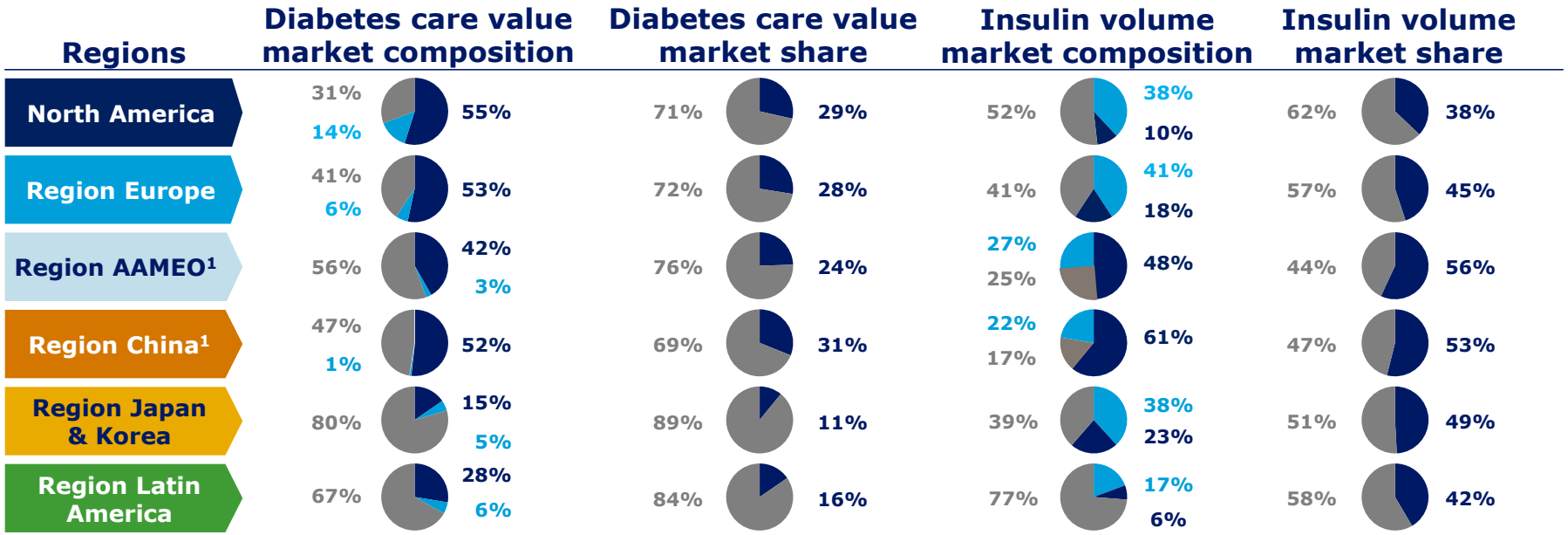
Commonly prescribed product classes for the treatment of type 2 diabetes

Class	HbA_{1c} change	Hypoglycae-mia risk	Weight change	CVD risk	Dosing (pr. day)	Contraindication/ undesired effects
Metformin	1.5	No	Neutral	Minimal	2 OADs	Kidney, liver
Sulfonylurea	1.5	Yes	Gain	None	1 OAD	Essentially none
TZDs	0.5 - 1.4	No	Gain	Varies	1 OAD	CHF, liver
DPP-IV inhibitors	0.6 - 0.8	No	Neutral	TBD	1-2 OADs	None
SGLT-2 inhibitors	0.5 - 0.9	No	Loss	Varies	1 OAD	Genital infections, urinary tract infections
GLP-1	1.0 - 2.0	No	Loss	Varies	Varies	GI side effects, MTC
Long-acting insulin	1.5 - 2.5	Yes	Gain	TG and HDL	1 injection	Hypoglycaemia
Fast-acting insulin	1.5 - 2.5	Yes	Gain	TG and HDL	1-4 injections	Hypoglycaemia

Note: TG and HDL: Beneficial effect on triglycerides and high-density lipoprotein cholesterol; CHF: Congestive heart failure; GI: Gastro intestinal; MTC: Medullary thyroid cancer; TZD: thiazolidinediones; OAD: Oral anti-diabetic; TBD: to be defined.

Sources: Adapted from: Nathan DM, et al. Diabetes Care. 2006; 29:1963-1972; Nathan DM, et al. Diabetes Care. 2007;30:753-759; Nathan DM, et al. Diabetes Care. 2008;31:173-175. ADA. Diabetes Care. 2008;31:S12-S54. WelChol PI. 1/2008.

Solid position in the diabetes care market across all regions with leading insulin market share



AAMEO: Africa, Asia, Middle-East and Oceania
[1] IMS only covers part of the channels in Region AAMEO and Region China
Source: IMS Aug, 2017 monthly MAT volume and value (DKK) figures

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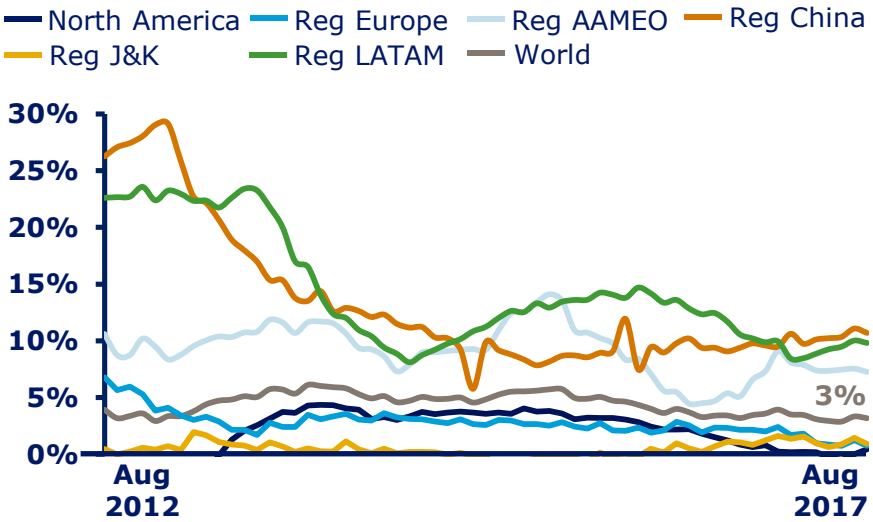
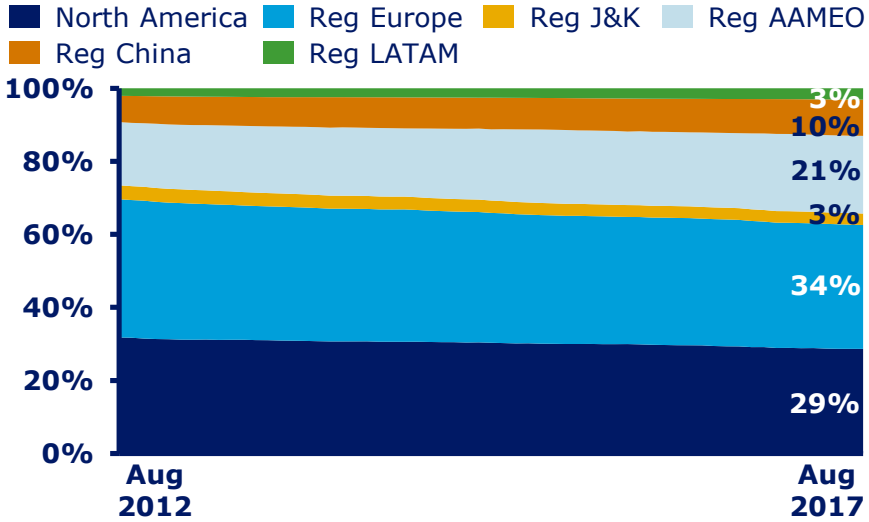
Stable global insulin volume growth

Regional insulin volume growth



Reg: Region; J&K: Japan & Korea; AAMEO: Africa, Asia, Middle-East and Oceania; LATAM: Latin America
Note: Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS monthly MAT Aug, 2017 volume figures

Regional insulin volume market split



Reg: Region; J&K: Japan & Korea; AAMEO: Africa, Asia, Middle-East and Oceania; LATAM: Latin America
Note: Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS monthly MAT Aug, 2017 volume figures

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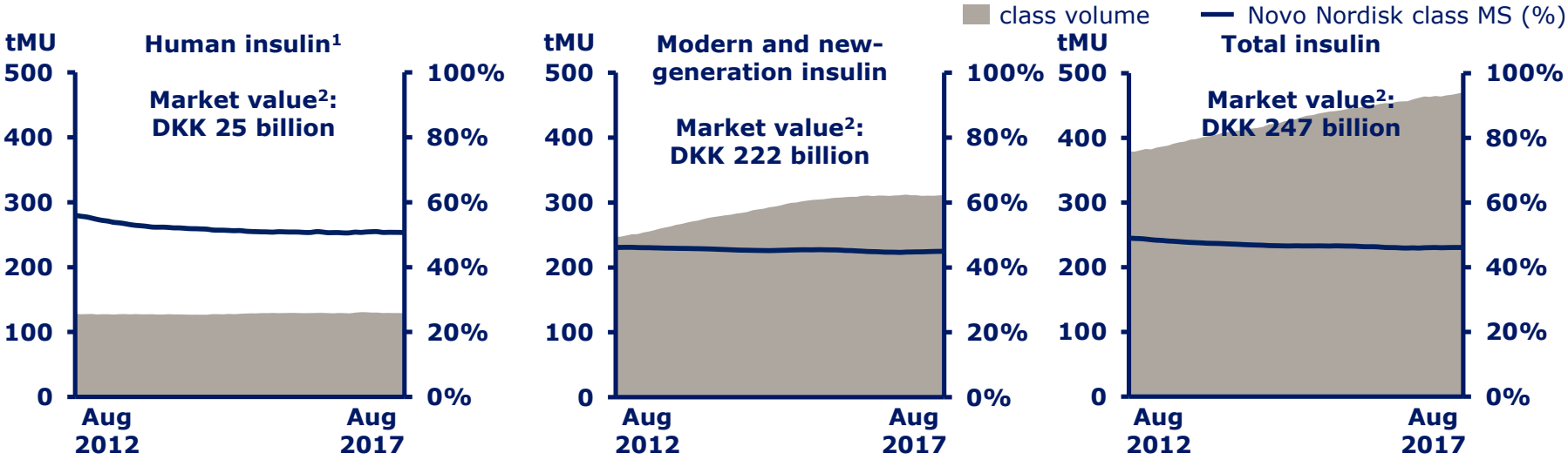
Maintaining global insulin leadership by sustaining modern and new-generation insulin market share

Novo Nordisk global volume market share across insulin classes



[1] Includes animal insulin. [2] Annual value of total insulin class. tMU: Thousand mega units
Note: Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS, monthly MAT Aug, 2017 value and volume figures

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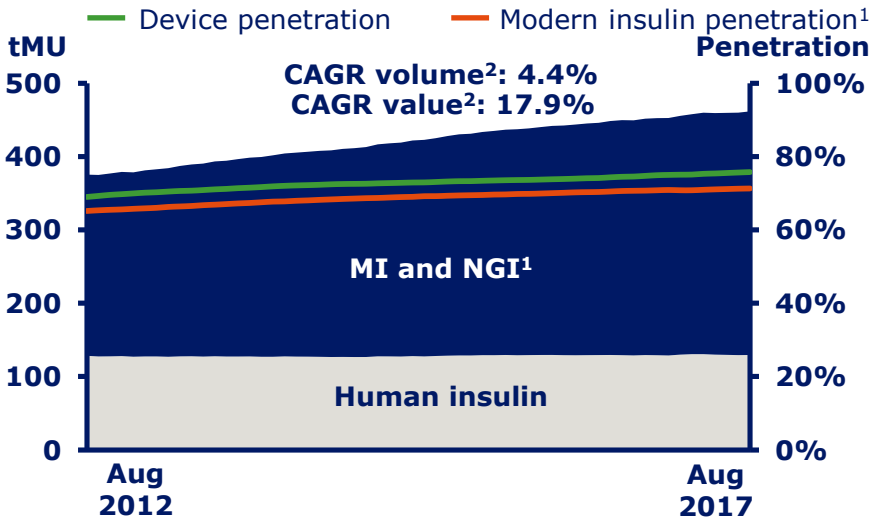
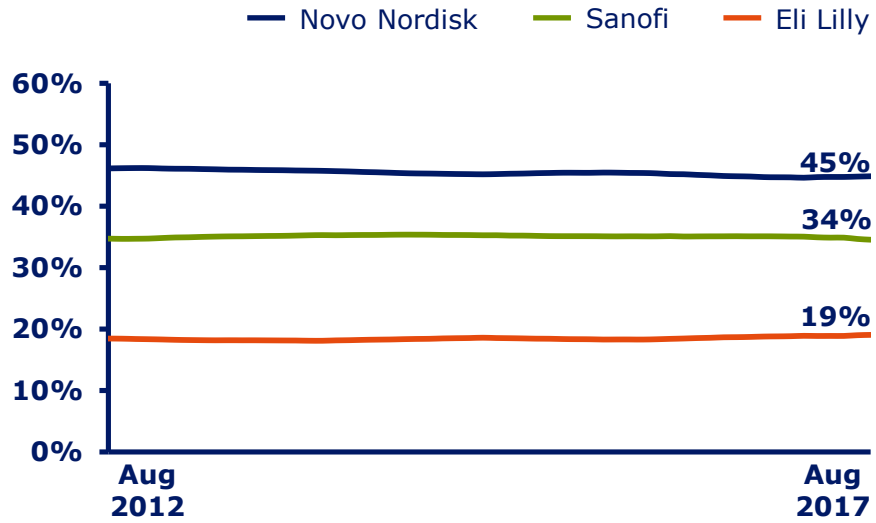
Strong underlying insulin market growth and sustained global volume market share

Global insulin market



[1] MI: Modern insulin. NGI: New-generation insulin [2] CAGR for 5-year period
Note: Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS monthly MAT Aug, 2017 volume and value (DKK) figures

Global modern and new-generation insulin volume market shares



Note: Data is sensitive to changes in IMS data collection and reporting methodology, does not add up to 100% as only selected pharmaceutical companies are included
Source: IMS monthly MAT Aug, 2017 volume figures

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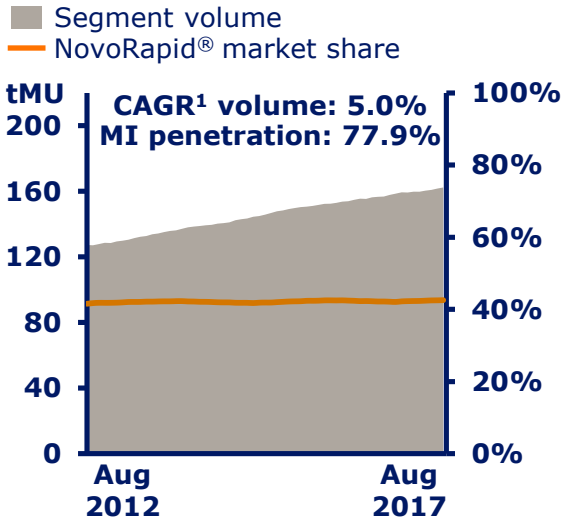
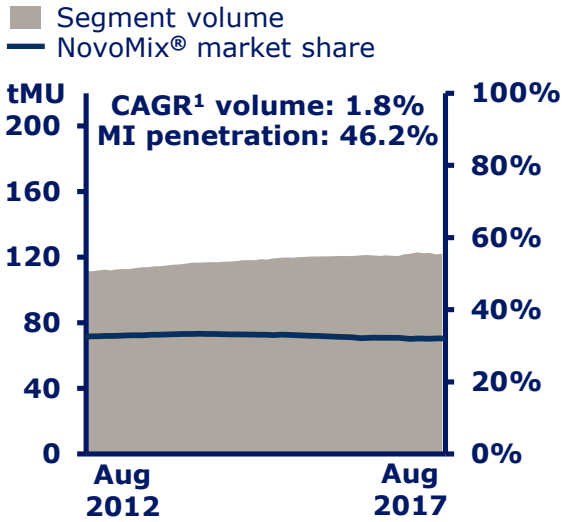
Continued global single digit volume growth within the modern insulin segments

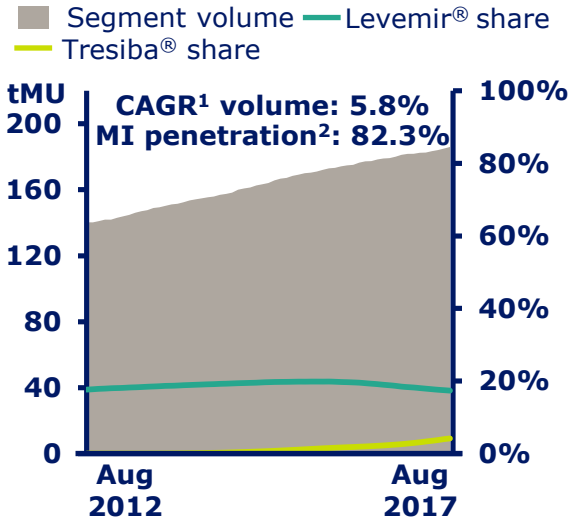
Fast-acting insulin



Premix insulin



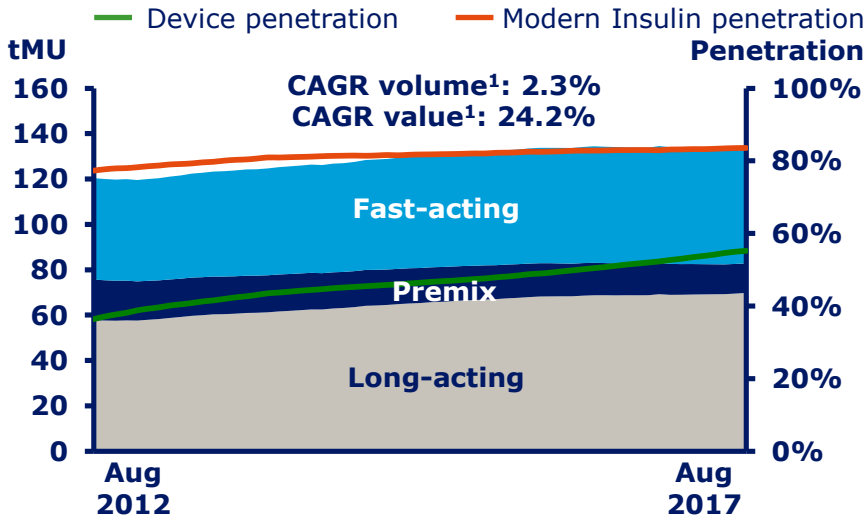
Long-acting insulin



¹ CAGR for 5-year period. ² Includes new-generation Insulin. tMU: Thousand mega units
Note: Modern insulin (MI) penetration is of total segment, ie including animal and human insulin; Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS monthly MAT Aug, 2017 volume figures

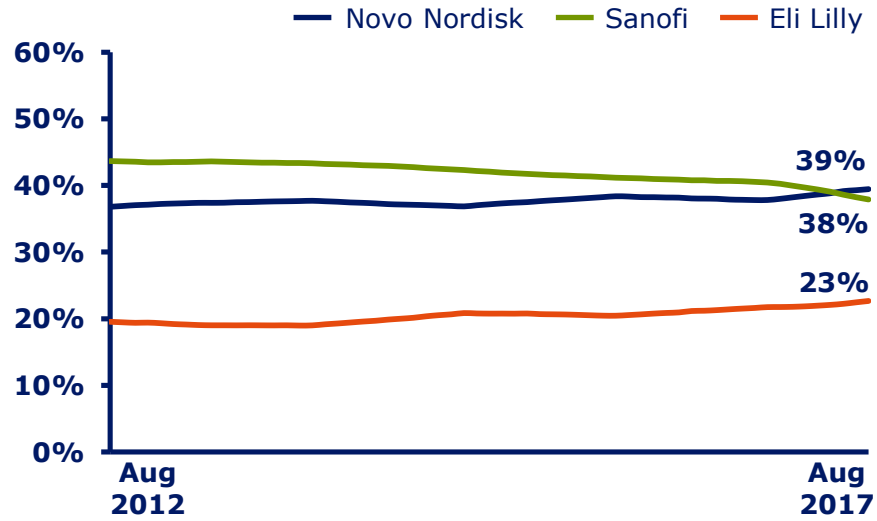
Novo Nordisk is now the market leader in the US within the modern and new-generation insulin segment

US insulin market by segment



[1] CAGR for 5-year period
Source: IMS monthly MAT Aug, 2017 volume and value (DKK) figures

Modern insulin and new-generation insulin volume market shares in the US



Source: IMS monthly MAT Aug, 2017 volume figures

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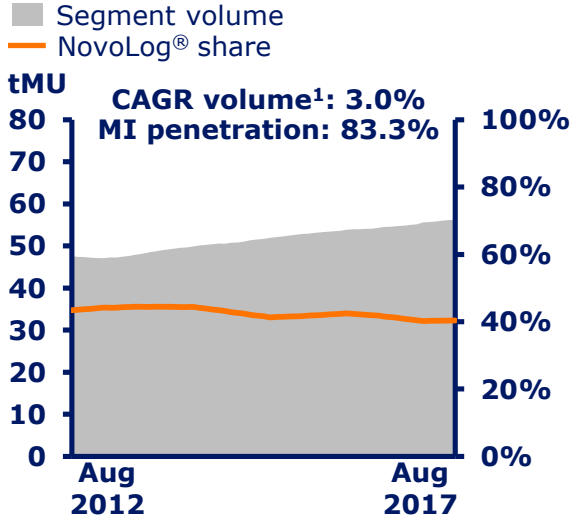
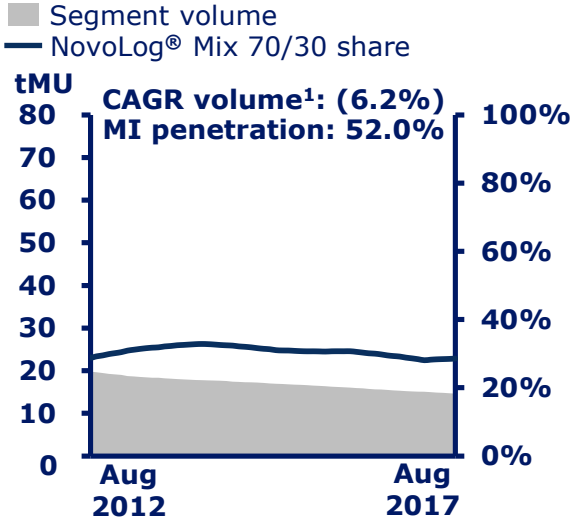
Novo Nordisk's modern and new generation insulins maintain market share in the US insulin market

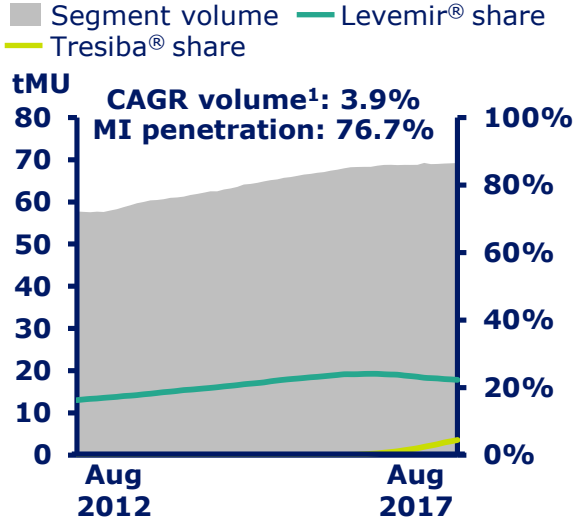
US fast-acting insulin



US premix insulin



US long-acting insulin



[1] CAGR for 5-year period; tMU: Thousand mega units
Note: US trend data reflect changes to IMS data collection coverage and methodology as of January 2012. Modern insulin (MI) penetration is of total segment, ie including human insulin
Source: IMS monthly MAT Aug, 2017 volume figures

