Manato Ohara, diagnosed with type 1 diabetes
Kanagawa, Japan

novo nordisk – a focused healthcare company

Investor presentation
Full year 2016

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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 – Full year 2016

Sales development
- Sales increased by 6% in local currencies and 4% in Danish kroner
  - North America grew by 4% in local currencies and accounted for 41% share of growth in local currencies
  - Latin America and Region China grew by 28% and 12% in local currencies, respectively
  - Tresiba® now accounts for 47% share of growth in local currencies

Research and Development
- Tresiba® demonstrated CV non-inferiority and reduced severe hypoglycaemia risk vs insulin glargine U100 in DEVOTE trial
- FDA approval received for Xultophy® 100/3.6 in the US
- Xultophy® showed significant reduction of hypoglycaemic events and weight loss in DUAL VII vs basal-bolus
- Fast-acting insulin aspart approved in the EU and Canada, class II resubmission of NDA in the US expected within 3 months

Financials
- Adjusted[1] operating profit increased by 6% in local currencies
- Diluted earnings per share adjusted for the partial divestment of NNIT increased by 19% to 14.96 DKK per share
- 19% increase in total dividend to DKK 7.60 per share of DKK 0.20 proposed (including interim dividend of DKK 3.00 paid in August 2016)
- New share repurchase programme of up to DKK 16 billion to be executed during the coming 12 months
- 2017 financial outlook:
  - Reported sales growth is expected to be 1-6% (around 2% lower in local currencies)
  - Reported operating profit growth is expected to be around 0-5% (around 2% lower in local currencies)

[1] Adjusted operating profit account for partial divestment of NNIT and out-licensing of assets for inflammatory disorders, both in 2015

Novo Nordisk's strategic priorities build on the Novo Nordisk Way

Novo Nordisk strategic priorities

- Expand leadership in **DIABETES**
- Pursue leadership in **OBESITY**
- Pursue leadership in **HAEMOPHILIA**
- Expand leadership in **GROWTH DISORDERS**
- Expand into **ADJACENT DISEASE AREAS**

The Novo Nordisk Way and 10 Essentials

1. **We create value by having a patient centred business approach**
2. We set ambitious goals and strive for excellence
3. We are accountable for our financial, environmental and social performance
4. **We provide innovation to the benefit of our stakeholders**
5. We build and maintain good relations with our key stakeholders
6. We treat everyone with respect
7. We focus on personal performance and development
8. We have a healthy and engaging working environment
9. **We optimise the way we work and strive for simplicity**
10. We never compromise on quality and business ethics

Driving future growth opportunities in International Operations

'New' IO sales growth – full year of 2016

Local currencies	Growth	Share of IO growth
Region Europe	2%	9%
Region AAMEO	7%	24%
Region China	12%	32%
Region Japan & Korea	4%	4%
Region Latin America	28%	30%
Total sales	**7%**	

AAMEO: Africa, Asia, Middle East & Oceania

Key priorities for regions ensuring future growth in International Operations

Region EU	• Continued market share gains with Tresiba® and Xultophy® • Expand Victoza® label with LEADER® CV data • Ensure successful launches of Fiasp®
Region AAMEO	• Sustain strong underlying volume market growth • Successfully launch Tresiba® and Victoza® • Continue to invest in local manufacturing to support market access
Region China	• Sustain solid insulin market growth and stabilisation of market share • Pursue further market uptake of Victoza® • Improve access to care and upgrade to modern insulin
Region Japan & Korea	• Strengthen leadership in the insulin market with Tresiba® • Expand the GLP-1 market with Victoza® • Strengthen leadership position in Biopharm
Region Latin America	• Sustain strong underlying volume market growth • Continued market share gains with Tresiba® • Expand obesity market with Saxenda®