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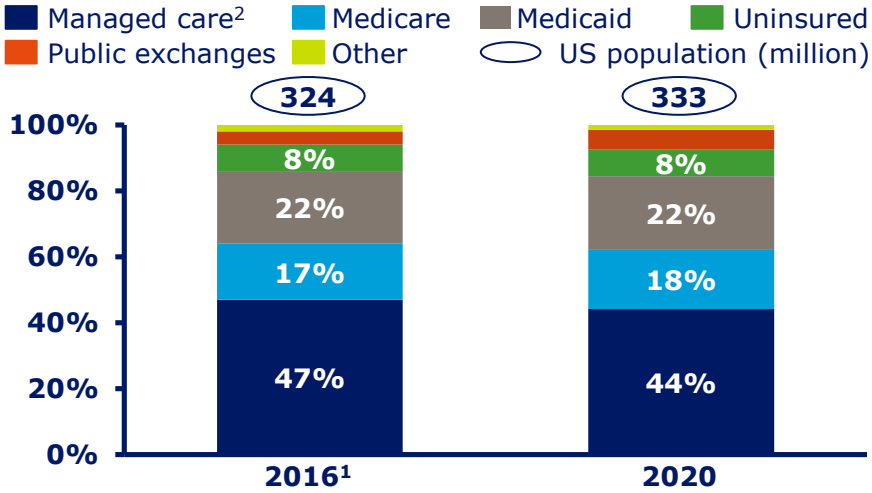
US health insurance is dominated by few large commercial payers with slow expansion of public insurance coverage

US population by health insurance status expected to remain stable in coming years



[1] 2016 data reflect historical data in Jan 2016
[2] Managed care population was slightly underestimated as only population under age 65 were captured to avoid double counting with those eligible for Medicare.
Source: Congressional Budget Office Health Insurance Coverage 2016-2026; Medicare Enrollment Dashboard; CMS Health Insurance Enrollment Projection 2015-2025; Medicaid and CHIP Enrollment Report Jan. 2016

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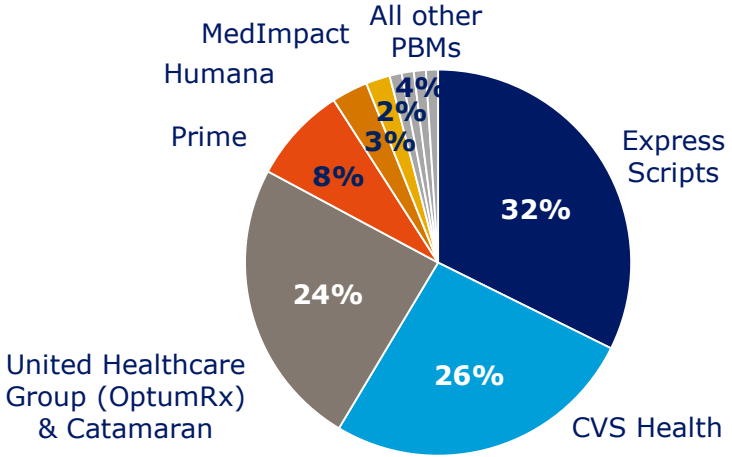
In 2016, PBMs covered 266 million lives and the market has consolidated



PBM: Pharmacy Benefit Manager
Note: Covers all main channels (Managed Care, Medicare Part D and Medicaid); market share based on claim adjudication coverage, i.e. not on formulary/rebate decision power
Source: Cleveland Research PBM Intelligence 2016

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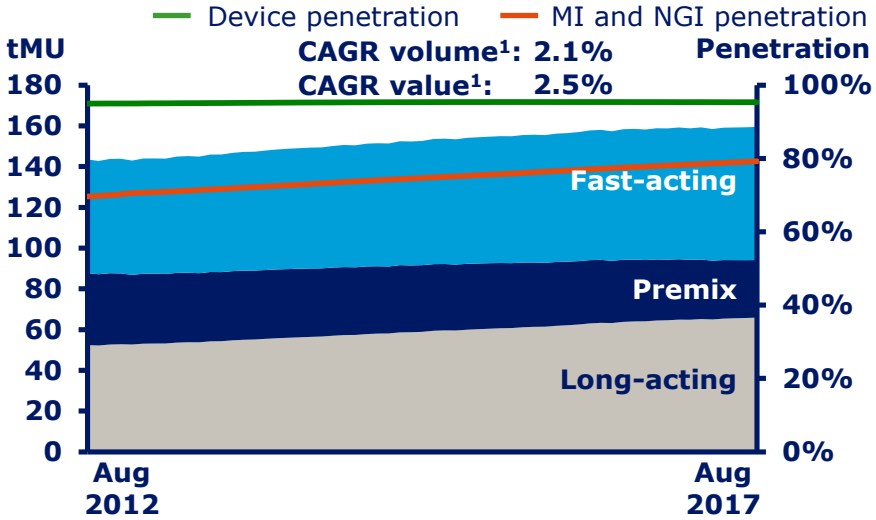
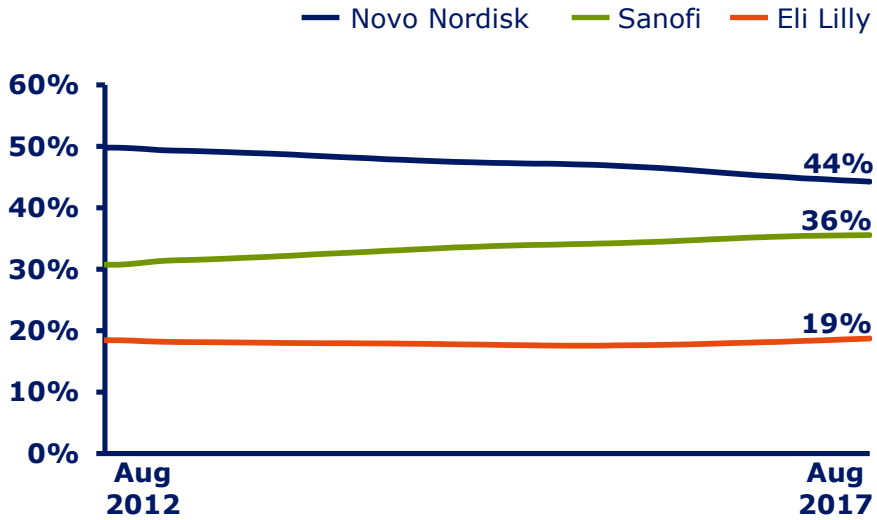
Sustained leadership position in the European modern and new-generation insulin market

European insulin market by segment



[1] CAGR for 5-year period
[2] MI: Modern insulin; NGI: New-generation insulin
Source: IMS monthly MAT Aug, 2017 volume and value (DKK) figures

European modern insulin and new-generation insulin volume market shares



Source: IMS monthly MAT Aug, 2017 volume figures, numbers do not add up to 100% due to smaller insulin manufacturers

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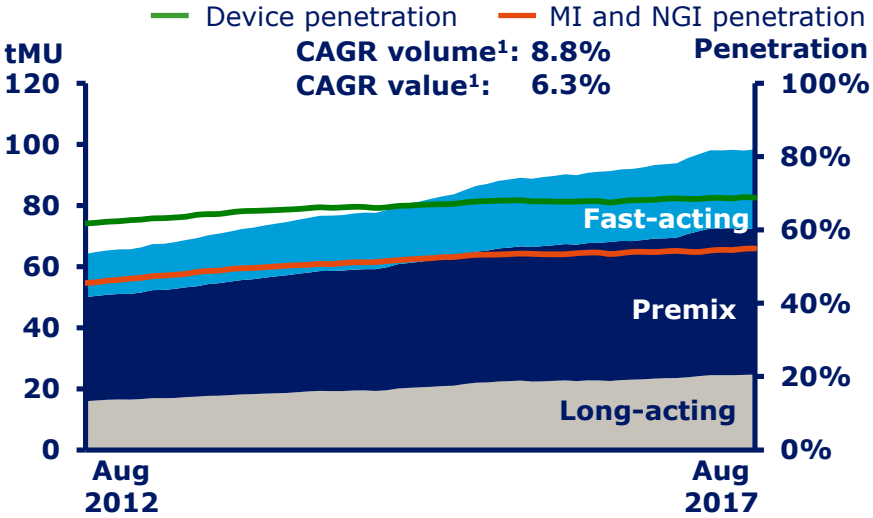
Stable leadership position in Africa, Asia, Middle-East and Oceania (Region AAMEO)

Region AAMEO insulin market by segment



[1] CAGR for 5-year period.
Note: IMS only covers the following 8 markets in AAMEO (retail data): Algeria, Egypt, India, New Zealand, Russia, Saudi Arabia, South Africa & Turkey, which together account for 82% of Novo Nordisk insulin sales in AAMEO
Source: IMS monthly MAT Aug, 2017 volume and value (DKK) figures
MI: Modern insulin; NGI: New-generation insulin

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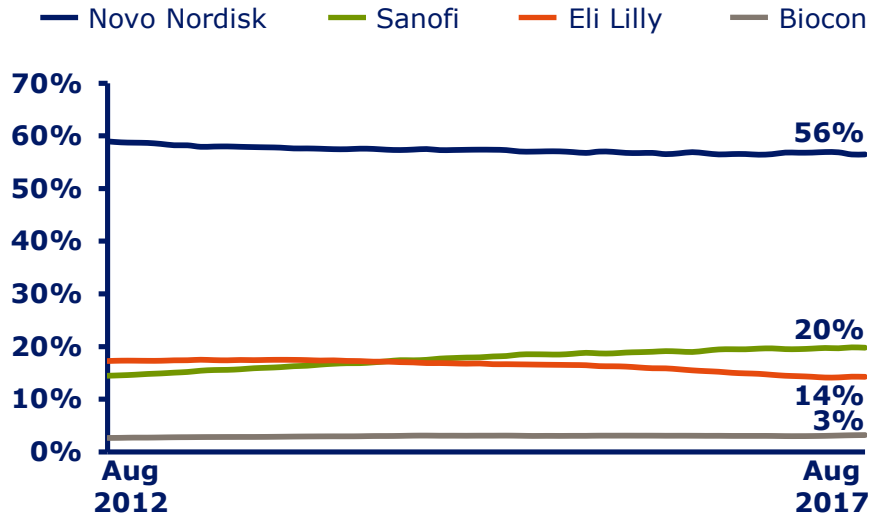
Region AAMEO modern and new-generation insulin volume market shares



Source: IMS monthly MAT Aug, 2017 volume figures, numbers do not add up to 100% due to smaller insulin manufacturers

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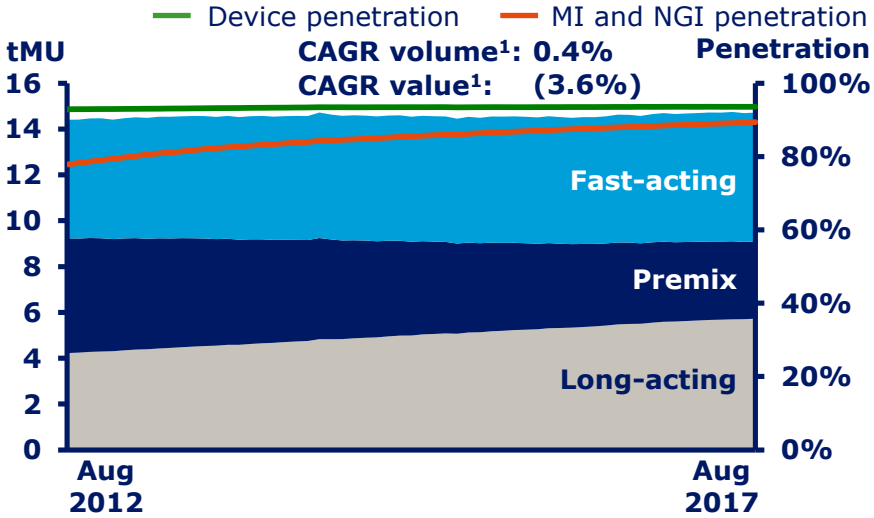
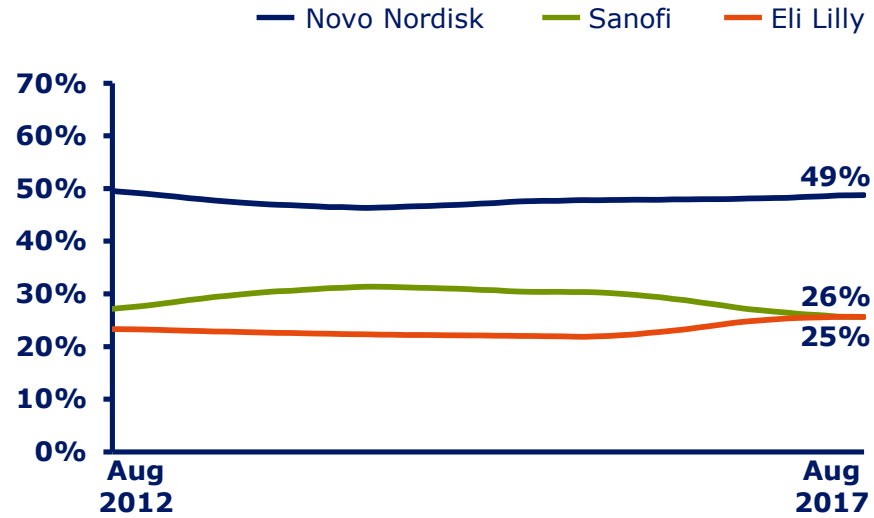
Solid market leadership position in Japan & Korea

Japan & Korea insulin market by segment



[1] CAGR for 5-year period
MI: Modern insulin; NGI: New-generation insulin
Source: IMS monthly MAT Aug, 2017 volume and value (DKK) figures

Japan & Korea modern and new-generation insulin volume shares



Source: IMS monthly MAT Aug, 2017 volume figures

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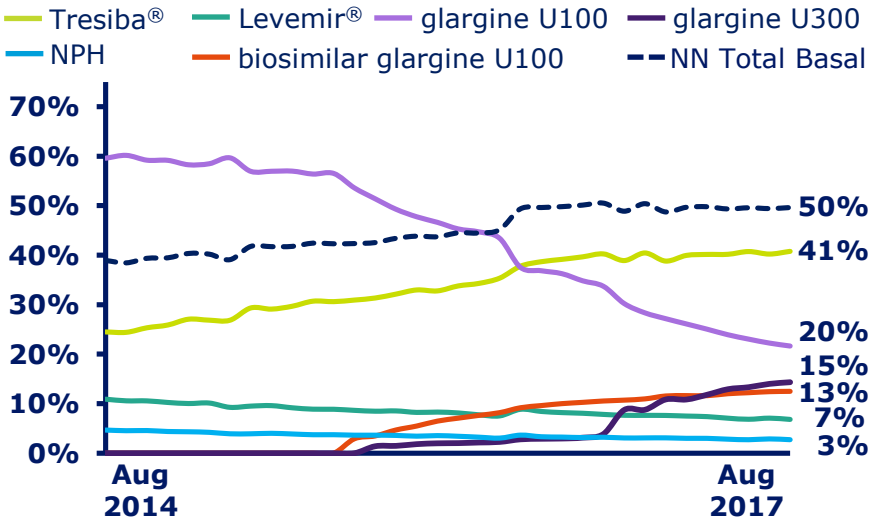
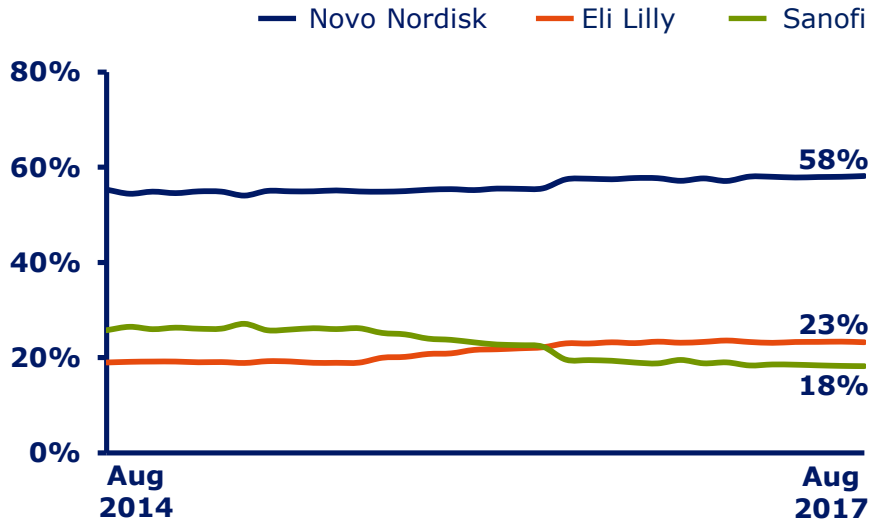
Solid Tresiba® performance strengthens basal insulin market share in Japan

Japanese basal value market shares



Source: IMS monthly Aug, 2017 value figures

Japanese total insulin value market shares



Source: IMS monthly Aug, 2017 value figures

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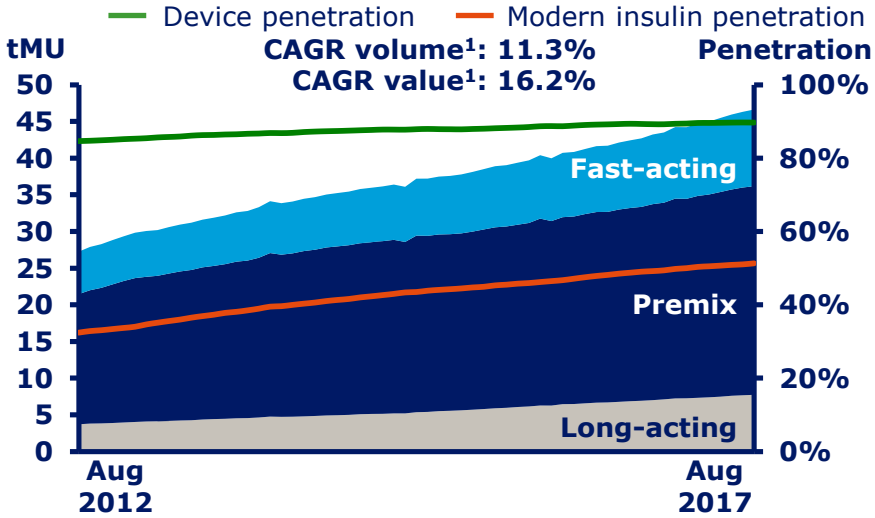
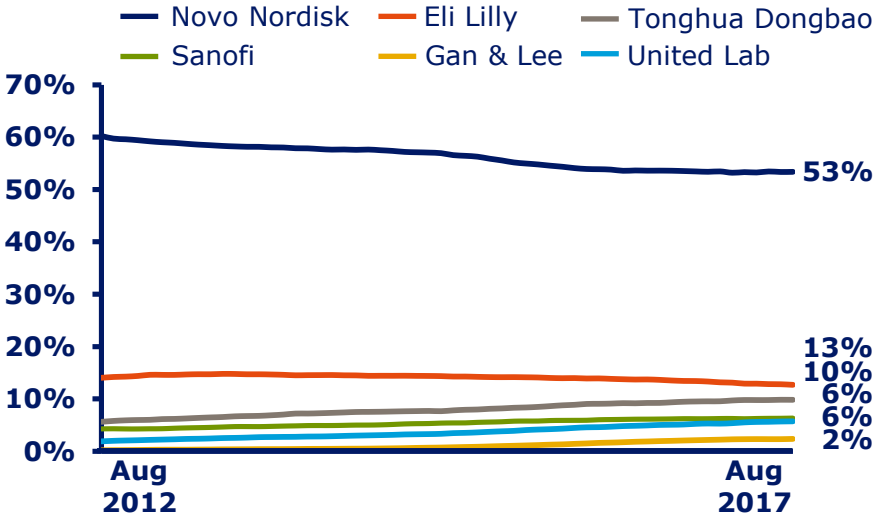
Solid growth in the Chinese insulin market

Chinese insulin market by segment



[1] CAGR for 5-year period
Note: IMS covers around 50% of the total Chinese market (hospital data)
Source: IMS monthly MAT Aug, 2017 volume and value (DKK) figures

Chinese insulin volume market shares



Note: Only selected competitors shown
Source: IMS monthly MAT Aug, 2017 volume figures, numbers do not add up to 100% due to smaller insulin manufacturers not included

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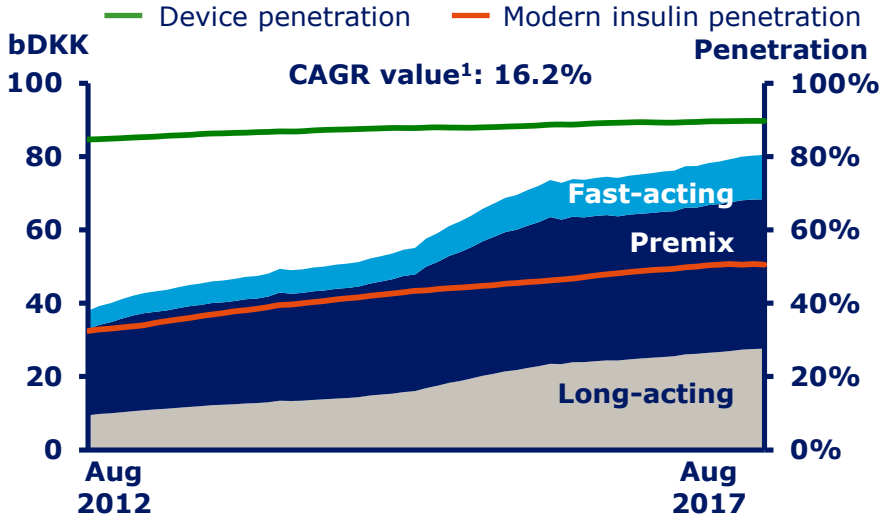
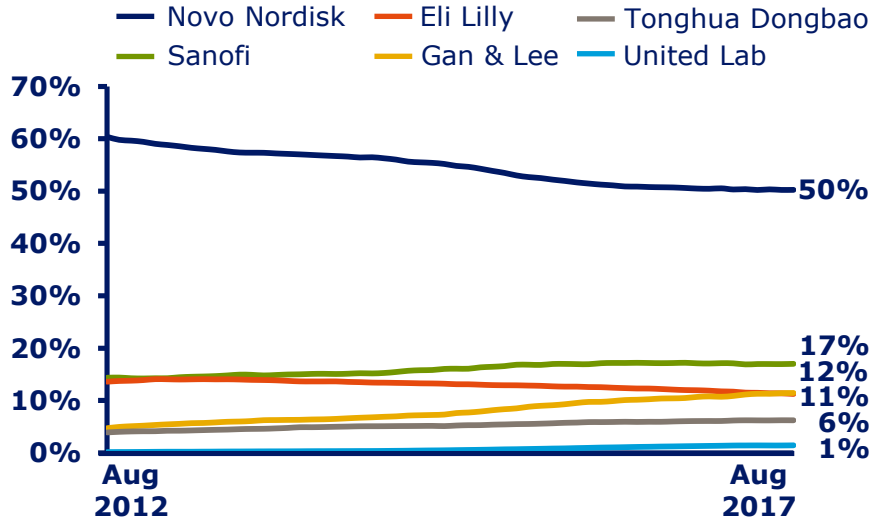
Continued growth in the long-acting insulin segment

Chinese insulin market by segment



[1] CAGR for 5-year period
Note: IMS covers around 50% of the total Chinese market (hospital data)
Source: IMS Rolling MAT Aug, 2017 value (DKK) figures

Chinese total insulin value market shares



Note: Only selected competitors
Source: IMS Rolling MAT Aug, 2017 value figures, numbers do not add up to 100% due to smaller insulin manufacturers not included

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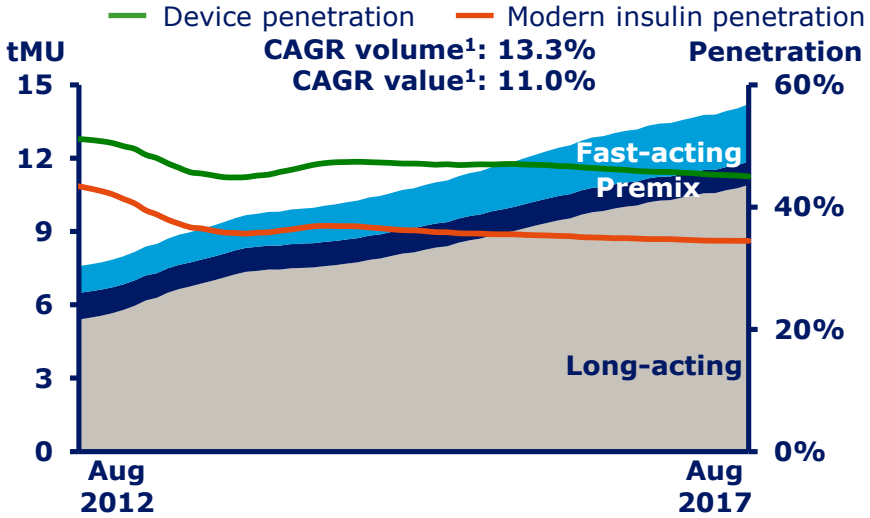
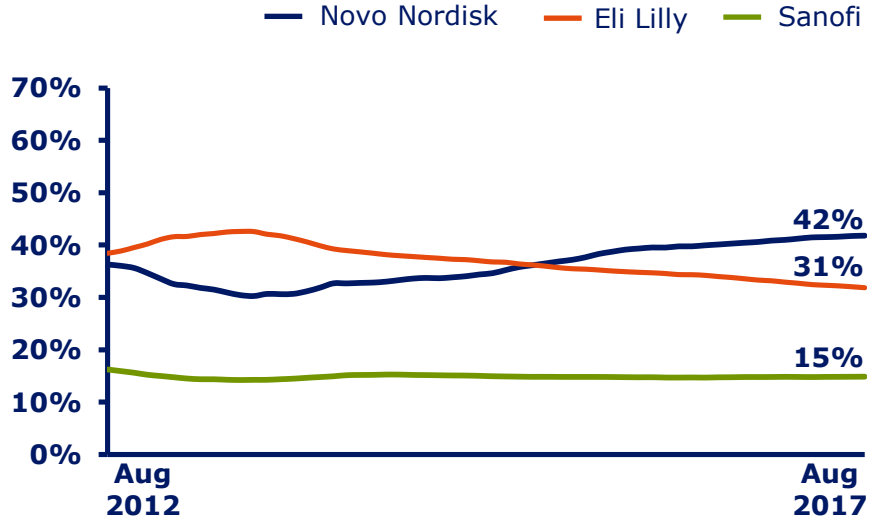
Strengthened insulin volume market share in Latin America

Latin America insulin market by segment



[1] CAGR for 5-year period
Note: IMS only covers the following 4 markets in Latin America (retail data): Argentina, Brazil, Colombia, Mexico
Source: IMS monthly MAT Aug, 2017 volume and value (DKK) figures
MI: Modern insulin; NGI: New-generation insulin

Latin America modern and new-generation insulin volume shares



Note: Only top-3 shown
Source: IMS monthly MAT Aug, 2017 volume figures, numbers do not add up to 100% due to smaller insulin manufacturers not included
MI: Modern insulin; NGI: New-generation insulin

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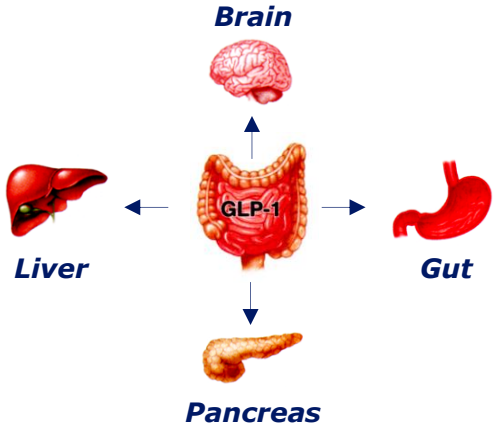
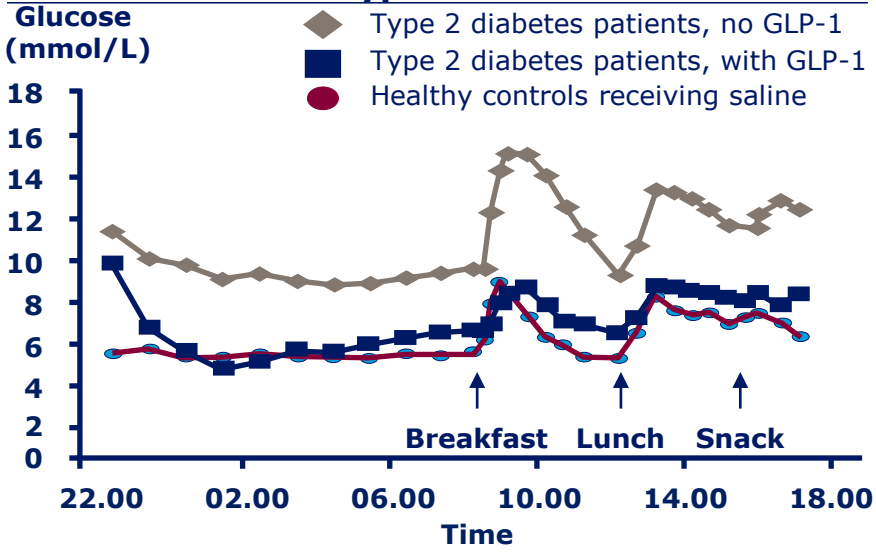
GLP-1 effect dependent on level of blood glucose

GLP-1 mechanism of action when blood sugar levels increase

- Increases insulin secretion in the pancreas
- Reduces glucagon secretion in the liver
- Slows gastric emptying in the gut
- Creates sense of satiety in the brain



GLP-1 lowers blood glucose in patients with type 2 diabetes



Source: Rachman et al. Diabetologia 1997;40:205–11

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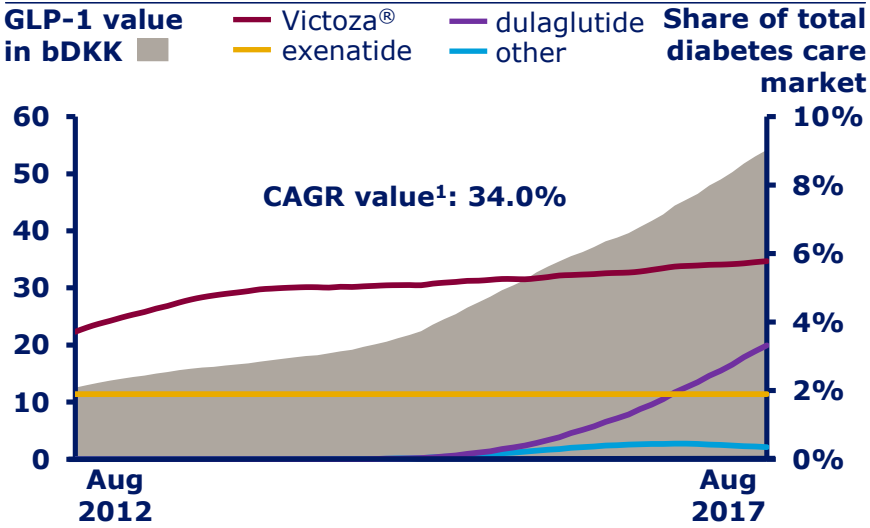
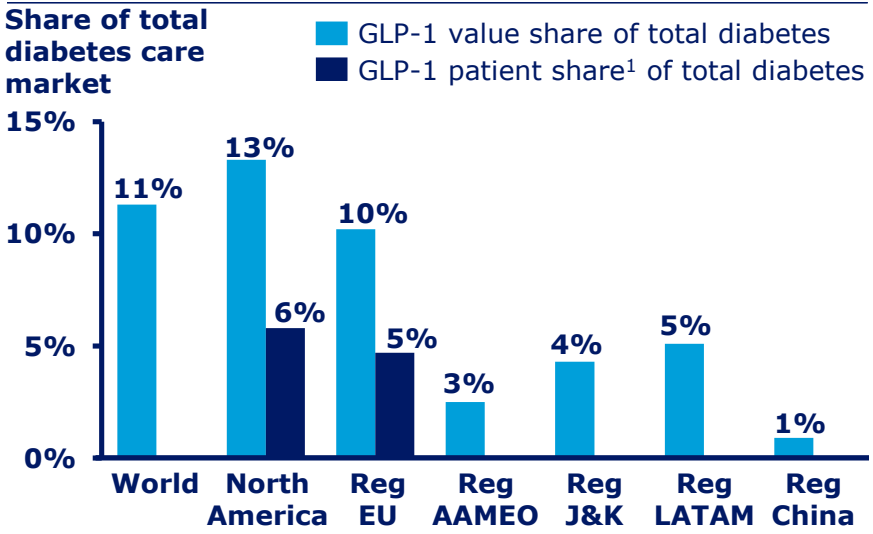
The GLP-1 segment accounts for 11% of global diabetes market value

Global GLP-1 market



GLP-1 value and patient share of the total diabetes market



[1] CAGR for 5-year period
Source: IMS monthly MAT Aug, 2017 value figures (DKK)

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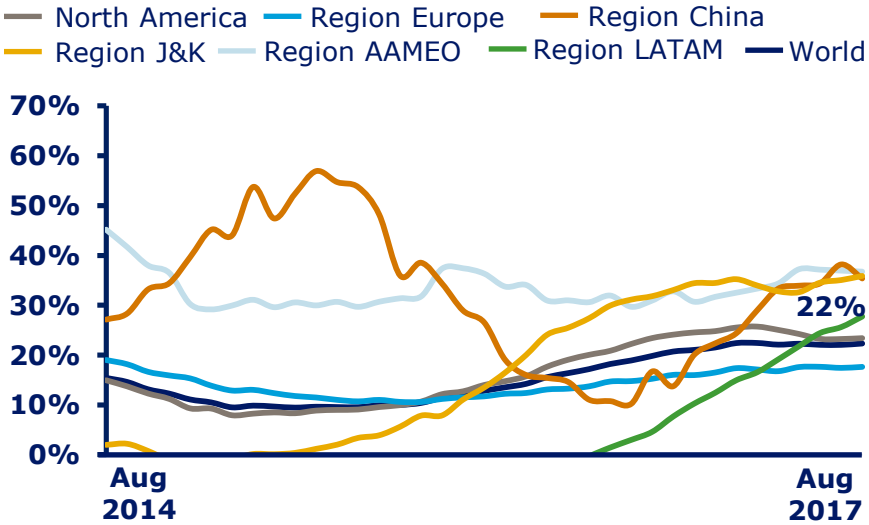
Reg: Region; AAMEO: Africa, Asia, Middle-East and Oceania; J&K: Japan & Korea; LATAM: Latin America.
[1] Patient share is indicative and based on data for US, UK, Germany and France only.
Source: Value data; IMS MAT Aug 2017. Patient data; IMS Disease Analyser (DE, FR, UK), QuintilesIMS LRx (USA), Aug 2017

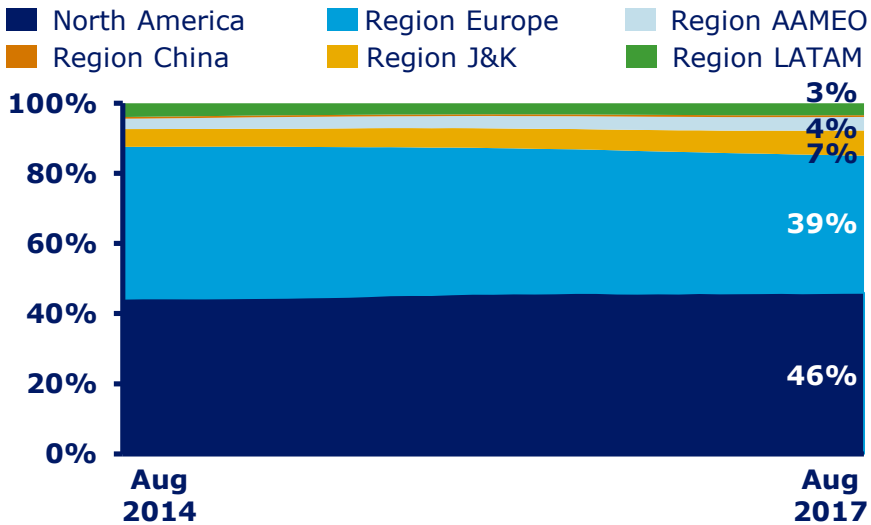
Strong GLP-1 volume growth in all regions

Regional GLP-1 volume growth



J&K: Japan & Korea; AAMEO: Africa, Asia, the Middle East and Oceania; LATAM: Latin America
Note: Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS monthly MAT Aug, 2017 volume figures

Regional GLP-1 volume market split



J&K: Japan & Korea; AAMEO: Africa, Asia, the Middle East and Oceania; LATAM: Latin America
Note: Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS monthly MAT Aug, 2017 volume figures

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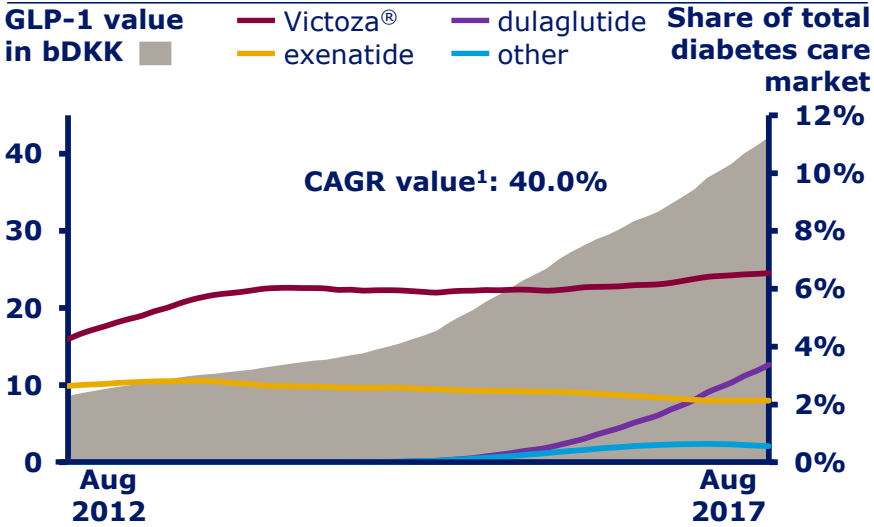
The GLP-1 segment accounts for 13% of total diabetes care market value in North America

North America GLP-1 market



[1] CAGR for 5-year period
Source: IMS monthly MAT Aug, 2017 value figures (DKK)

Key observations for Victoza® in the US market

- Victoza® value market share within the GLP-1 segment is 50%
- Around 80% of commercial and around 90% of Medicare Part D lives are covered without restrictions
- Around 60% of new patients who start on Victoza® have not used an a GLP-1 before
- Around 70% of prescriptions are for the higher dose 1.8 mg

Source: QIMS monthly, MAT Aug 2017

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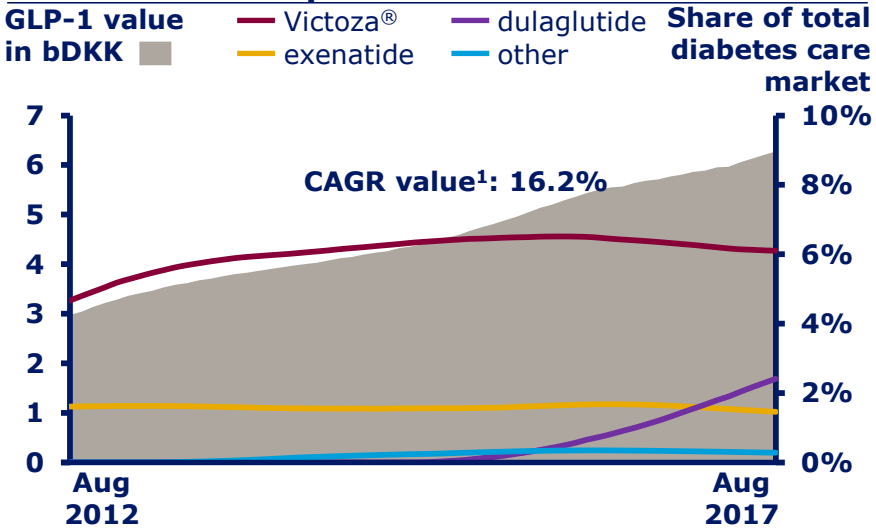
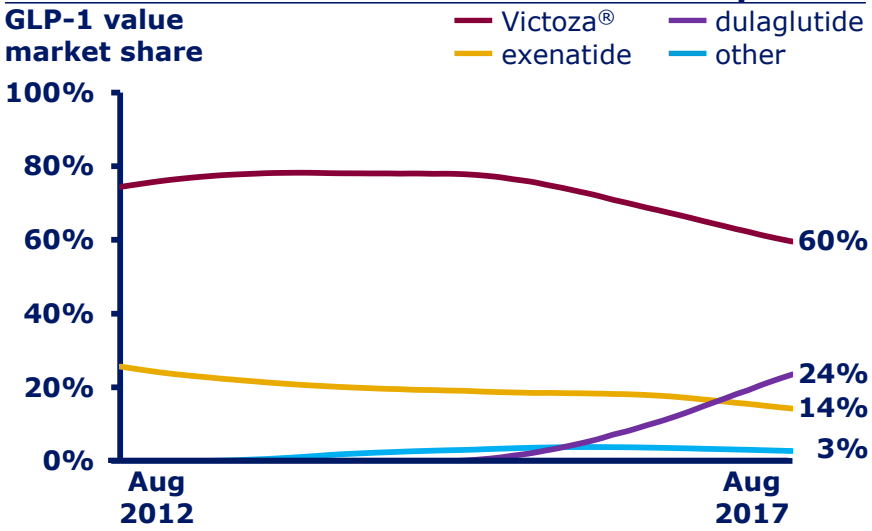
The GLP-1 segment accounts for around 10% of total diabetes care market value in Europe

European GLP-1 market



[1] CAGR for 5-year period
Source: IMS monthly MAT Aug, 2017 value figures (DKK)

Victoza® value market share in Europe



Source: IMS monthly MAT Aug, 2017 value figures (DKK)

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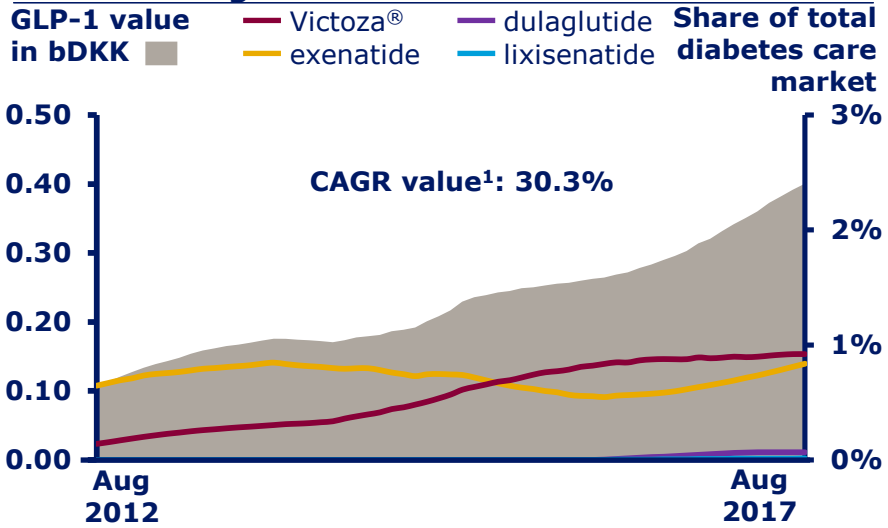
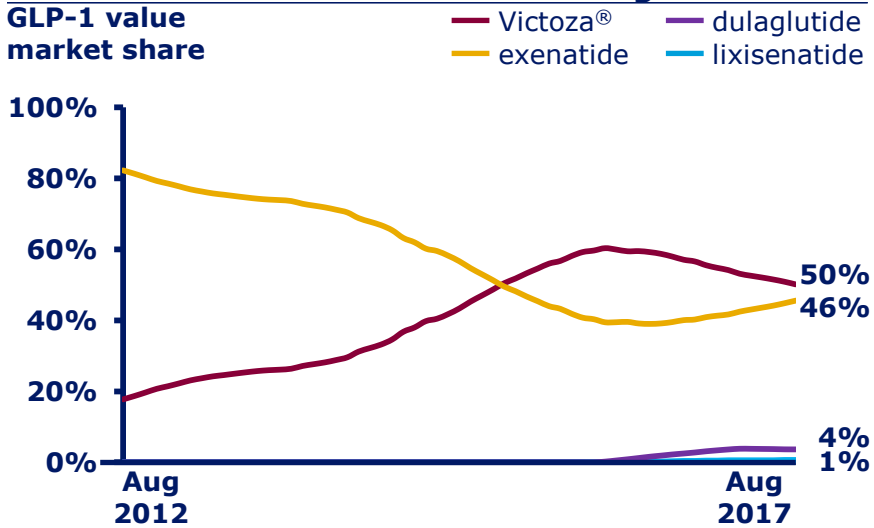
The GLP-1 segment accounts for 2% of total diabetes care market value in Region AAMEO

Region AAMEO GLP-1 market



Victoza® value market share in Region AAMEO



¹ CAGR for 5-year period
AAMEO: Africa, Asia, the Middle East and Oceania
Source: IMS monthly MAT Aug, 2017 value figures (DKK)

Source: IMS monthly MAT Aug, 2017 value figures (DKK)

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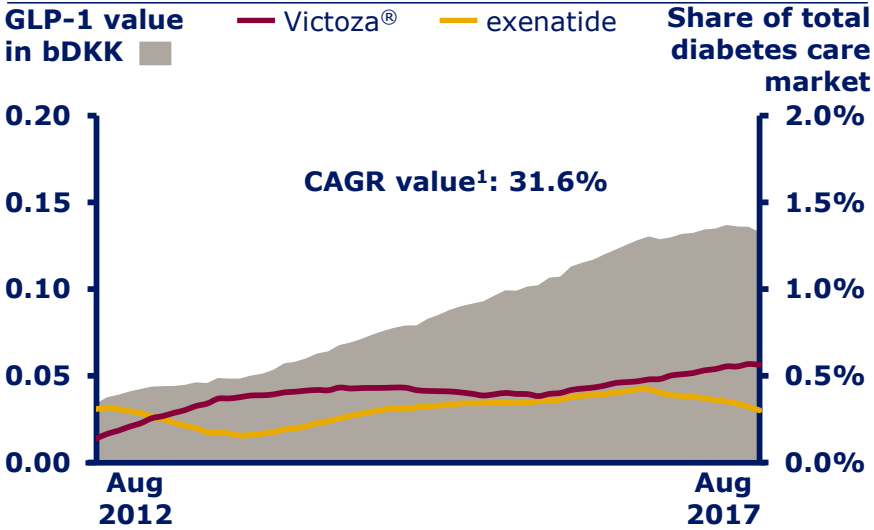
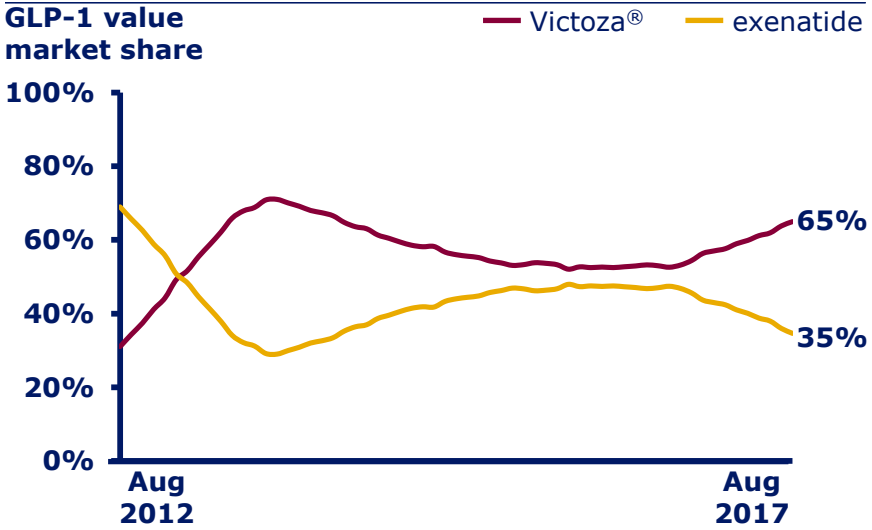
The GLP-1 segment accounts for around 1% of the total diabetes care market value in China