Key focus areas to ensure sustainable growth in the US

US sales by product – full year of 2016

Local currencies	Growth (%)	Growth (mDKK)
New-generation insulin	n/a	2,211
Modern insulin	(9%)	(2,628)
Human insulin	(3%)	(57)
Victoza®	12%	1,565
Other diabetes and obesity care	73%	903
- Hereof Saxenda®	*202%*	*913*
Diabetes and obesity care	**5%**	**1,994**
Haemophilia	(7%)	(379)
- Hereof NovoSeven®	*(8%)*	*(593)*
Norditropin®	24%	866
Other biopharmaceuticals	(11%)	(270)
Biopharmaceuticals	**2%**	**217**
Total	**4%**	**2,211**

US reorganisation and key priorities

Organisation

- Reorganisation in the US completed
- Overall aim to increase focus, agility and accountability

Key priorities

- Sharpen commercial focus on key brands
- Address affordability issues for insulin products
- Engage in value based contracting approaches

Portfolio

- Commercial priorities in 2017:
  - Tresiba®
  - Victoza®
  - Saxenda®
- Xultophy® expected to be launched H1 2017

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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, partly offset by 2-3% negative impact on global pricing

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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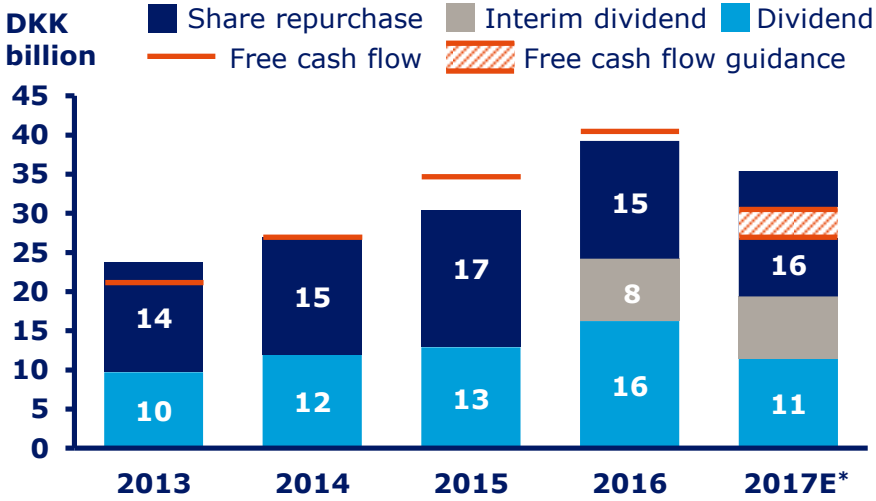
Organic growth enables steady cash return to shareholders via dividends and share repurchase programmes

Annual cash return to shareholders



Cash return priorities and business development activities

Cash return priorities

- 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 cover at least remaining cash flow
- The total programme may be reduced in size, if significant product in-licensing or bolt-on acquisition opportunities are undertaken during 2017

Business development activities

- External academic and business collaborations
- Bolt-on within Biopharm and adjacent disease areas
- Ramp-up in internal organisational capabilities

* Interim dividend for 2017 not decided. For illustration only.
Note: Dividends are allocated to the year of dividend pay. For 2017 expected free cash flow is DKK 29-33 billion. Share repurchase programmes run for 12 months starting February until end January of the following year.

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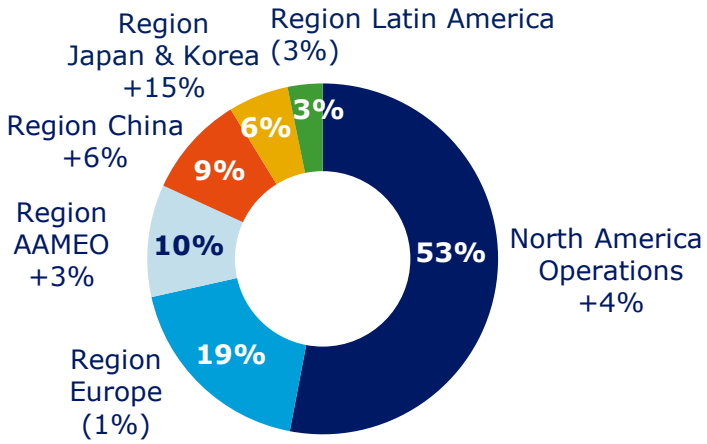
New regional structure introduced 1 January 2017. All regions contributed to local currency sales growth in 2016