China GLP-1 market



[1] CAGR for 5-year period
Source: IMS monthly MAT Aug, 2017 value figures (DKK)

Victoza® value market share in China



Source: IMS monthly MAT Aug, 2017 value figures (DKK)

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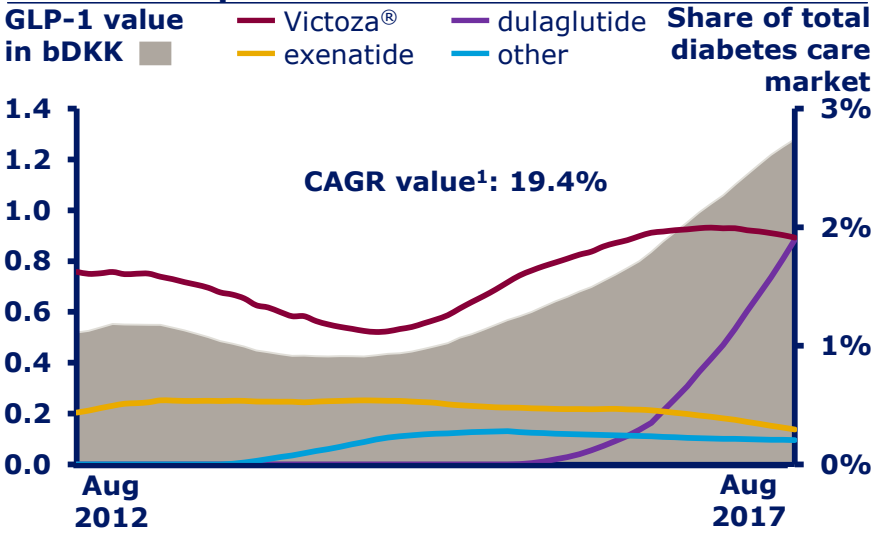
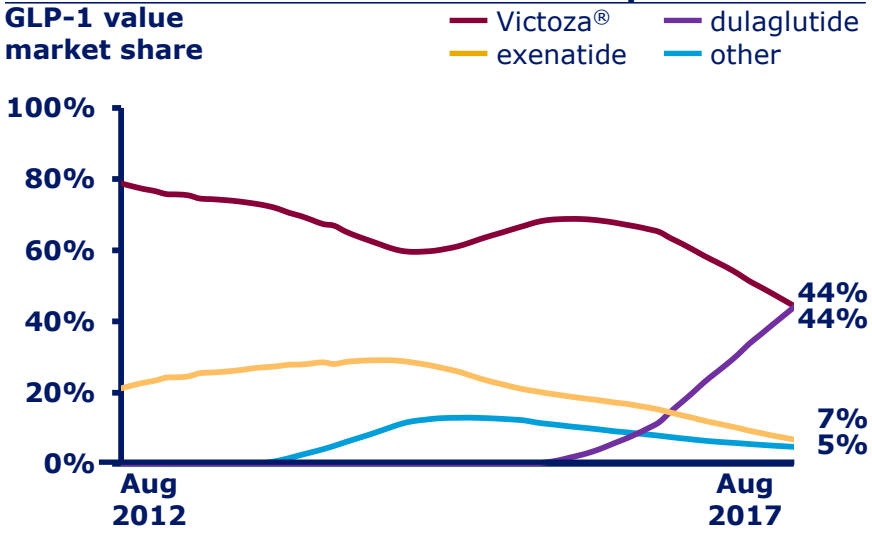
The GLP-1 segment accounts for around 4% of the total diabetes care market in Japan & Korea

Japan & Korea GLP-1 market



Victoza® value market share in Japan & Korea



¹ CAGR for 5-year period
Source: IMS monthly MAT Aug, 2017 value figures (DKK)

Source: IMS monthly MAT Aug, 2017 value figures (DKK)

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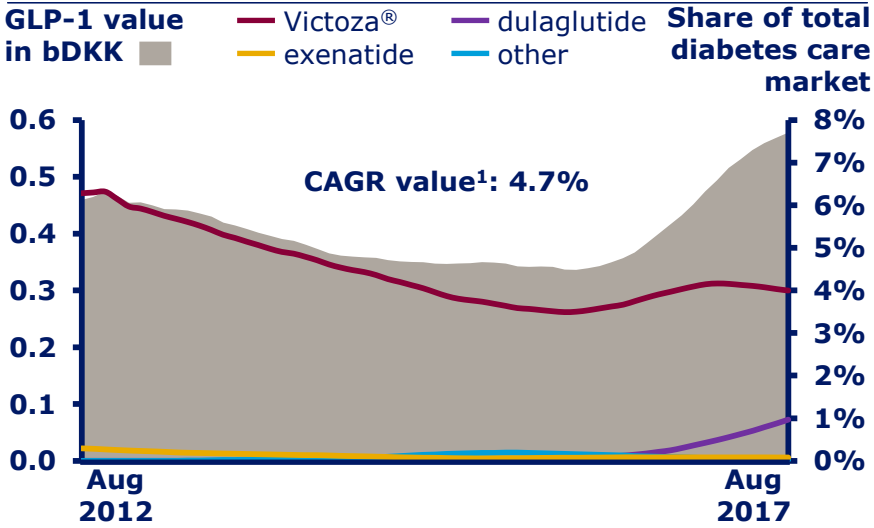
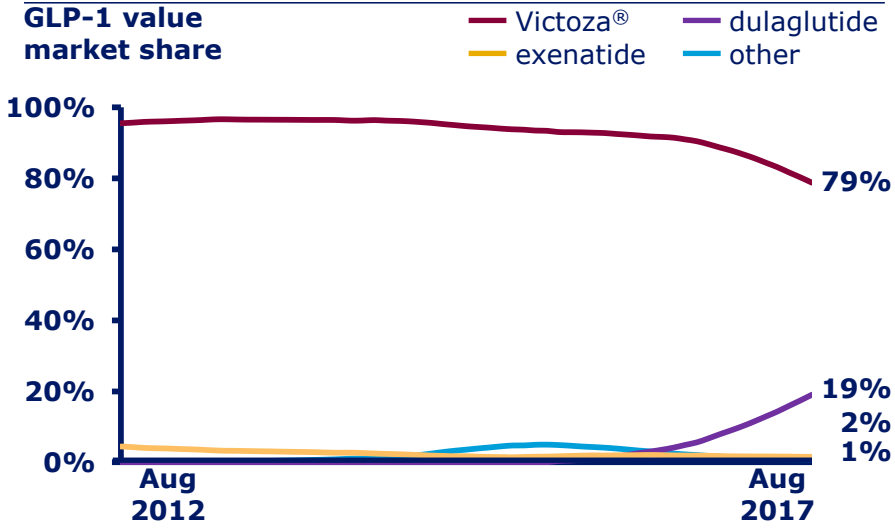
Strong Victoza® market leadership in Latin America

Latin America GLP-1 market



Victoza® value market share in Latin America



¹ CAGR for 5-year period
Source: IMS monthly MAT Aug, 2017 value figures (DKK)

Source: IMS monthly MAT Aug, 2017 value figures (DKK)

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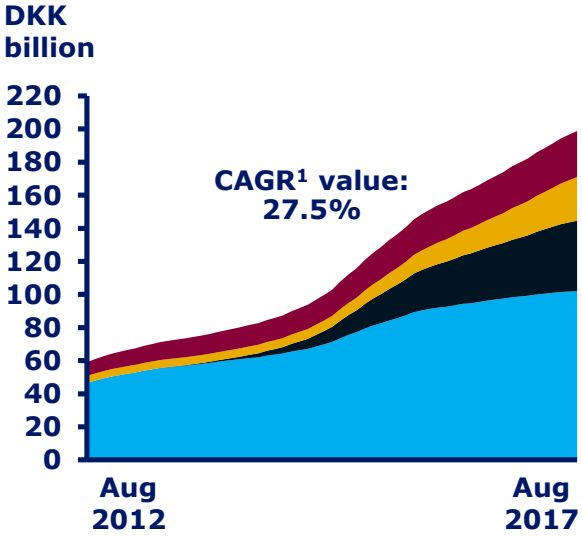
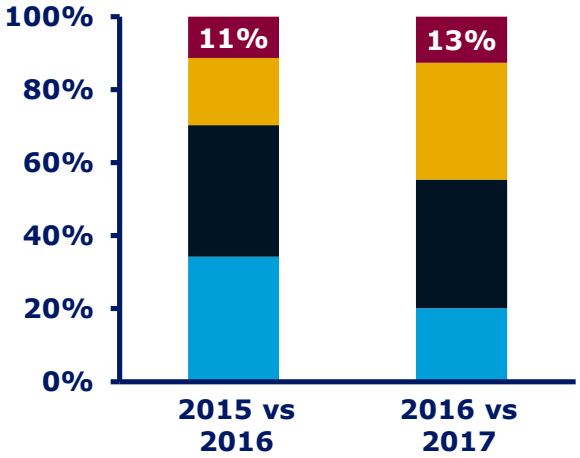
Victoza® maintains a 14% value market share in the GLP-1, SGLT-2 and DPP-IV segment

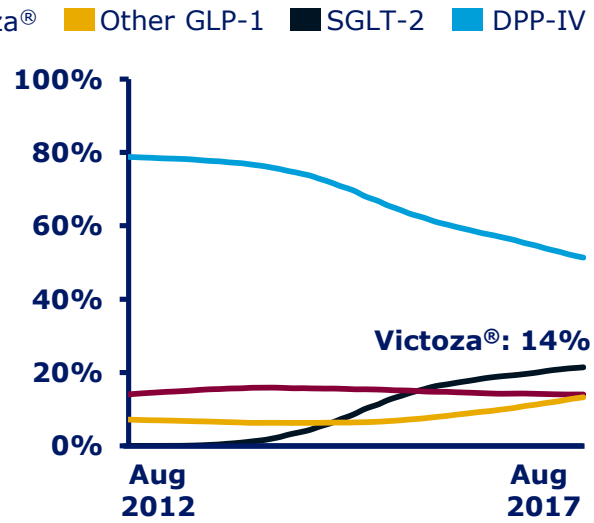
Segment value



Share of segment value growth



Segment value market shares



[1] CAGR for 5-year period
Note: Segment only includes DPP-IV, GLP-1 & SGLT-2. Other oral anti-diabetic agents and insulin excluded
Source: IMS MAT Aug 2017 value figures

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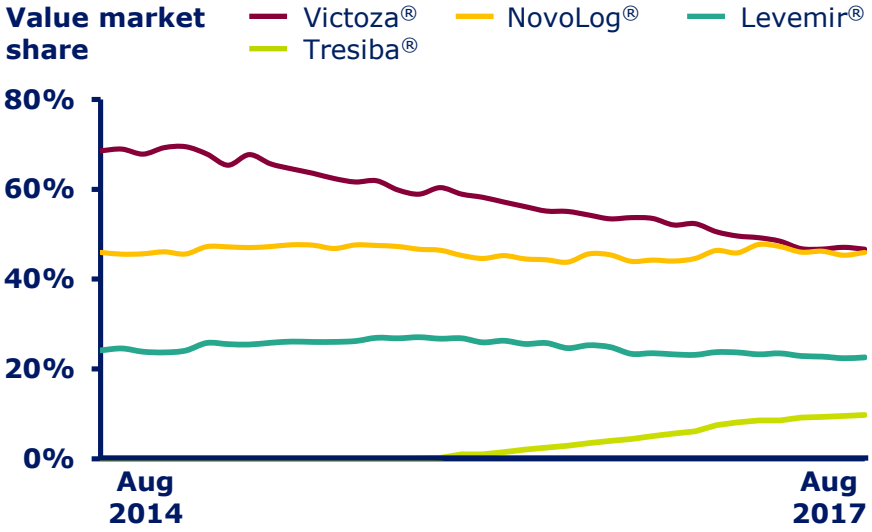
Key Novo Nordisk diabetes care products remain broadly available in the US

Value market shares of key Novo Nordisk products in the US



Source: IMS NSP Aug 2017;
Note: Market shares: NovoLog®: share of rapid acting insulin segment; Levemir®: share of basal insulin segment; Tresiba® share of basal insulin segment; Victoza®: share of GLP-1 segment

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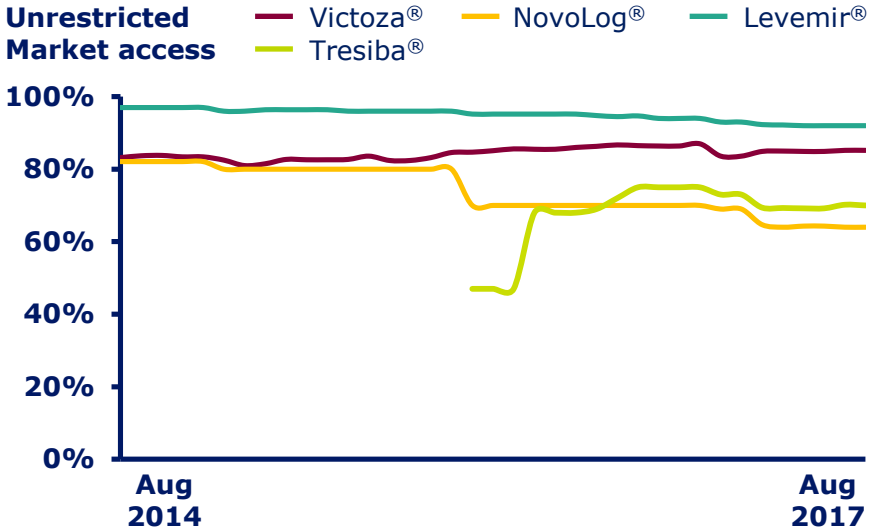
% share of unrestricted market access of key Novo Nordisk products in the US



Source: FingerTip Formulary bridge/ August 2017 Nomenclature and Xponent PlanTrak using week-ending 9/1/2017; only considers bridged volume; excludes cash and mail order data;
Note: Unrestricted access excludes prior authorisation, step edits and other restrictions Levemir® access based on FlexTouch® Pen; NovoLog® access based on FlexPen®; only considers bridged volume; Tresiba® launched in January 2016

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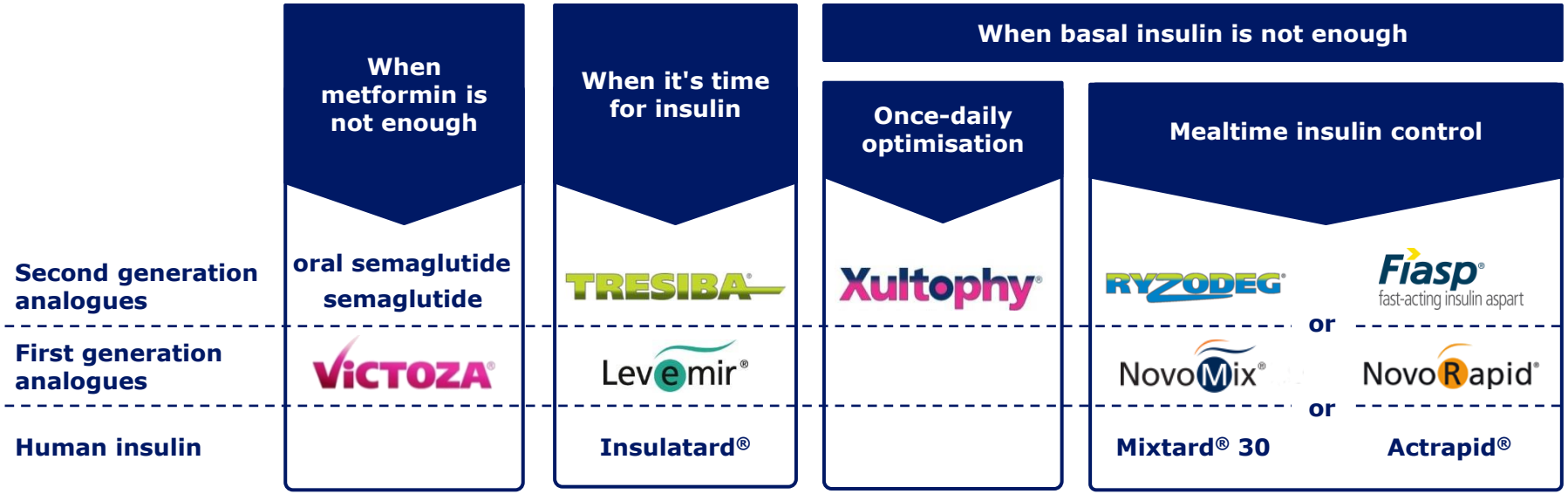
Novo Nordisk current and future product portfolio covers the type 2 diabetes treatment cascade[1]

Overview of current and future products in Novo Nordisk's diabetes portfolio



[1] Pending clinical development programmes and regulatory processes for oral semaglutide and semaglutide

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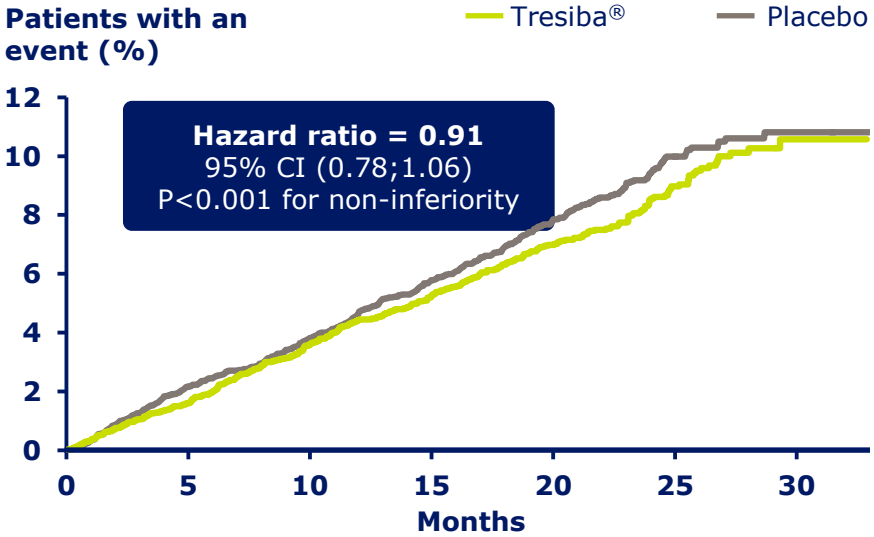
R&D pipeline: Diabetes, obesity and other areas

Product/project	Type	Indication	Status (phase)				
			1	2	3	Filed	Appr.
Semaglutide (NN9535)	Once-weekly GLP-1 analogue	Type 2					
Oral semaglutide (NN9924)	Once-daily oral GLP-1 analogue	Type 2					
Semaglutide QD (NN9535)	Once-daily GLP-1 analogue	Type 2					
Anti-IL-21 and liraglutide (NN9828)	Immuno-metabolic combination of Anti-IL-21 and liraglutide	Type 1					
LAI287 (NN1436)	Long-acting once-weekly basal insulin analogue	Type 1+2					
PI406 (NN1406)	Liver-preferential mealtime insulin	Type 1+2					
PYY diabetes (NN9748)	Peptide YY analogue	Type 1+2					
Semaglutide obesity (NN9536)	Once-daily GLP-1 analogue	Obesity					
G530L (NN9030)	Glucagon analogue	Obesity					
AM833 (NN9838)	Long-acting amylin analogue	Obesity					
GG-co-agonist (NN9277)	Glucagon GLP-1 co-agonist	Obesity					
PYY obesity (NN9747)	Peptide YY analogue	Obesity					
FGF21 Obesity (NN9499)	Fibroblast growth factor 21 analogue	Obesity					
Tri-agonist 1706 (NN9423)	Triple agonist of GLP-1, GIP and glucagon receptors	Obesity					
Semaglutide NASH (NN9931)	Long-acting once-daily GLP-1 analogue	NASH					

Tresiba® demonstrated CV safety and reduced severe hypoglycaemia risk vs insulin glargine U100 in DEVOTE trial

Non-inferiority of Tresiba® vs insulin glargine U100 was confirmed for time to first MACE



CV: Cardiovascular, MACE: major adverse cardiovascular events
Note: Patients 7,637. Key inclusion criteria: Adults above 50 years with type 2 diabetes and established cardiovascular disease, or above 60 years with multiple cardiovascular risk factors; HbA_{1c} ≥7.0% or HbA_{1c} <7.0% and current basal insulin therapy ≥20 units per day; treatment with ≥1 oral or injectable anti-diabetic drug(s). The trial was concluded after 681 events

Key results and next step

- Non-inferiority on CV safety demonstrated with a hazard ratio of 0.91 in favour of Tresiba® relative to insulin glargine U100 with no statistically significant difference between the two treatments
- Compared to insulin glargine U100, Tresiba® demonstrated a superior and statistically significant:
  - 27% reduction in the proportion of subjects with one or more severe hypoglycaemia episodes
  - 40% reduction in the overall rate of severe hypoglycaemia episodes
  - 53% reduction in the rate of nocturnal severe hypoglycaemia episodes

Next steps

- Awaiting regulatory decision by the end of Q1 2018 in the US

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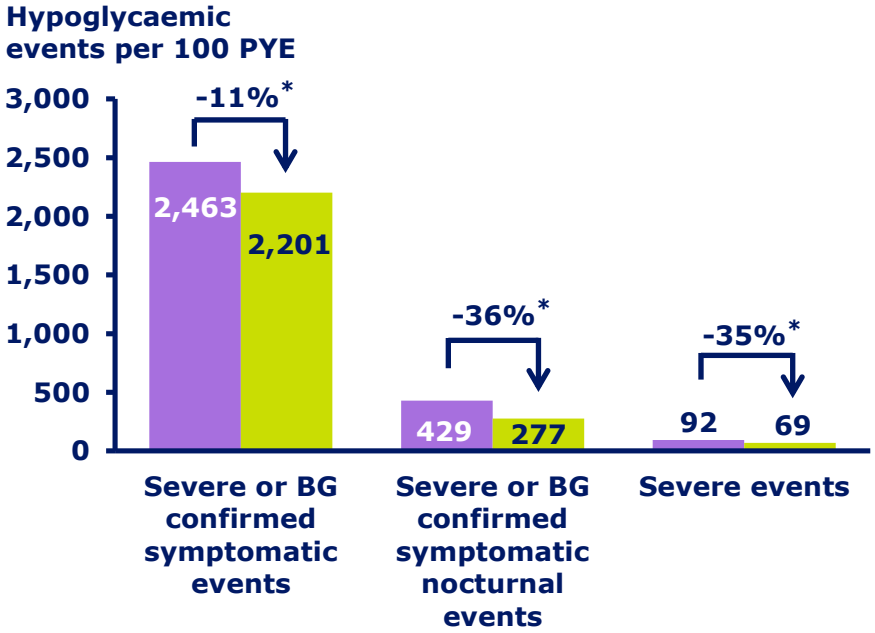
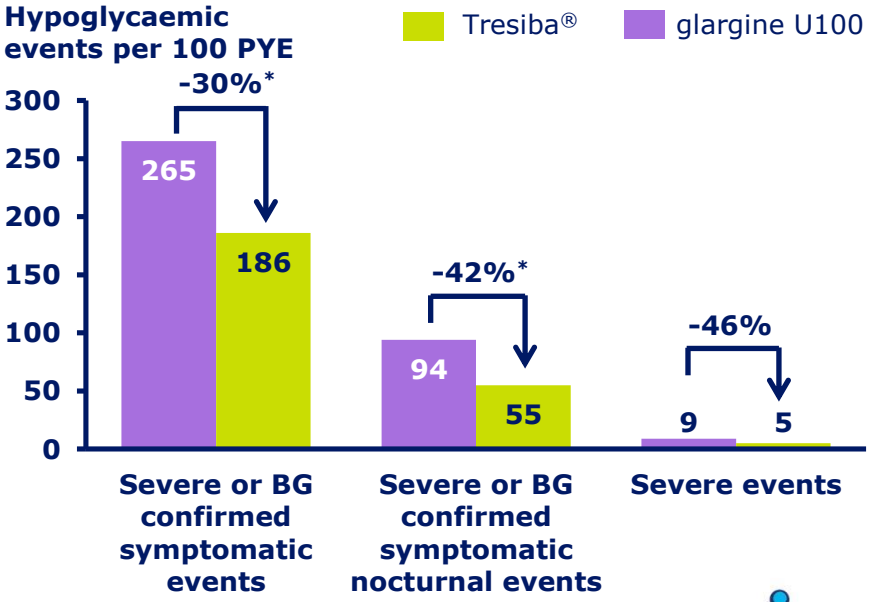
Tresiba® shows lower rate of hypoglycaemia than insulin glargine U100 in SWITCH trials

SWITCH 1 – type 1 diabetes



SWITCH 2 – type 2 diabetes



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Note: The prevalence of hypoglycaemia is measured during the maintenance period; Blood glucose confirmed hypoglycaemia is defined as <56 mg/dL (<3.1 mmol/L); The confirmatory secondary endpoint of proportions of subjects experiencing severe hypoglycaemia during the maintenance period did not reach statistical significance in the SWITCH 2 trial. * Statistically significant; BG: Blood glucose; PYE: Patient years exposed.
Approved in EU. Reviewed in the context of DEVOTE in US.

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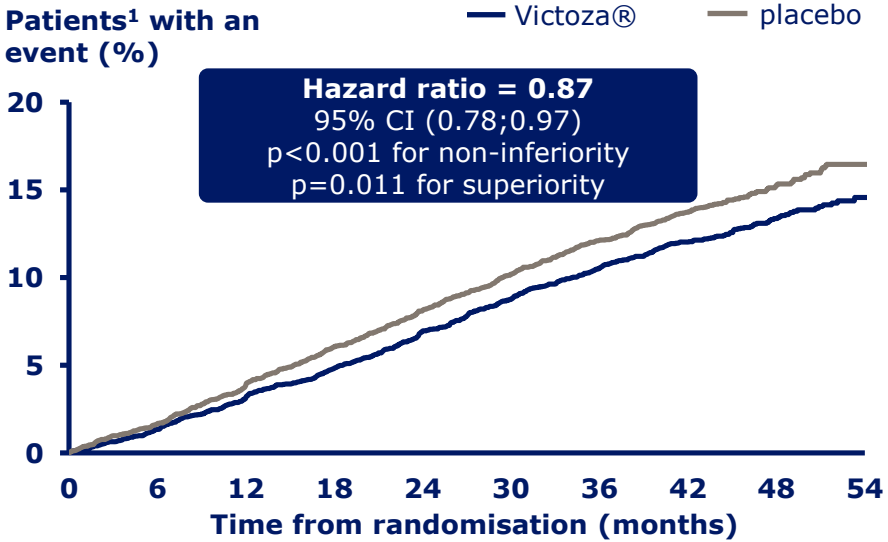
Victoza® statistically significantly reduced the risk of major adverse cardiovascular events in the LEADER trial

13% reduction in 3-point MACE with Victoza® compared with placebo



[1] Inclusion criteria: Adults above 50 years with type 2 diabetes and established CV disease, above 60 years with multiple CV factors, $HbA_{1c} \geq 7.0\%$
MACE: major adverse cardiovascular events; 3-point MACE comprises cardiovascular death, non-fatal myocardial infarction and non-fatal stroke; CI: two-sided confidence interval

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Key results

- Superiority of Victoza® vs placebo was confirmed for time to first MACE in people with type 2 diabetes at high CV risk
- **Victoza® reduced the MACE risk by 13%,** driven by 22% reduction in CV mortality, 12% reduction in non-fatal myocardial infarctions and 11% reduction in non-fatal stroke, compared with placebo when added to standard of care
- Victoza® reduced all-cause mortality by 15% respectively, compared with placebo when added to standard of care
- Victoza® appeared to have a safe and well tolerated profile, generally consistent with previous studies for Victoza®
- Victoza® label updated with the data from the LEADER trial in the US and the EU

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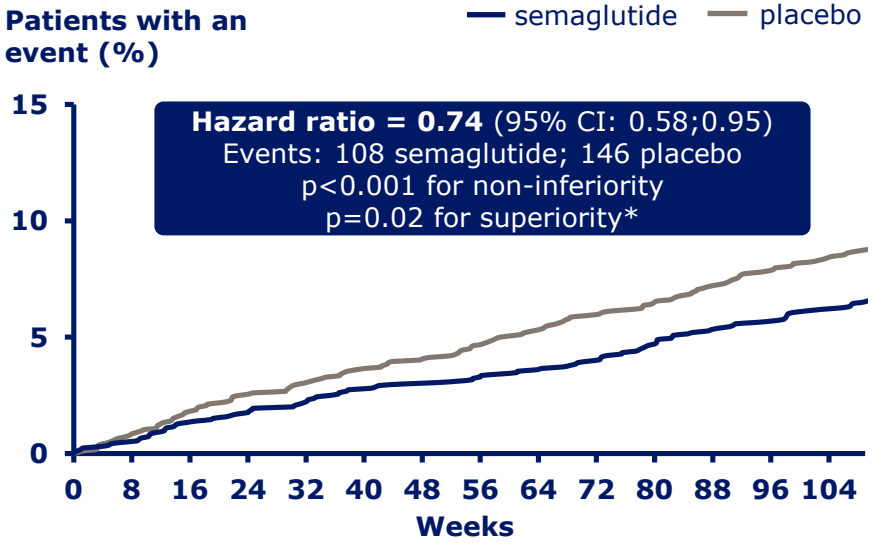
Semaglutide significantly reduced the risk of major cardiovascular events with 26% vs placebo in SUSTAIN 6

Semaglutide demonstrated 26% reduction in composite CV outcome compared with placebo



Note: p-value is two-sided, pooled data reported for both semaglutide and placebo
MACE: Major adverse cardiovascular event; 3-point MACE comprises cardiovascular death, non-fatal myocardial infarction and non-fatal stroke; CI: Confidence interval
* No adjustment for multiple tests

Key results and next step

- Non-inferiority of semaglutide compared to placebo was confirmed for time to first MACE in people with type 2 diabetes
- Semaglutide reduced the risk of MACE by 26% derived from reductions in non-fatal stroke by 39%*, non-fatal MI by 26% and CV death by 2%
- Semaglutide significantly reduced the risk of nephropathy while increasing the risk of retinopathy complications
- **Next step**: Novo Nordisk has submitted an NDA for semaglutide to regulatory authorities and expect regulatory feedback in Q4 2017

* P-value <0.001
NDA: New drug application

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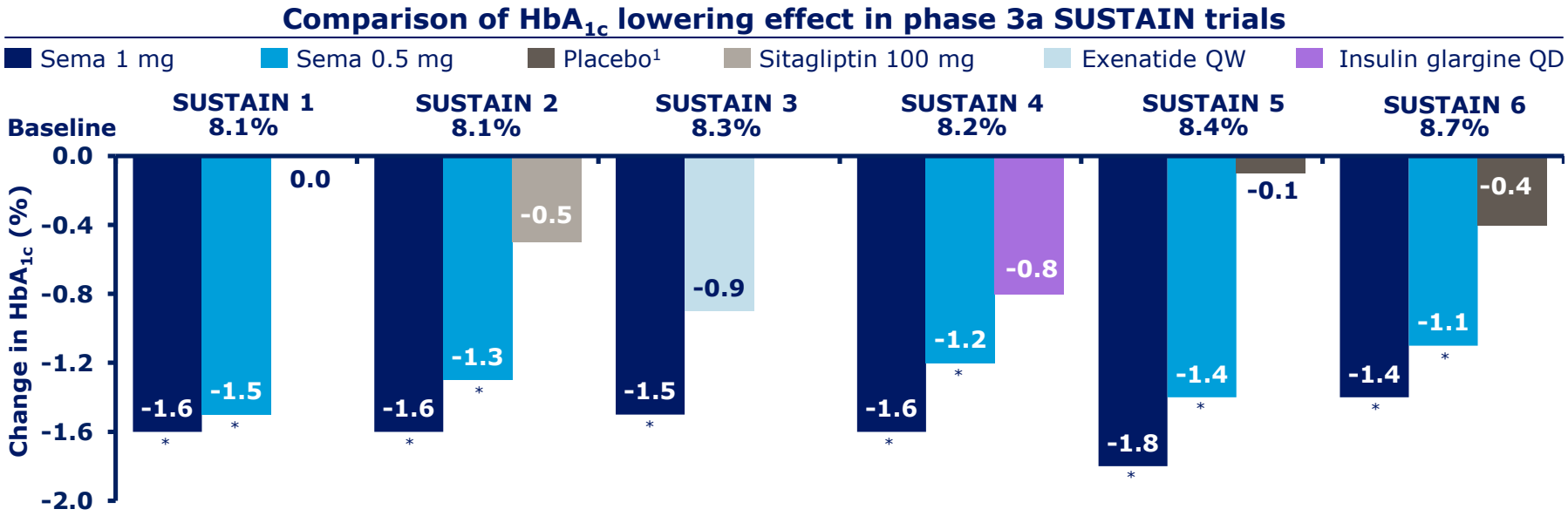
Semaglutide demonstrated a statistically significant reduction in HbA_{1c} vs comparators in the phase 3a trials



*$p < 0.001$; QD: once-daily; QW: once-weekly; sema: semaglutide
[1] SUSTAIN 1: semaglutide once-weekly versus placebo in drug-naïve subjects with type 2 diabetes; SUSTAIN 5: semaglutide once-weekly versus placebo in subjects with type 2 diabetes added on to insulin; SUSTAIN 6: semaglutide once-weekly versus placebo, added-on to their standard-of-care treatment
Source: SUSTAIN 1-5: Ahmann, et al, et al. Presented at the 77th Annual Scientific Sessions of the American Diabetes Association, San Diego, USA. Poster 1080-P; SUSTAIN 6 HbA1c: Marso SP, et al. N Engl J Med 2016;375:1834–44

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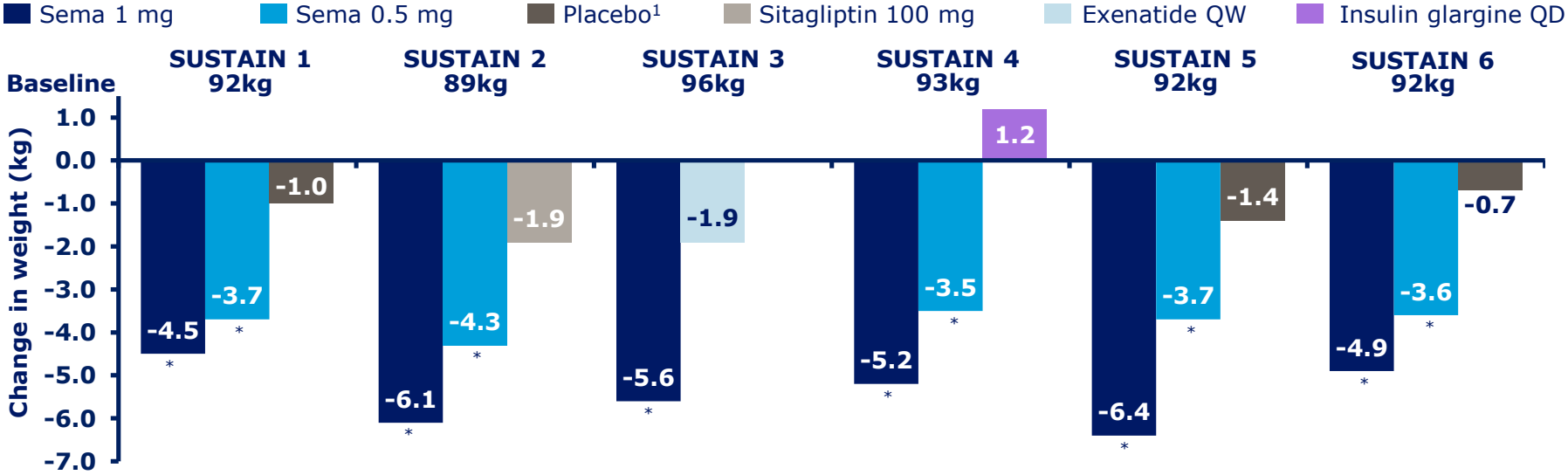
Semaglutide demonstrated a statistically significant reduction in weight vs comparators the the phase 3a trials

Comparison of weight reductions in phase 3a SUSTAIN trials



*$p < 0.001$; QD: once-daily; QW: once-weekly; sema: semaglutide
1 SUSTAIN 1: semaglutide once-weekly versus placebo in drug-naïve subjects with type 2 diabetes; SUSTAIN 5: semaglutide once-weekly versus placebo in subjects with type 2 diabetes added on to insulin; SUSTAIN 6: semaglutide once-weekly versus placebo, added-on to their standard-of-care treatment
Source: SUSTAIN 1-5: Lingvay, et al. Presented at the 77th Annual Scientific Sessions of the American Diabetes Association, San Diego, USA. Oral presentation 243-OR; SUSTAIN 6: Vilsbøll, et al. Presented at the 77th Annual Scientific Sessions of the American Diabetes Association, San Diego, USA. Poster 1125-P

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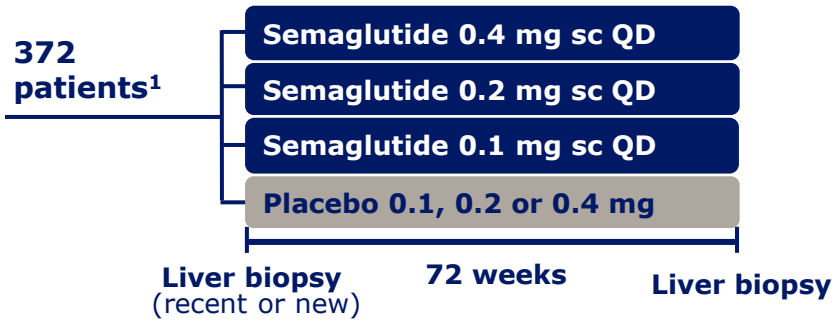
Phase 2 trial with semaglutide for NASH initiated in November 2016

Once-daily semaglutide vs. placebo in patients with NASH trial design



[1] Inclusion criteria: Histological confirmation of NASH, BMI 25.0–45.0 kg/m2, NASH fibrosis stage 2 or 3, Histological NAFLD Activity Score ≥ 4
sc: subcutaneous; QD: Once-daily; NAFLD: non-alcoholic fatty liver disease; NASH: non-alcoholic steatohepatitis.

Phase 2 trial purpose and endpoints

- **Purpose:** To compare the effects of semaglutide subcutanous once-daily versus placebo in achieving histologic resolution of NASH after 72 weeks
- **Trial design:** Randomised and double-blind
- **Primary endpoint:** NASH resolution without worsening in fibrosis after 72 weeks
- **Secondary endpoint:** At least one stage of improvement at week 72, change from baseline in NAFLD activity score, stage of fibrosis and biomarkers
- **Results:** Phase 2 trial expected to be finalised in 2020

Competitive Tresiba® label across all three triad markets

Tresiba® label characteristics in triad markets

	US	Europe	Japan
Profile	• Half-life of 25 hours and duration of action of at least 42 hours • Day to day variability of 20%	• Duration of action beyond 42 hours • Four times lower day-to-day variability vs insulin glargine	• Duration of action up to 26 hours in Japanese patients • Four times lower day-to-day variability vs insulin glargine
Efficacy	• Non-inferior HbA_{1c} reduction • Numerically greater FPG reduction • Numerically lower insulin dose[1]	• Non-inferior HbA_{1c} reduction • Numerically greater FPG reduction	• Non-inferior HbA_{1c} reduction • Numerically greater FPG reduction
Safety	• Overall safety consistent with insulin • Hypoglycaemia rates for Tresiba®, but not comparator	• Overall safety consistent with insulin • Lower rate of overall and nocturnal hypoglycaemia	• Overall safety consistent with insulin • Lower rate of nocturnal hypoglycaemia in Asian subjects
Convenience	• Injection any time of day • Up to 80 and 160 units per injection	• Adjusting injection time when needed • Up to 80 and 160 units per injection	• In case of missed dose take as soon as possible

[1] Observed in majority of the trials

Competitive labels for Xultophy® in both the US and EU

	US – Xultophy® 100/3.6	Europe - Xultophy®
Indication	• Adjunct to diet and exercise to improve glycaemic control in adults with type 2 diabetes mellitus inadequately controlled on basal insulin (less than 50 units daily) or liraglutide (less than or equal to 1.8 mg daily)	• Xultophy® is indicated for the treatment of adults with type 2 diabetes in combination with oral glucose-lowering agents
Profile	• **A combination** of insulin degludec and liraglutide • Administered as units: Each Xultophy® 100/3.6 dosage unit contains 1 unit of insulin degludec and 0.036 mg of liraglutide	• **Fixed combination** product consisting of **insulin degludec** and **liraglutide.** • Administered as dose steps: 1 dose step contains 1 unit of insulin degludec and 0.036 mg of liraglutide
Efficacy	• **HbA1c reduction of 1.7%** from baseline to end of trial with an estimated treatment difference of -0.5 vs Insulin glargine U100 • **Weight gain** when converting from liraglutide of 2 kg	• **On average HbA_{1c} reduction of 1.9%** from baseline to end of trial confirmed to be **superior against all comparators**[1] • On average **2.7 kg weight loss** from baseline in patients inadequately controlled on basal insulin
Convenience	• **Once-daily administration at same time each day** with or without food • The pen delivers doses from 10 to 50 units with each injection	• **Once-daily administration at any time of the day**, preferably at the same time of the day • The pre-filled pen can provide from 1 up to 50 dose steps in one injection
Safety	• Hypoglycaemia is the most common adverse reaction • **Gastrointestinal adverse reactions may occur more frequently** at the beginning of therapy and diminish within a few days or weeks on continued treatment	• **Lower rates of confirmed hypoglycaemia** than with insulin degludec in patients on metformin +/- pioglitazone • **Fewer experienced gastrointestinal side effects** than patients treated with liraglutide

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Source: DUAL I (NN9068-3697), DUAL II (NN9068-3912), DUAL III (NN9068-3851), DUAL IV (NN9068-3952), DUAL V (NN9068-4119)

[1] $p<0.01$

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Competitive labels for Fiasp® in both the US and EU

	US – Fiasp®	Europe - Fiasp®
Dosing	• Postmeal dosing • Method of administration (SC, IV)	• Postmeal dosing • Method of administration (SC, CSII (pump), IV)
Safety	• Hypoglycaemia may occur earlier compared to other mealtime insulins • AEs – compared to comparator	• Hypoglycaemia may occur earlier compared to other mealtime insulins • AEs – compared to comparator
Special Population	• Special population • Elderly with no limitations	• Special population • Limited in very elderly > 75 years

PK/PD	• No comparison to NovoLog®
	• No information about:
	  • Faster absorption
	  • Onset of appearance
	  • Onset of action
		• Faster initial absorption
		• Onset of appearance twice as fast
		• Twice as much insulin available during first 30 min
		• Onset of action was 5 minutes earlier

Efficacy	• **onset 1 – T1DM – Basal/Bolus.** HBA1c with confidence interval. No PPG data • **onset 2 – T2DM – Basal/Bolus**. HBA1c with confidence interval. No PPG data • **onset 3 – T2DM – Basal/Bolus vs Basal.** HbA1c	• **onset 1 – T1DM – Basal/Bolus.** HbA1c statistical significant. 1 and 2 hr PPG increments • **onset 2 – T2DM – Basal/Bolus**. HbA1c 1 and 2 hr PPG increment

Xultophy® has documented strong efficacy across the treatment cascade

Xultophy® key clinical results

	DUAL I Add-on to metformin ± Pio n = 833	**DUAL II** Add-on to metformin ± basal insulin n = 199	**DUAL III** Switch from GLP-1 n = 292	**DUAL IV** Add-on to SU ± metformin n = 289	**DUAL V** Switch from insulin glargine n = 557	**DUAL VI**[1] Once vs. twice weekly titration N = 420	**DUAL VII** IDegLira versus basal-bolus n = 506
Mean trial start HbA_{1c} (%)	8.3	8.7	7.8	7.9	8.4	8.1	8.2
Mean trial end HbA_{1c} (%)	6.4	6.9	6.4	6.4	6.6	6.0	6.7
HbA_{1c} change (%)	-1.9	-1.9	-1.3	-1.45	-1.8	-2.0	-1.5
% to target < 7% (%)	80.6	60.3	75.3	79.2	71.6	89.5	66.0
% to target < 6.5% (%)	69.7	45.2	63.0	64.0	55.4	85.0	49.6
Confirmed hypo (Episodes per 100 PYE)	180.2	153.4	282	351.7	343.3	N/A**	N/A***
Weight change (kg)	-0.5	-2.7	+2.0	+0.5	-1.4	-2.0	-0.9

Note: Typical confirmed hypoglycaemia event rates for treatment with basal insulin are 142-369 episodes per 100 PYE (based on insulin glargine event rates from trials NN1250-3586, 3579 and 3672) where the FPG target and hypoglycaemia definition is similar to the DUAL trials

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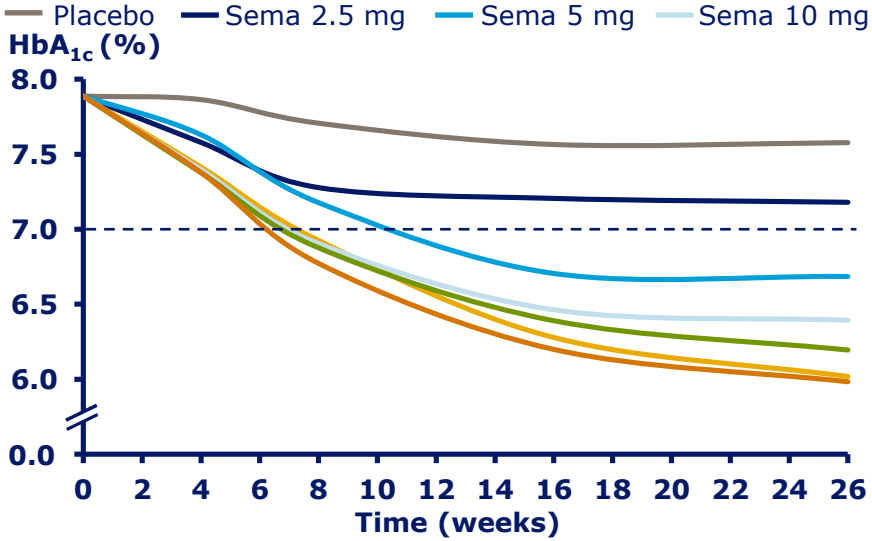
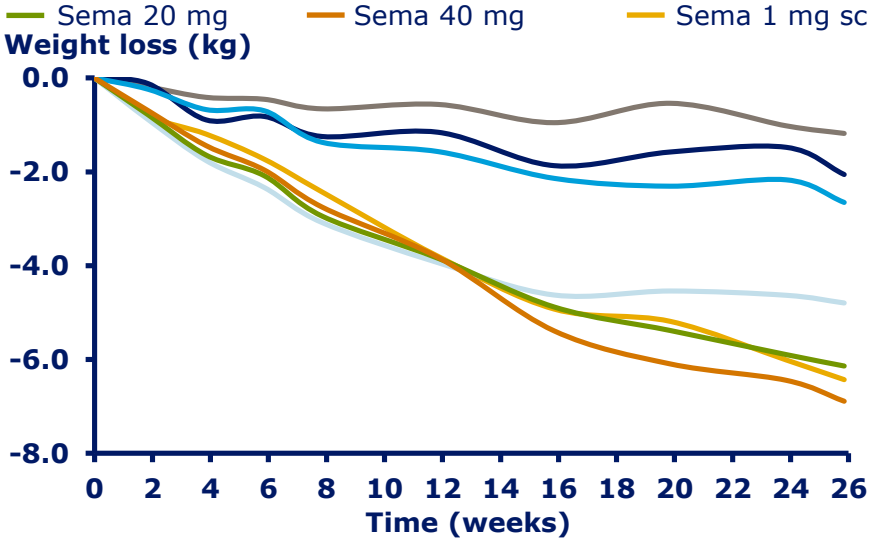
[1] DUAL VI: comparison of IDegLira once weekly vs. twice weekly titration, numbers in table are for IDegLira twice weekly, as this is the titration algorithm which has been applied in all the other DUAL trials.