Sales as reported – full year 2016



Sales of DKK 111.8 billion (+4%)

AAMEO: Africa, Asia, Middle East & Oceania
Note: Figures above reflect the new regional sales split, as illustrated in FY2016 Company Announcement (appendix 9). Full year 2016 reported sales for historic regional sales split:
- USA: 57,194 mDKK (+4% reported growth)
- Europe: 20,682 mDKK (-1% reported growth)
- International Operations: 14,050 mDKK (+2% reported growth)
- Region China: 10,458 mDKK (+6% reported growth)
- Pacific: 9,396 mDKK (+10% reported growth)

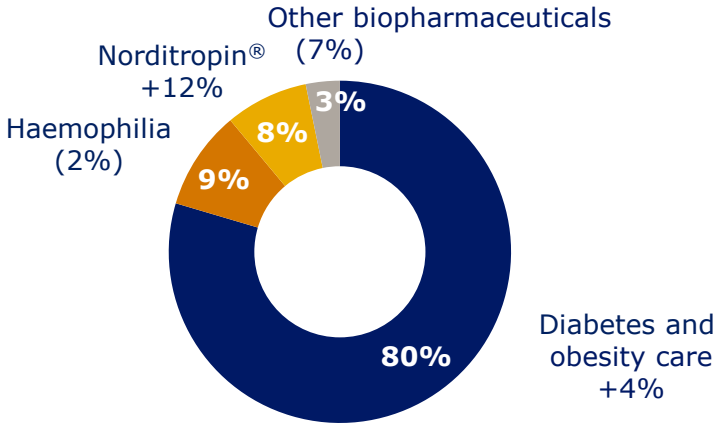
Growth analysis – full year 2016

Local currencies	Growth	Share of growth
North America Operations	**4%**	**41%**
Hereof USA	4%	37%
International Operations	**7%**	**59%**
Region Europe	2%	5%
Region AAMEO	7%	14%
Region China	12%	19%
Region Japan & Korea	4%	3%
Region Latin America	28%	18%
Total sales	**6%**	**100%**

AAMEO: Africa, Asia, Middle East & Oceania
Note: Figures above reflect the new regional sales split, as illustrated in FY 2016 Company Announcement (appendix 9). Local sales growth and share of growth (SOG) for historic regional sales split:
- USA: +4% (SOG: 37%)
- Europe: +2% (SOG: 5%)
- International Operations: +14% (SOG: 32%)
- Region China: +12% (SOG: 19%)
- Pacific: +5% (SOG: 7%)

Sales growth is driven by new-generation insulin and Victoza®

Sales as reported – full year 2016



Sales of DKK 111.8 billion (+4%)

Note: Norditropin® sales growth in the full year 2016 is derived primarily from the US and reflects a positive non-recurring adjustment to rebates in the Medicaid patient segment

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Growth analysis – full year 2016

Local currencies	Growth	Share of growth
New-generation insulin[1]	212%	51%
Modern insulin	(3%)	(25%)
Human insulin	2%	4%
Victoza®	12%	36%
Other diabetes and obesity care[2]	26%	21%
- Hereof Saxenda®	245%	19%
Diabetes and obesity care	**6%**	**87%**
Haemophilia[3]	0%	(1%)
Norditropin®	14%	18%
Other biopharmaceuticals[4]	(6%)	(4%)
Biopharmaceuticals	**4%**	**13%**
Total	**6%**	**100%**