Oral semaglutide reduced HbA_{1c} and body weight in a 26-week phase 2 trial in type 2 diabetes

HbA_{1c} reduction from a mean baseline of 7.9%



Weight loss from a mean base line of 92 kg



Inclusion criteria: Type 2 diabetes; 7.0% ≤ HbA_{1c} ≤ 9.5%; treatment with diet and exercise with or without metformin; sc: subcutaneous; sema: semaglutide

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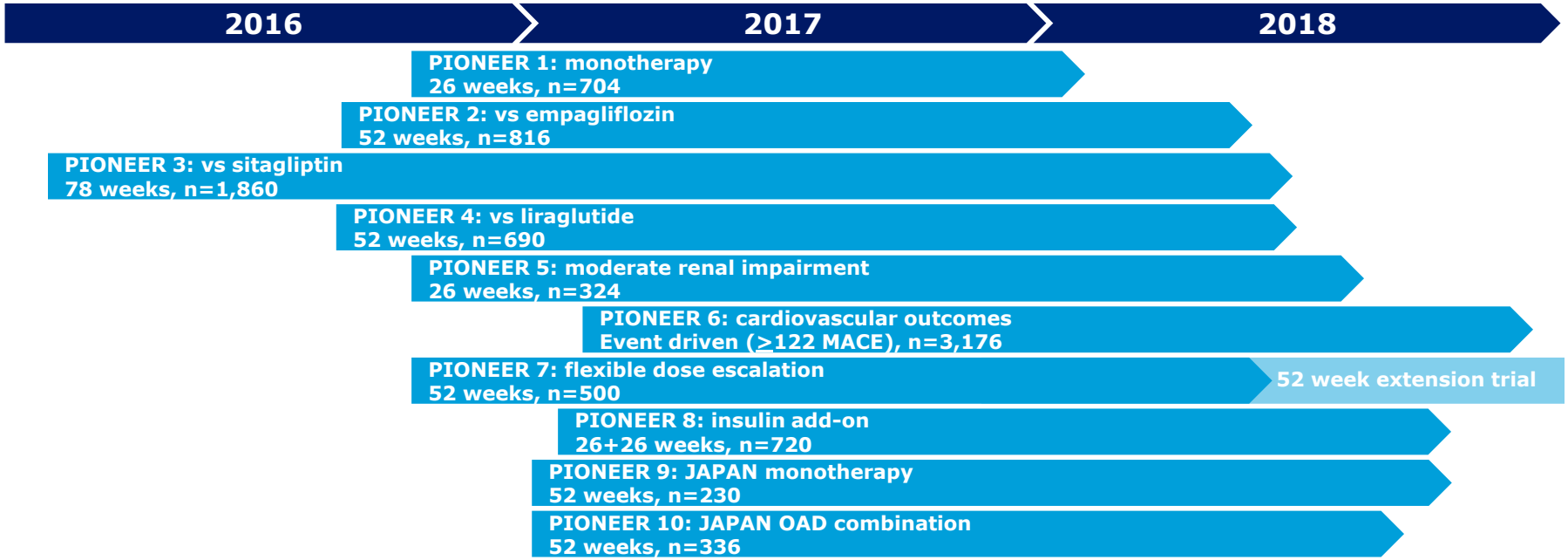
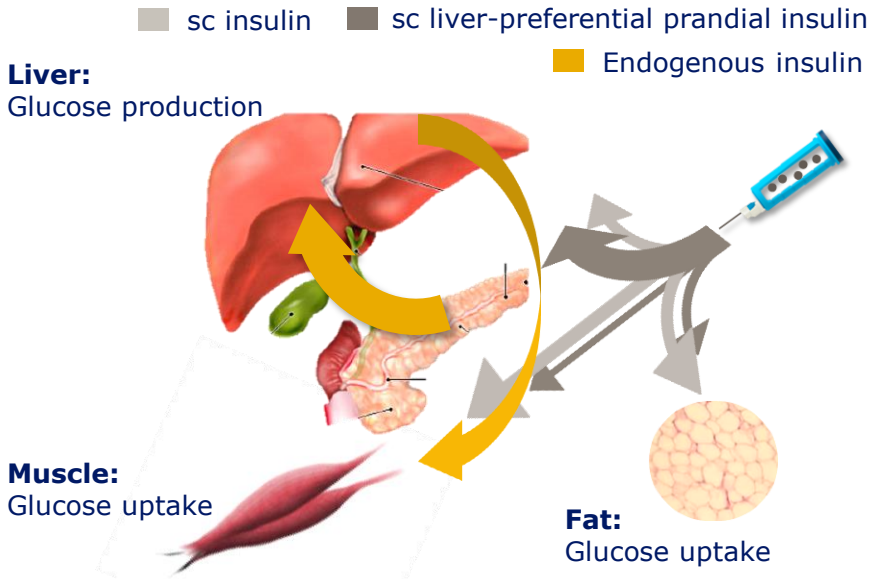
PIONEER trials for oral semaglutide



Note: Preliminary estimated timing of trials from first patient first visit (FPFV) to last patient last visit (LPLV), n = approximate number of randomised people; MACE: Major Cardiovascular Events; OAD: oral anti-diabetic

Liver-preferential meal time insulin analogue has potential to reduce hypoglycaemia and weight gain

The liver is important for insulin action



Note: Mode of action for fast-acting insulin aspart
sc: subcutaneous

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Rationale and expected benefits of physiologically distributed insulin

Rationale

- Elevated hepatic glucose release drives overall higher PPG in people with type 2 diabetes compared to healthy individuals[1]
- >50% of endogenous insulin secretion is cleared by the liver
- Insulinisation of peripheral tissues with current insulin analogues is higher than for endogenous insulin

Potential benefits

- Mimics physiology of insulin distribution secreted from pancreas
- Less hypoglycaemia
- Less weight gain

Next steps

- Results for phase 1 trial with liver-preferential mealtime insulin (NN1406) expected completion in Q4 2017

PPG: post prandial glucose
[1] Woerle HJ et al. *Am J Physiol Endocrinol Metab* 2006;290:E67–E77

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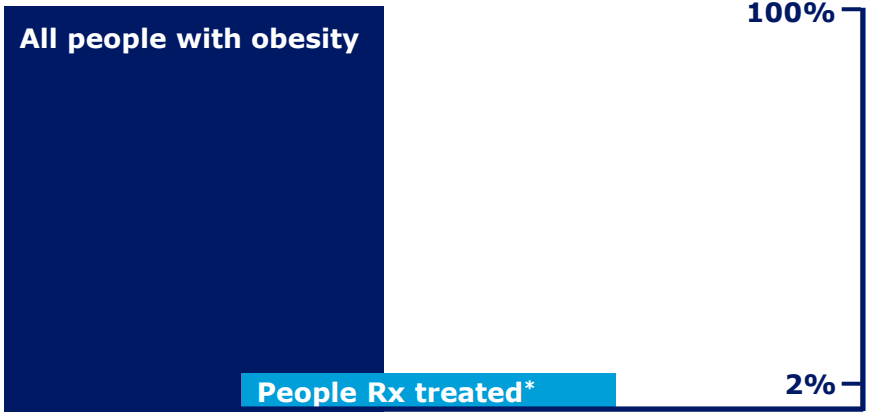
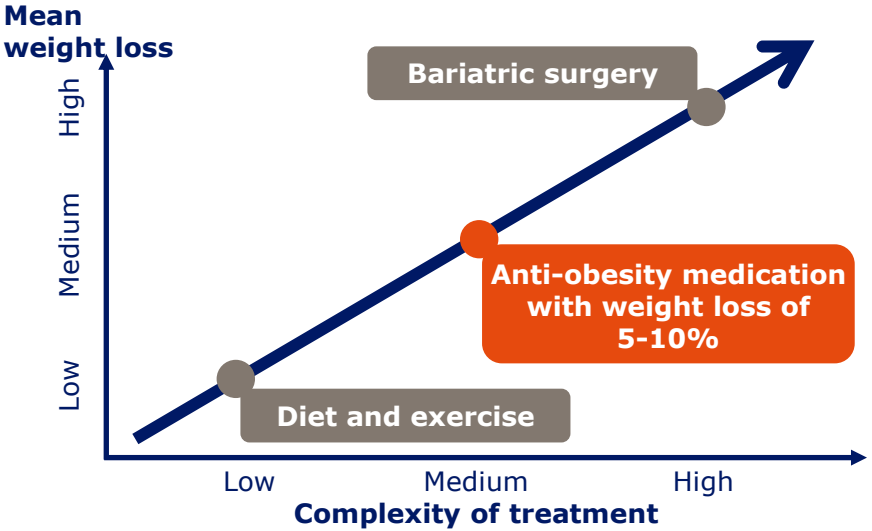
Significant unmet need in obesity management

Insufficient treatment options



Significant gaps in obesity treatment



Source: Diagnosis rate, Practice Fusion March 2014 & Treatment rate, *Understanding the Treatment Dynamics of the Obesity Market*, IMS Database (NPA), August 2014
* Rx=prescription, ie treated with anti-obesity medication (AOM)

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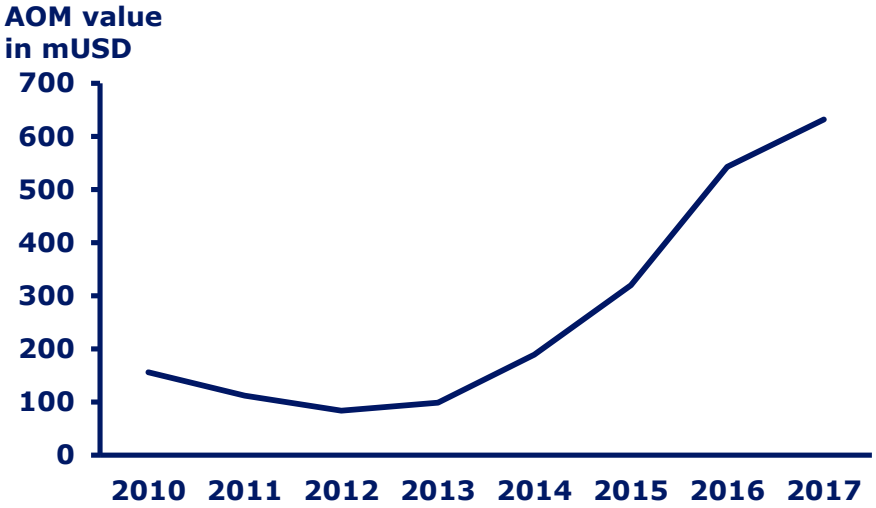
Small but growing market for anti-obesity medication in the US

Total anti-obesity market value



Source: IMS NSP MAT monthly, Aug 2017

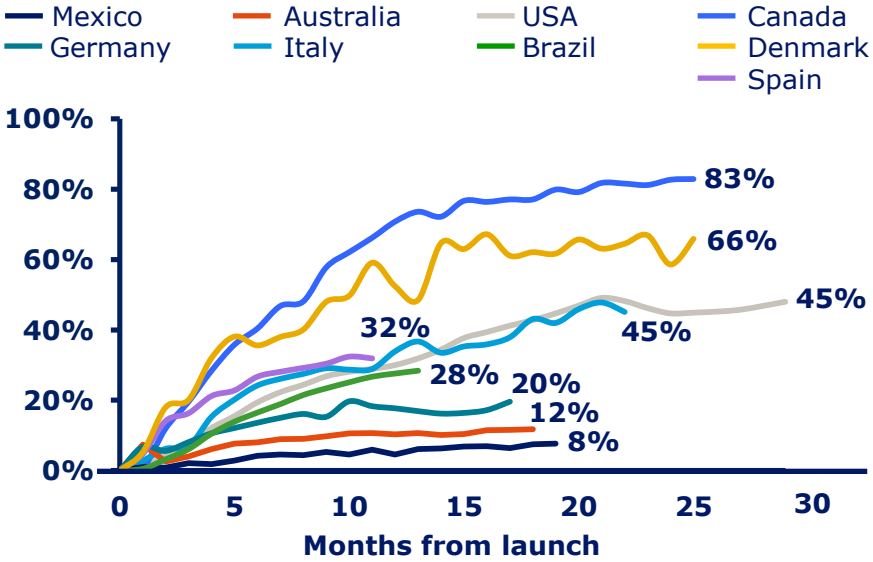
The US obesity burden

- Cost of obesity to health care systems of USD 147 billion annually with continued growth[1]
- Around 35% of the US adult population (over 20 years) have obesity (BMI>30)[2]
- Only around 30% of all obesity cases in the US were diagnosed in 2009[3]
- In 2010, only 3 million people, i.e. around 3% of the US adult population with obesity were treated with anti-obesity medication[4]

[1] Finkelstein et al. Health Affairs 28, no. 5 (2009): w822-831
[2] Flegal, KM. JAMA. 2012;307(5): Doi:10.1001/jama.2012.39
[3] Ma et al. Obesity (Silver Spring) 2009;17:1077–85
[4] Obesity. Decision resources, Inc. December 2010:38

Continued global roll-out of Saxenda®

Saxenda® value share of anti-obesity medications in selected countries



Source: IMS, Aug 2017
Note: The market for anti-obesity medication varies significantly in size between countries

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The global obesity potential

Saxenda® and obesity pipeline

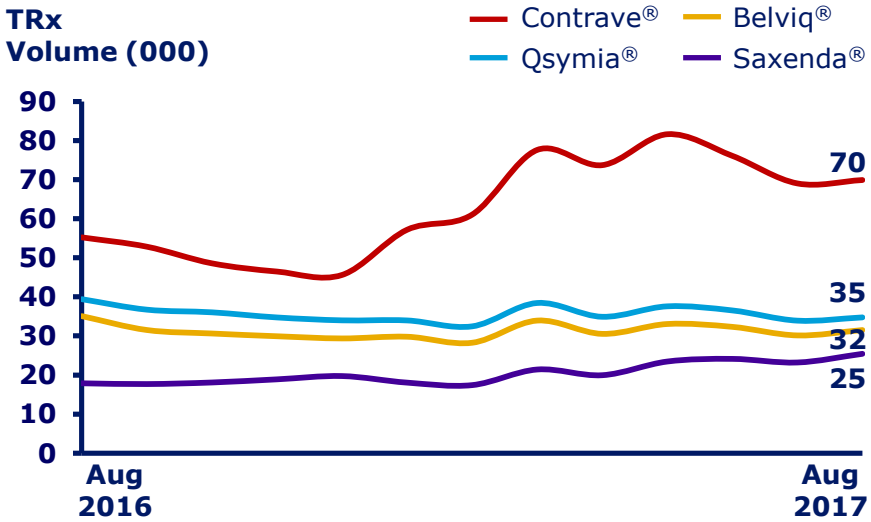
- Saxenda® is now launched in 23 markets
- LEADER data reflected in the Saxenda® EU label
- Novo Nordisk obesity pipeline includes semaglutide for obesity in phase 2 and six phase 1 projects

Key market development initiatives

- Educating HCPs in obesity management
- Driving patient engagement via Saxenda® care
- Driving recognition of obesity as a chronic disease
- Improving market access to obesity care

Steady prescription uptake for Saxenda® in the US

Prescription volume uptake of anti-obesity medications (AOM) recently launched in the US



Source: IMS NPA TRx, monthly, August 2017

Key observations

- Saxenda® is the leader in value market share at ~53% among the branded AOMs in the US
- While competitors' promotional efforts have been periodic, Novo Nordisk remains confident in the long-term obesity market growth and the evolving Novo Nordisk obesity portfolio
- In the US, two out of five of ~95 million adults with obesity have insurance covering obesity medication

Source: IMS monthly NSP, August 2017

Saxenda® targeted at patients with BMI ≥35 and weight-related comorbidities

Saxenda® market approach	Saxenda® launch execution
Clear patient **segmentation**	Focus on patients with **BMI ≥35** with weight-related **comorbidities**
Focused prescriber **targeting**	Focus on current prescribers of **anti-obesity medication** and **GLP-1**
Clear product **value proposition**	Strengthened by **3-year clinical data**
Focus on engaging **prioritised** payers and employers	Formulary coverage emerging with **two out of five** of ~95 million with obesity

Aspiration

Build the market

BMI: body mass index

[1] Potential lives covered, based on employer opt-ins

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Competitive label for Saxenda®

	US – Saxenda®	Europe - Saxenda®
Indication	• Approved for chronic weight mgmt. in individuals with a BMI≥30, or ≥27 in the presence of at least one weight related comorbidity[1] • The treatment should be discontinued after 16 weeks of treatment if the patient has not lost at least 4% of baseline body weight	• Approved for weight management in individuals with a BMI≥30, or ≥27 in the presence of at least one weight related comorbidity[1] • The treatment should be discontinued after 12 weeks (3 mg/day) if the patient has not lost at least 5% of the initial body weight
Profile	• GLP-1 receptor agonist – a physiological regulator of appetite and calorie intake • Saxenda® is the first and only GLP-1 receptor agonist approved for weight management	• GLP-1 receptor agonist – a physiological regulator of appetite and calorie intake • Saxenda® is the first and only GLP-1 receptor agonist approved for weight management
Efficacy	• 9 in 10 lose weight and 1 in 3 people lose more than 10% of their body weight[2] • Average weight loss of 9.2% in completers at one year[2] • Sustained weight loss at 3 years	• 9 in 10 lose weight and 1 in 3 people lose more than 10% of their body weight[2] • Average weight loss of 9.2% in completers at one year[2] • Sustained weight loss at 3 years
Convenience	• Once daily 3 mg subcutaneous injection, at any time of the day and irrespective of meals	• Once daily 3 mg subcutaneous injection preferably at the same time every day
Safety	• **Boxed warning** on thyroid C-cell tumours • **Precautions** on acute pancreatitis, acute gallbladder disease, serious hypoglycaemia[3], heart rate increase, renal impairment, hypersensitivity and suicidal ideation	• **Boxed warning** on thyroid C-cell tumours • **Precautions** on acute pancreatitis, acute gallbladder disease, serious hypoglycaemia[3], heart rate increase, renal impairment, hypersensitivity

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[1] Examples include hypertension, type 2 diabetes and dyslipidemia. In Europe the CHMP has also included pre-diabetes and obstructive sleep apnoea as part of its definition of weight-related comorbidities. [2] Saxenda® US Package Information. [3] When used with an insulin secretagogue.

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Novel obesity compounds in phase 1 development may have complimentary modes of action

Key features of compounds in phase 1 development for obesity

Compound	G530S – Glucagon analogue	NN9838 – Amylin analogue	NN9747 – PYY analogue	NN9499 – FGF21 analogue	NN9277 – GG-co-agonist	NN9423 – Tri-agonist 1706
Admin	Once-daily sc injection in combination with liraglutide	Once-daily sc injection	Once-daily sc injection	Once-daily sc injection	Once-weekly sc injection	Once-daily sc injection
Mode of action	Stimulation of energy expenditure and satiety	Reduced food intake, primarily to be mediated by amylin receptors	Reduced food intake via selective stimulation of the Y2 receptor	FGF21-induced weight loss presumed to be driven by energy expenditure	Stimulation of energy expenditure and satiety	Stimulation of energy expenditure and satiety
Phase 1 trial status	Expected completion 2017	Expected completion 2018	Expected completion 2019	Expected completion 2019	Expected completion 2019	Expected completion 2019

SC: Subcutaneous

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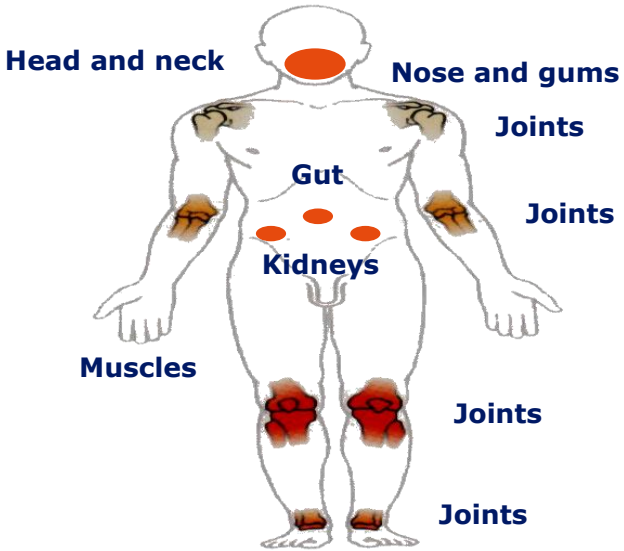
Biopharmaceuticals

Haemophilia: Location of bleedings and the consequences

Locations

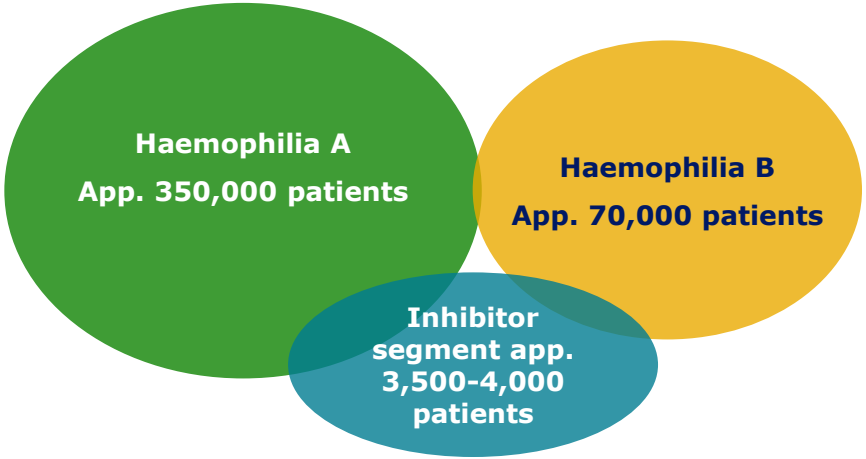


Consequences of bleedings

- Bleeding in the joint space causes a strong inflammatory reaction which predisposes to further bleeding
- Inadequate or delayed treatment of repeated joint bleeds results in a "target joint"
- The joint is tense, swollen and extremely painful and the mobility is restricted
- Eventually the cartilage erodes completely and permanent joint damage (arthropathy) occurs
- Treatment of arthropathy is orthopaedic surgery

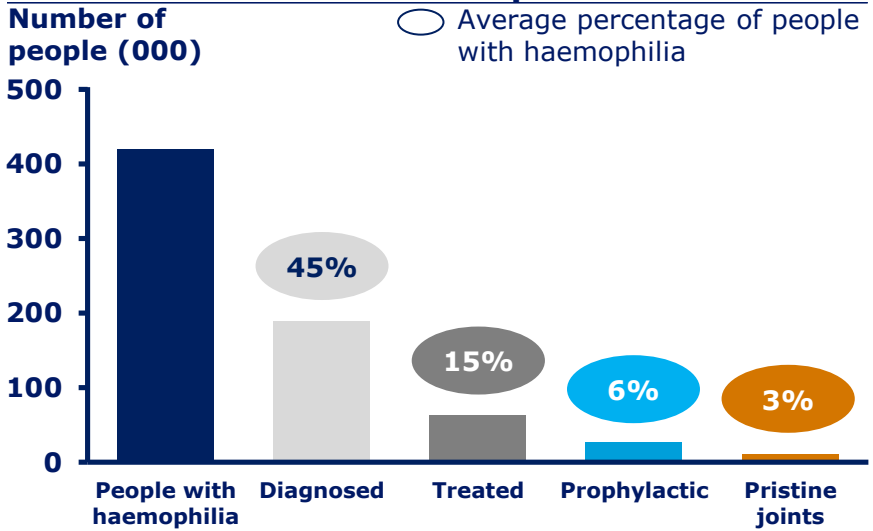
Haemophilia is a rare disease with severe unmet medical needs

Number of people with haemophilia A and B and haemophilia with inhibitors



Note: The inhibitor segment represents people with haemophilia and high titre inhibitors to their normal replacement treatment
Source: Estimates based on prevalence data in literature (Stonebraker JS et al. Haemophilia. 2010; 16: 20-32), World Federation of Haemophilia – Annual Global Survey 2012, UDC database in the US

Low diagnosis and treatment rates within haemophilia



Source: World Federation of Haemophilia – Annual Global Survey 2016

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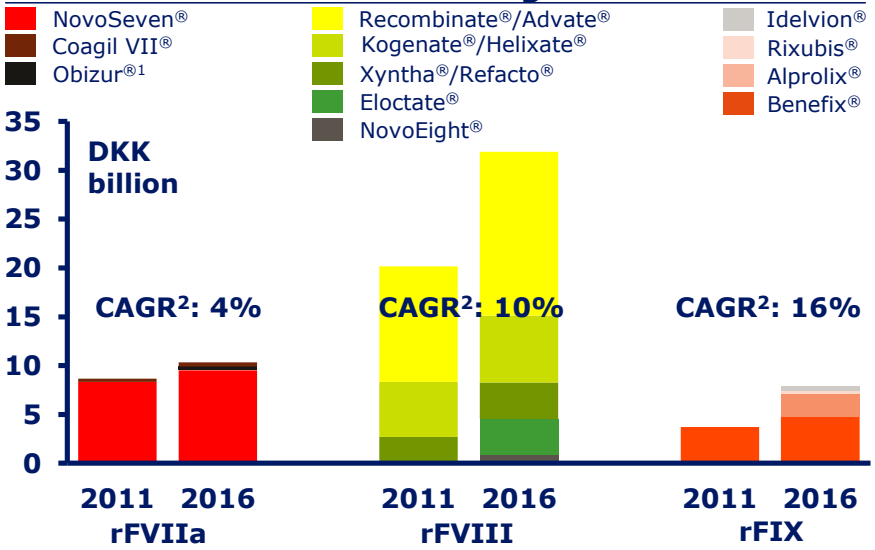
Global haemophilia market is growing by high-single digit

Sales of recombinant coagulation factors



[1] Obizur® only indicated for acquired haemophilia
[2] CAGR for 5-year period

Strategic positioning of Novo Nordisk's haemophilia portfolio

Novo Nordisk compound	Status	Strategic position
NovoSeven®	Launched	Maintain market leadership
NovoEight®	Launched	Establish presence in a competitive market place
N8-GP	Phase 3[3]	Contribute to market conversion
Refixia®/ REBINYN®	Approved[4]	Contribute to new treatment paradigm
NovoThirteen®	Launched	Launch first recombinant product

[3] Submission of N8-GP expected 2018 pending expansion of production capacity
[4] Refixia® is the brand name for N9-GP in the EU, and REBINYN® is the brand name in the US

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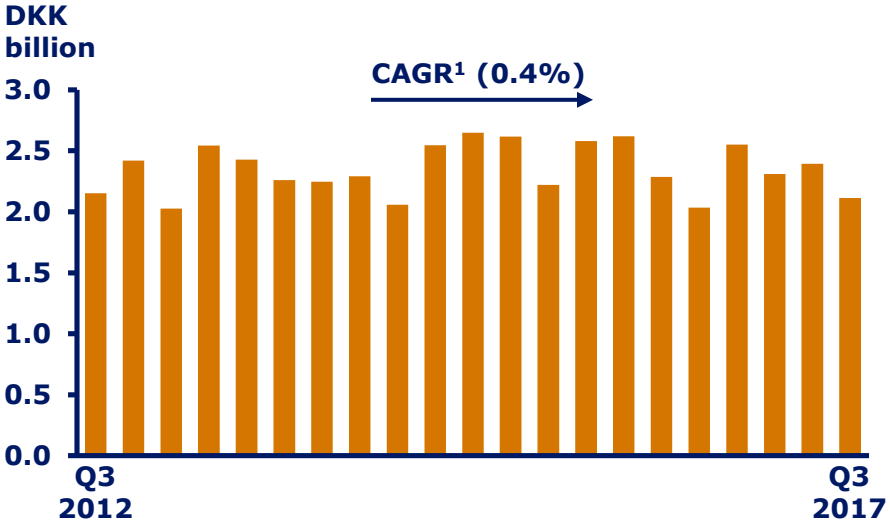
NovoSeven® – a unique biologic for the treatment of rare bleeding disorders

NovoSeven® reported quarterly sales



[1] CAGR for 5-year period

Key NovoSeven® properties

- **Product characteristics:** powder and solvent for solution for intravenous injection, available in multiple doses, stable at room temperature
- **MixPro®** administration system launched in 2013
- **Indications:** treatment of spontaneous and surgical bleedings in:
  - Haemophilia A or B patients with inhibitors
  - Acquired haemophilia
  - Congenital FVII deficiency
  - Glanzmann's thrombasthenia[2]

[2] Only indicated in Europe and the US

NovoEight® is launched in the US, Europe and Japan for the treatment of people with haemophilia A

Example from NovoEight® promotional campaign[1]

[1] Picture is not intended for promotional purposes

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NovoEight® properties and launch performance

Indications:

- Treatment and prophylaxis of bleeding in patients with congenital factor VIII deficiency for all age groups[2]

Key product characteristics:

- Reliability: No inhibitor development in PTPs in one of the largest pivotal trial programmes of any approved rFVIII (n=213)[2,3]
- Purity and safety: First rFVIII to use a 20nm filter in its purification process[4]
- Portability: Room temperature stability with storage at 30 degrees celsius[2]

Launch status:

- NovoEight® is available in the US, EU, Japan
- Launched in 27 countries

[2] NovoEight® Summary of Product Characteristics. [3] Iorio A et al., Blood 2012; 120(4): 720 – 727. [4] NovoEight® Prescribing Information
PTP: Previously treated patient

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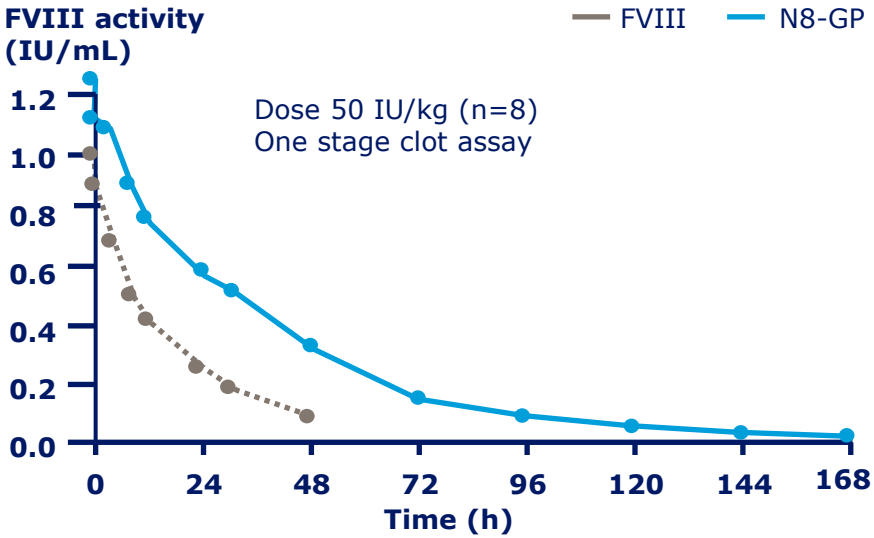
R&D pipeline: Haemophilia and growth disorders

Product/project	Type	Indication	Status (phase)				
			1	2	3	Filed	Appr.
N8-GP (NN7088)[1]	GlycoPEGylated long-acting rFVIII	Haemophilia A					
Concizumab (NN7415)[2]	Monoclonal anti-TFPI	Haemophilia A, B and with inhibitors					
Somapacitan (NN8640)[3]	Once-weekly human growth hormone	Growth disorder					
Sc N8-GP (NN7170)	Sc GlycoPEGylated long-acting rFVIII	Haemophilia A					

[1] Submission of N8-GP expected 2018 pending expansion of production capacity
[2] Phase 1b trial completed
[3] Phase 3 completed in Adult Growth Hormone Deficiency (AGHD)
Sc: Subcutaneous

N8-GP administered every fourth day reduces median bleeding rate to 1.3 episode per year in phase 3 trial

N8-GP phase 1 pharmacokinetics



Source: Tiede et al. J Thromb Haemot. 2013;11:670-675

Pathfinder 2 headline results (phase 3)

- PK documented single dose half-life of 18.4 hours and mean trough level before next dose of 3%
- Patients on every fourth day prophylaxis (50 IU/kg) had a median ABR of 1.3
- 95% of mild to moderate bleeds managed with 1-2 doses
- N8-GP appeared to have a safe and well tolerated profile
- One patient developed inhibitors, as expected in a population of previously treated haemophilia A patients

Pathfinder 2 extension trial results

- 55 patients with ≤2 bleeds during 6 months in the main phase were randomised 2:1 to either once-weekly (75 IU/kg) or every fourth day (50 IU/kg) treatment for 180 days[1]
- Patients in both treatment arms had a median ABR of 0

Next steps

- Expansion of production capacity; US/EU submission 2018

PK: Pharmacokinetic; ABR: Annualised bleeding rate; IU: International unit
[1] Prophylaxis 75 IU/kg every 7 days (n=38) or prophylaxis 50 IU/kg every 4 days (n=17)

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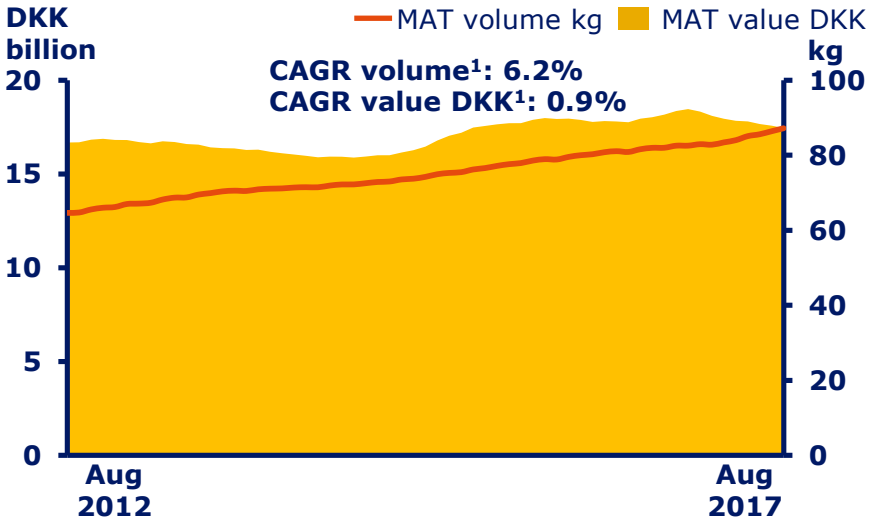
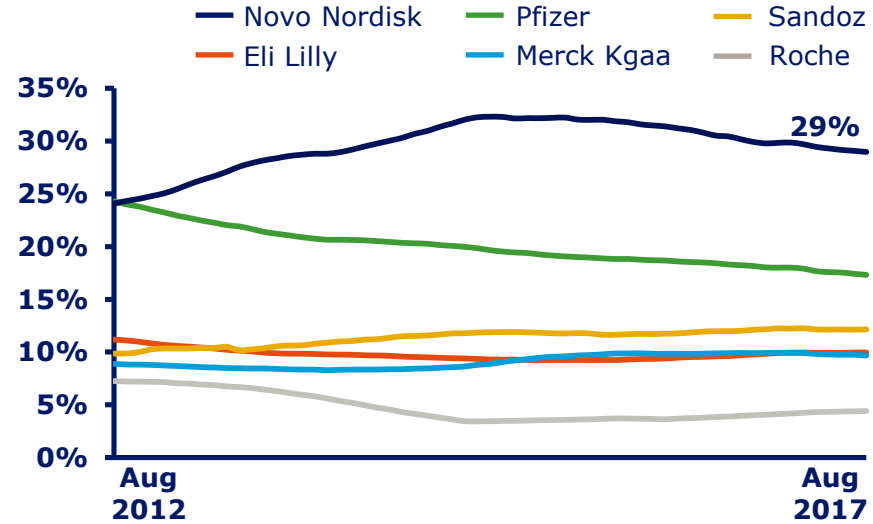
Novo Nordisk maintains leadership within human growth hormone market

Development in global human growth hormone market



[1] CAGR for 5-year period
Source: IMS monthly MAT Aug, 2017 volume figures and value (DKK) figures

Human growth hormone volume market share



Source: IMS monthly MAT Aug, 2017 volume figures

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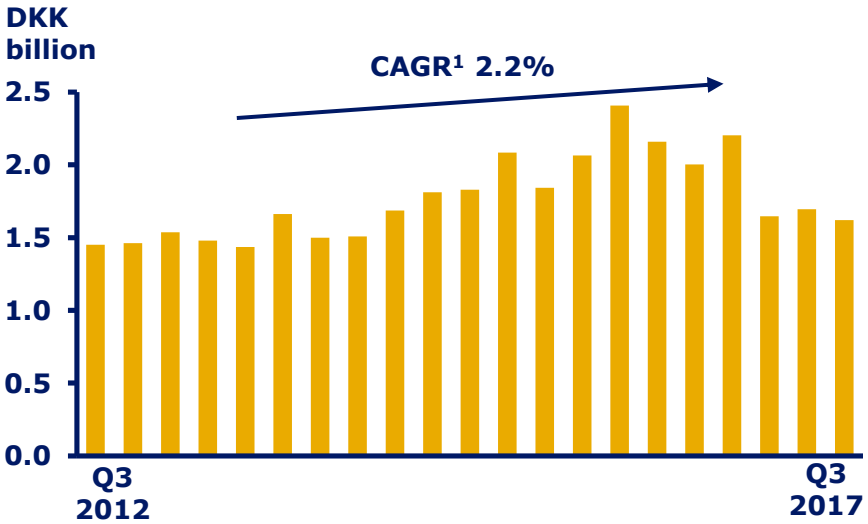
Solid Norditropin® sales growth

Norditropin® reported quarterly sales



¹ CAGR for 5-year period

Key Norditropin® properties

- **Product characteristics:** Premixed, prefilled multi-use delivery systems available in multiple strengths, and stable at room temperature
- **Expanded indications:** GHD, AGHD, Noonan Syndrome, Turner Syndrome, SGA indication, Idiopathic short stature
- Easy to use FlexPro® device
- Medical and Clinical support programmes
- Patient support programmes

GHD: Growth Hormone Deficiency; AGHD: Adult growth hormone deficiency
SGA: Small for Gestational Age

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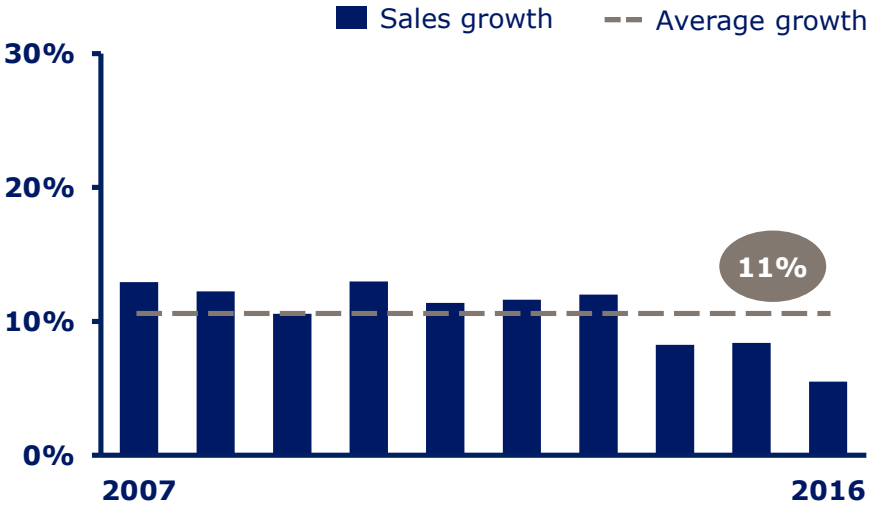
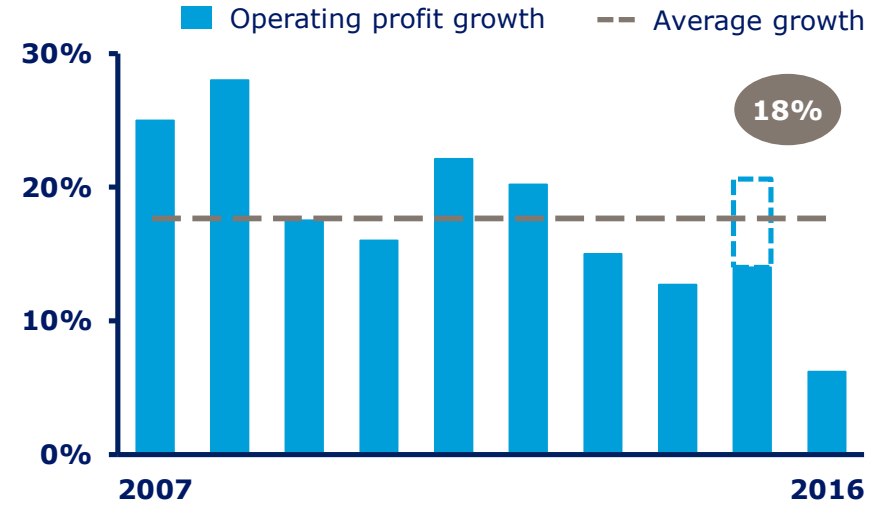
Financials

Sales have been growing by 11% on average throughout the last decade

Sales growth in local currencies 2007–2016



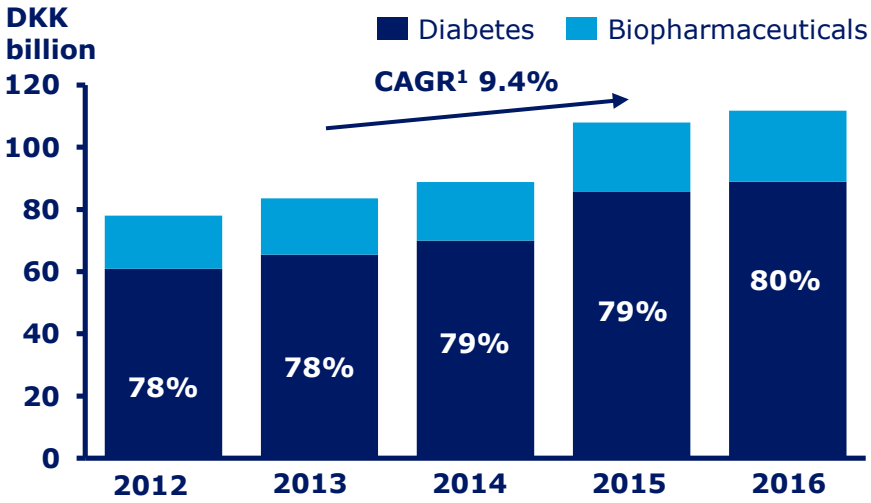
Operating profit growth in local currencies 2007–2016



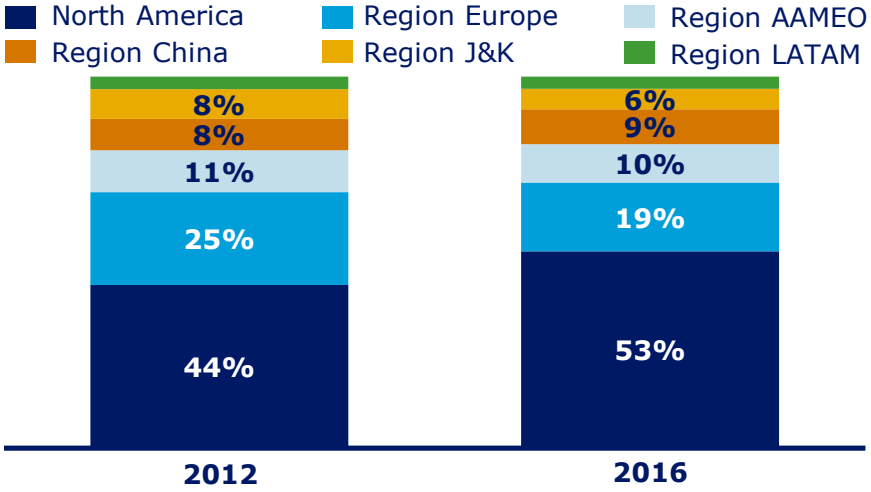
Note: Numbers for 2007 and 2008 are adjusted for the impact of the discontinuation of pulmonary insulin projects; Numbers for 2015 and 2016 are adjusted for the non-recurring income related to the partial divestment of NNIT with the dotted component representing this income; average is calculated excluding the effect of the 2015 non-recurring income.

Solid sales growth driven by the US

Reported annual sales 2012-2016



Reported annual sales split by region



[1] CAGR for 5-year period

AAMEO: Africa, Asia, Middle-East and Oceania; J&K: Japan and Korea; LATAM: Latin America

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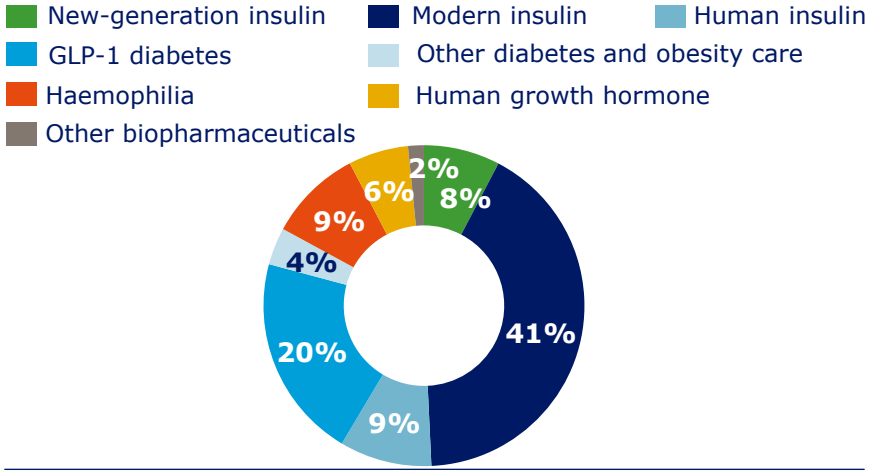
Victoza® accounts for 20% of total sales in the first nine months of 2017

Reported sales split by product segments for the first nine months of 2017



Sales of DKK 83.7 billion (+4%)

Reported sales split by selected key products for the first nine months of 2017

Reported currencies	Sales (mDKK)	Sales split
Tresiba®	5,447	7%
Levemir®	10,772	13%
NovoRapid®	15,457	18%
NovoMix®	7,800	9%
Victoza®	16,868	20%
Saxenda®	1,865	2%
Diabetes and obesity care[1]	**69,734**	**83%**
NovoSeven®	6,775	8%
Norditropin®	4,946	6%
Biopharmaceuticals[1]	**13,970**	**17%**
Total[1]	**83,704**	**100%**

[1] Values are higher than the sum of the total elements listed due to residual values from products not listed

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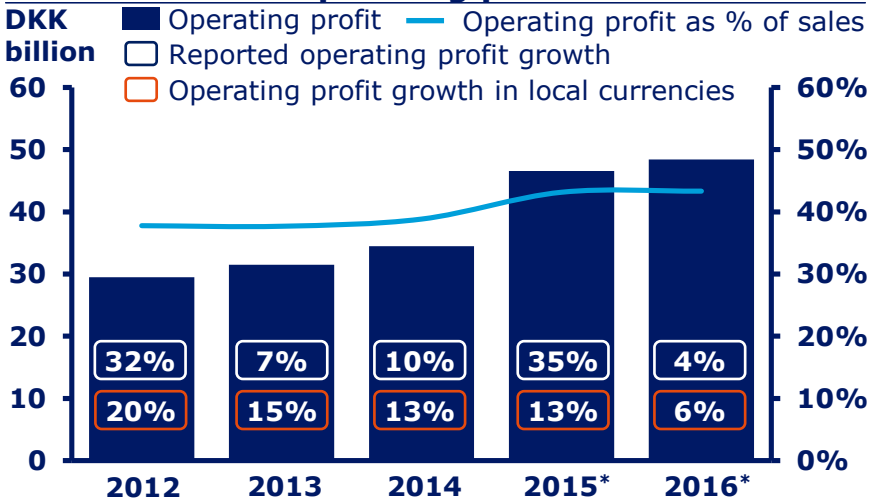
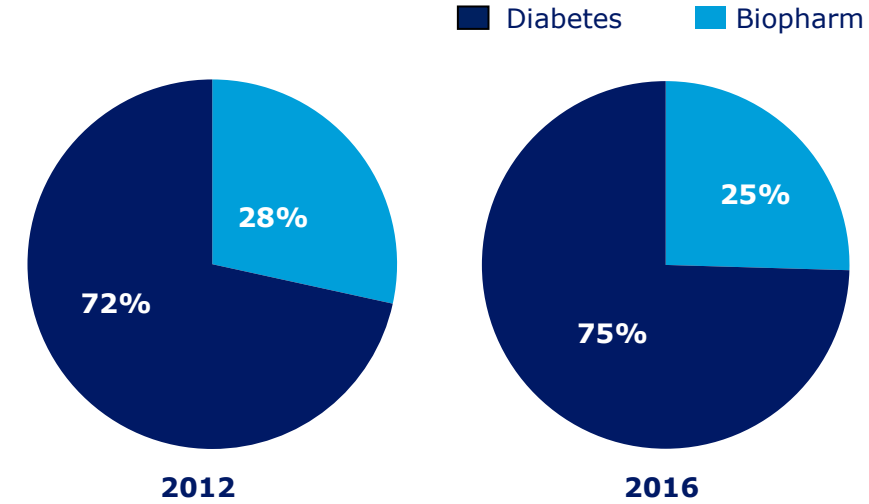
Solid operating profit growth driven by diabetes

Operating profit



Operating profit therapy split



* Adjusted for the partial divestment of NNIT A/S and inflammatory out-licensing in 2015

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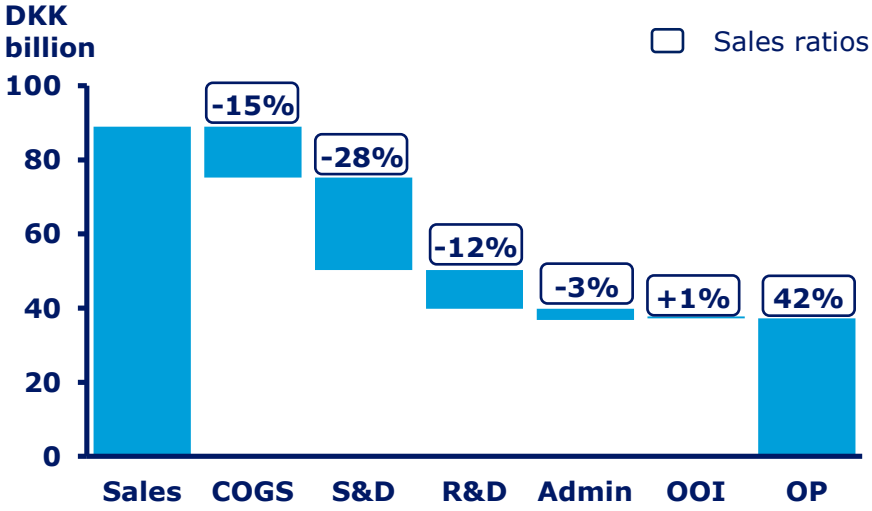
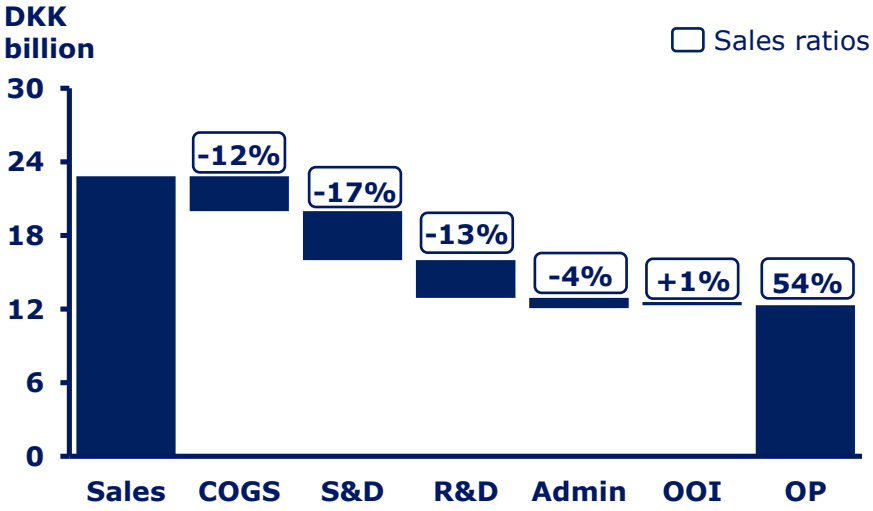
Higher profitability in the biopharmaceuticals segment driven by lower COGS and S&D

Diabetes & Obesity P&L – full year 2016



P&L: Profit and Loss; COGS: Cost of goods sold; OOI: Other operating income; OP: Operating profit
S&D: Sales and distribution cost; R&D: research and development cost; Admin: administrative cost

Biopharmaceuticals P&L – full year 2016



P&L: Profit and Loss; COGS: Cost of goods sold; OOI: Other operating income; OP: Operating profit
S&D: Sales and distribution cost; R&D: research and development cost; Admin: administrative cost

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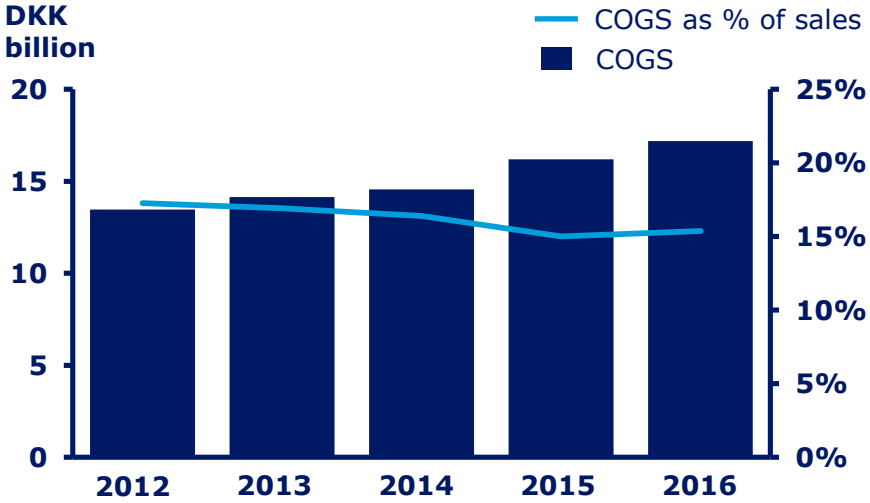
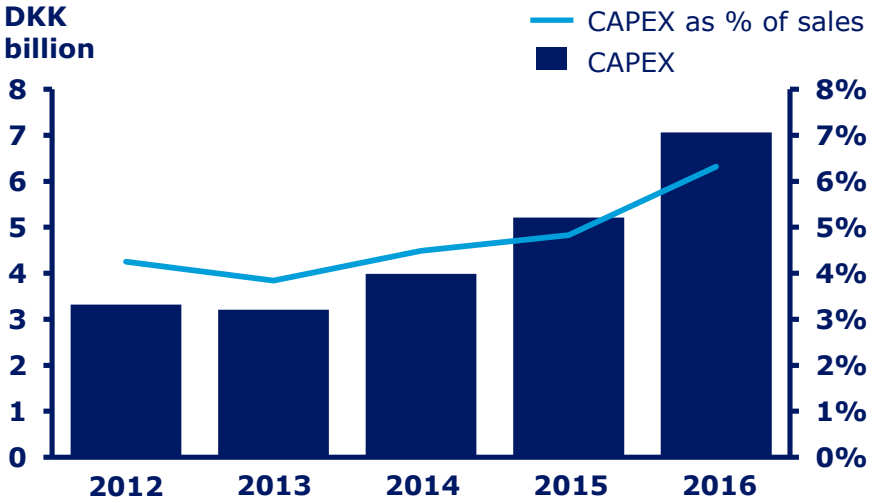
Stable COGS level as % of sales and increasing CAPEX level

Cost of Goods Sold (COGS)



Capital Expenditure (CAPEX)



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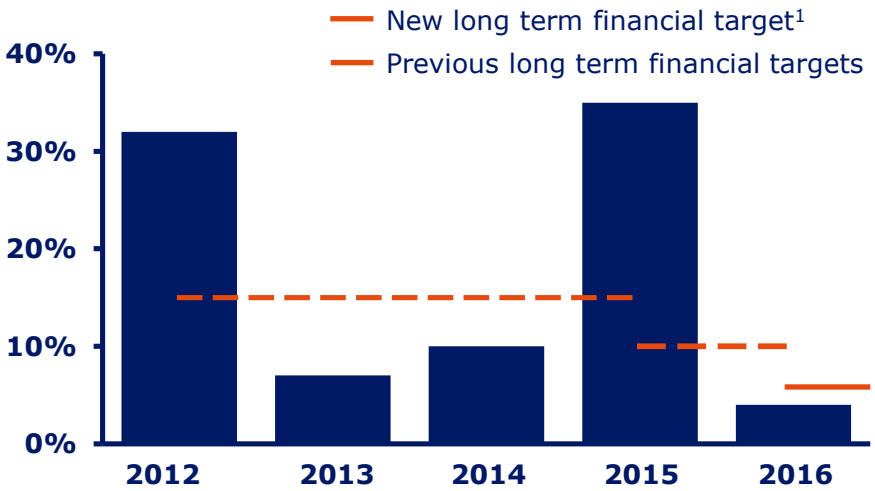
Long term financial targets:
Operating profit growth and operating margin

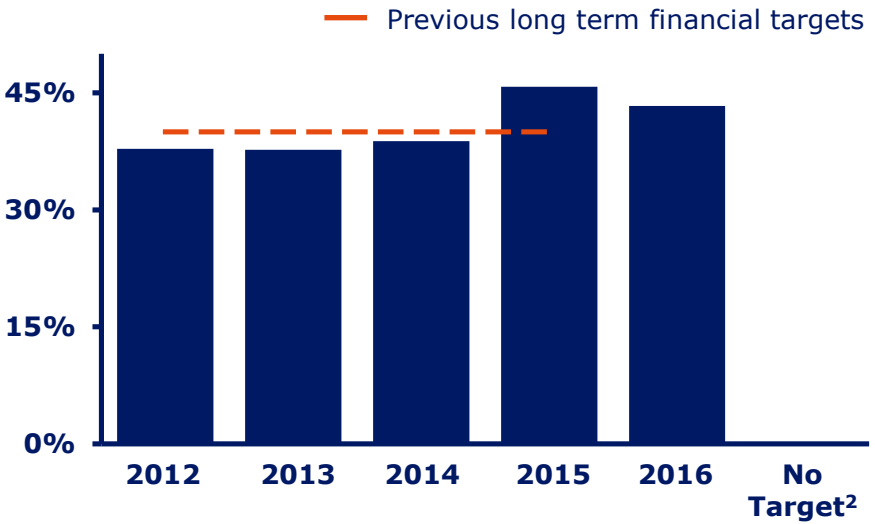
Operating profit growth



Note: The long term financial targets are based on an assumption of a continuation of the current business environment; 2015 and 2016 figures are adjusted for the partial divestment of NNIT A/S and inflammatory out-licensing in 2015

[1] New long term target established in connection with the Q3 2016 report to an average operating profit growth of 5%

Operating margin



[2] The target for operating margin was discontinued in connection with the updated long-term financial targets in Q4 2015

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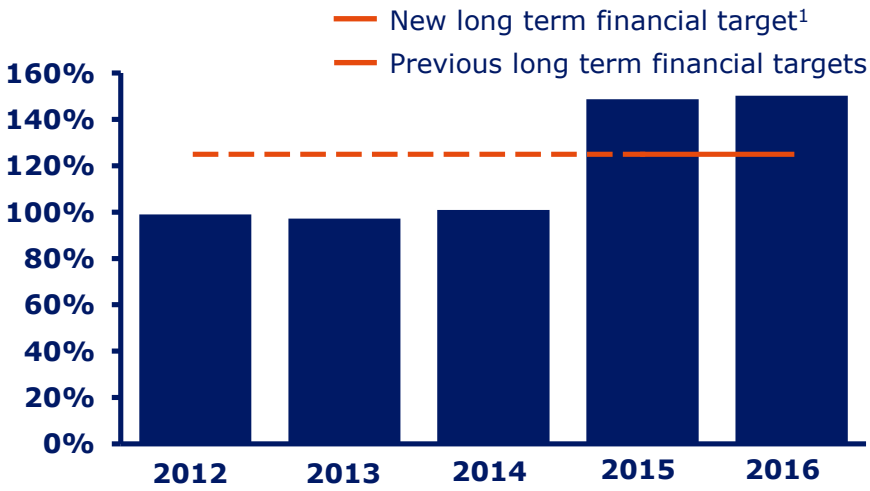
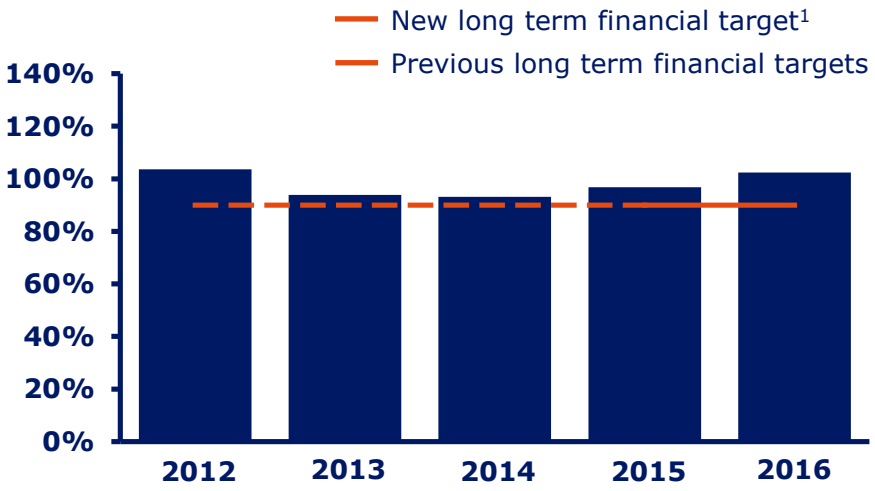
Long term financial targets:
Operating profit after tax to net operating assets and cash to earnings

Operating profit after tax to net operating assets



Cash to earnings (three year average)



Note: The long term financial targets are based on an assumption of a continuation of the current business environment

[1] New long term target established in connection with the Q3 2016 report

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Key assumptions supporting the long term financial target of an average of 5% operating profit growth[1]

Expected future sales drivers

Insulin	• Continued underlying 3-4% volume growth of the global insulin market • Market share gains and value upgrades driven by the new-generation franchise
GLP-1	• Continued expansion of the GLP-1 market with underlying volume growth of >10% annually • Solid market leadership with Victoza® supported by semaglutide launch (exp 2018)
Obesity	• Continued expansion of the obesity market with Saxenda® in the US • Successful launches in new markets
Biopharm	• Limited growth of the biopharm franchise mainly due to increased competition in the haemophilia space • Potential for bolt-on activity to support growth

[1] New long term financial target established in connection with the Q3 2016 report. The target of 5% operating profit growth is an average for the period of 4-5 years, with 2015 as the base year.

Expected future cost drivers

GM	• 1-3 percentage points decline expected as a result of US pricing impact, partly offset by mix effect and productivity gains
S&D	• 2-3 percentage points decline expected in the S&D to sales ratio • Lower growth in S&D costs mainly driven by focused promotional activities in the US
R&D	• Around 13% R&D to sales ratio expected to remain unchanged • Refocused research efforts releasing resources to be invested in adjacent disease areas
Admin	• Admin to sales ratio expected to decline to around 3% • Lower growth in admin costs driven by various savings initiatives

GM: Gross margin

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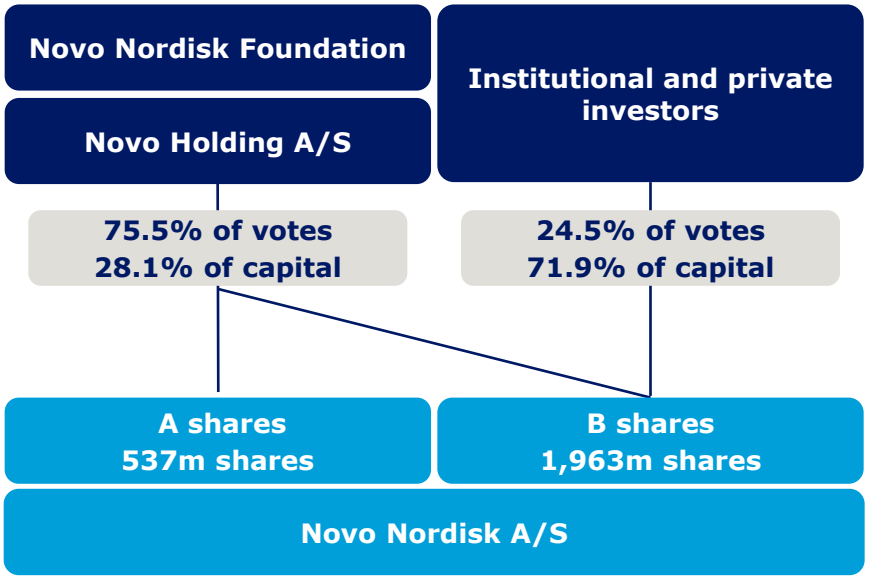
Stable ownership structure
- secured through A and B-share structure

Share structure



Note: Treasury shares are included in the capital but have no voting rights

The Novo Nordisk Foundation

- The Novo Nordisk Foundation is a self-governing institution that:
  - provides a stable basis for Novo Nordisk
  - supports scientific, humanitarian and social purposes
- All strategic and operational matters are governed by the board and management of Novo Nordisk
- Overlapping board memberships ensure that the Novo Nordisk Foundation and Novo Nordisk share vision and strategy

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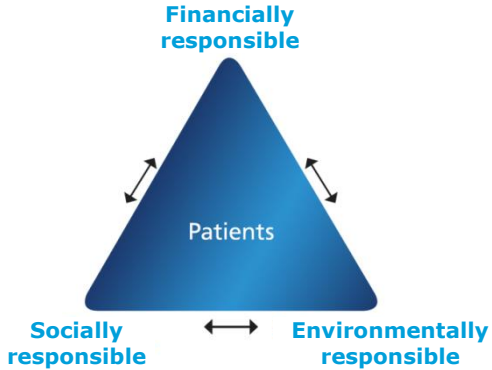
Sustainability

The Novo Nordisk Way

We build on the purpose set by our founders and live by their values: The **Novo Nordisk Way** sets the direction and unites us around a common purpose in the pursuit of our aspirations

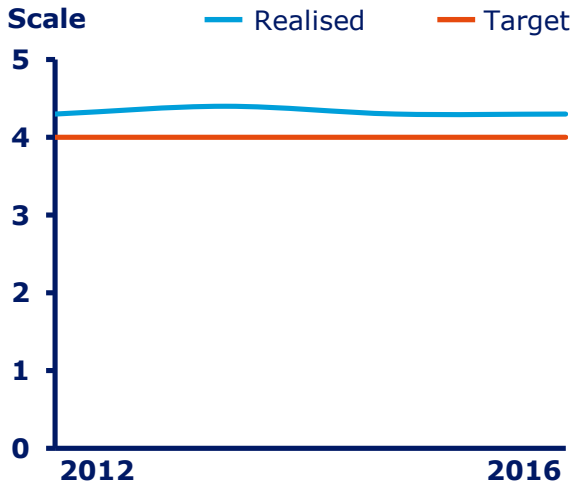
The Triple Bottom Line Business Principle



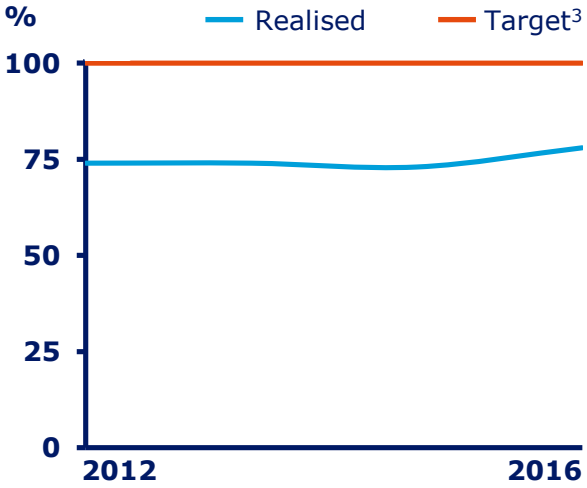
The **Triple Bottom Line Principle** guides how we do business responsibly and how we make decisions that consider the interests of stakeholders and the long-term interests of our shareholders

2016 performance towards achieving long-term sustainability goals

Working the Novo Nordisk Way[1]



Share of renewable power for production



Operating profit growth

[1] Average score in annual employee survey (1-5)
[2] 2015 and 2016 adjusted for the partial divestment of NNIT A/S and inflammatory out-licensing in 2015
[3] Target to be met by 2020
[4] Target updated in connection with the Q3 2016 earnings statement

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Cities Changing Diabetes aims to break the 'Rule of Halves' and stop urban diabetes from ruining millions of lives

Global partnerships to develop an approach to fight urban diabetes

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City Leaders

UCL

C40 CITIES
CLIMATE LEADERSHIP GROUP

- Map the challenge in selected cities
- Share learning and best practices on how to break the 'Rule of Halves'
- Drive action plans with local partners
- Identify opportunities for actions beyond the health sector

Urban diabetes: Type 2 diabetes in cities

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Eight partner cities are addressing the threat of urban diabetes

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Novo Nordisk is committed to the continued development of its employees

Employee health and safety and engagement are key focus areas for management

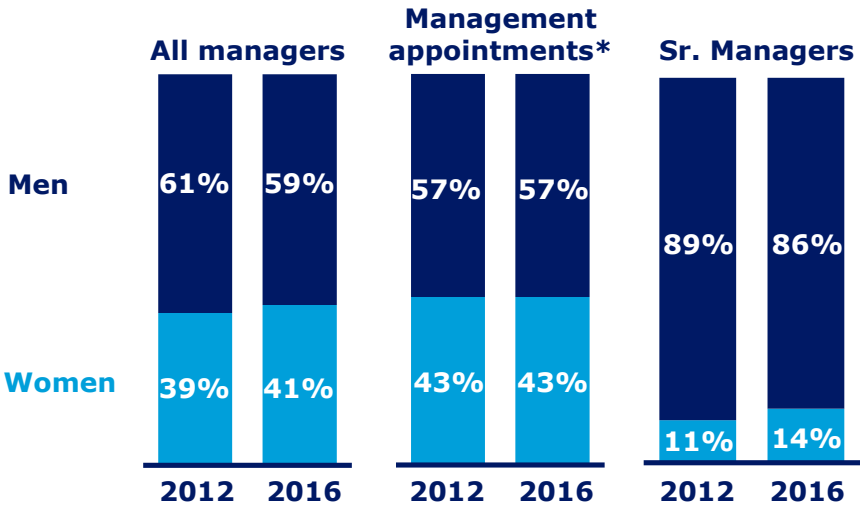
41,971 FTE employees and 3% growth vs LY[1]

4.4 engagement score with the Novo Nordisk Way

89.8% retention rate

3.0 accidents per million working hours

Novo Nordisk is committed to building a diverse and inclusive organisation



FTE: full-time employees
[1] Numbers account for FY 2016 vs FY 2015

* All appointments to management positions, incl. internal promotions and external hires, ex. NNIT

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