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

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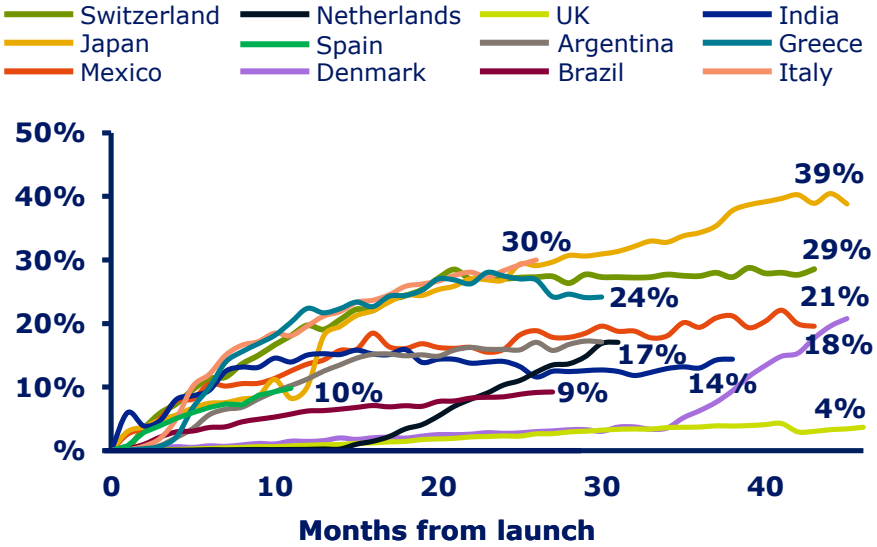
Roll-out of new-generation insulin portfolio continuing

Key launch observations

- **Tresiba**® launched in 52 countries with solid penetration in markets with similar reimbursement as insulin glargine
- **Ryzodeg**® launched in Switzerland, Mexico, India, Bangladesh, Japan, Russia, Lebanon, South Africa, Nepal and now the Netherlands
- **Xultophy**® launched in Switzerland, the United Kingdom, Sweden, Hungary, Greece, Cyprus and now Czech Republic, France and the Netherlands

Tresiba® value share of basal insulin segment in selected countries, excluding the USA



Note: Limited IMS coverage in India
Source: IMS Monthly value figures, November 2016

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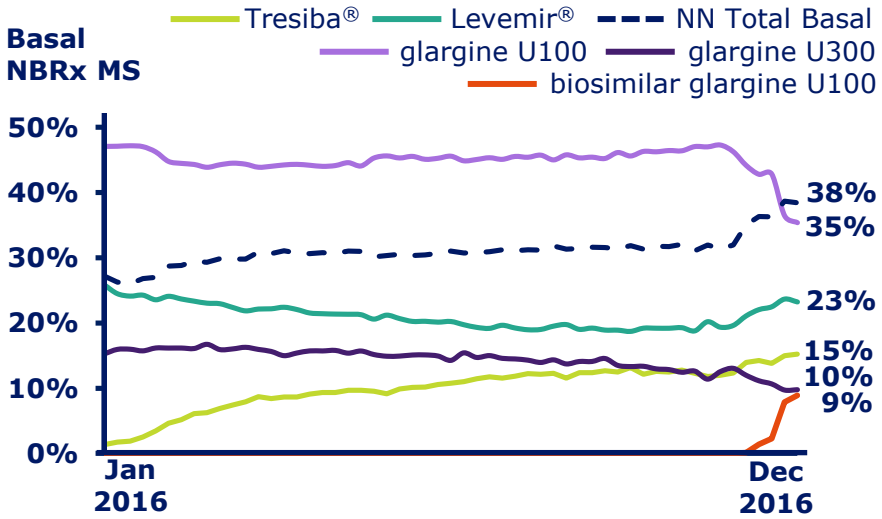
Increasing total market share of the basal insulin franchise in the US

Weekly US NBRx volume market shares



Note: The graph does not show NPH, which accounts for the residual market share
Source: IMS weekly data, 13 January 2017, excludes Medicaid
NBRx: New-to-brand prescriptions; MS: Market share

Tresiba® launch in the US

- Full commercial launch in January 2016 following specialist engagement in Q4 2015
- Tresiba® volume market share reached 5.5% by the end of 2016
- Recent increase in Tresiba® and Levemir® uptake following commercial formulary changes for CVS in the basal insulin segment
- Tresiba® U200 accounts for nearly 80% of total Tresiba® volume
- Wide formulary access has been obtained with around 75% access for patients in commercial channels and Medicare part D combined

Source: IMS weekly data, 13 January 2017, excludes Medicaid

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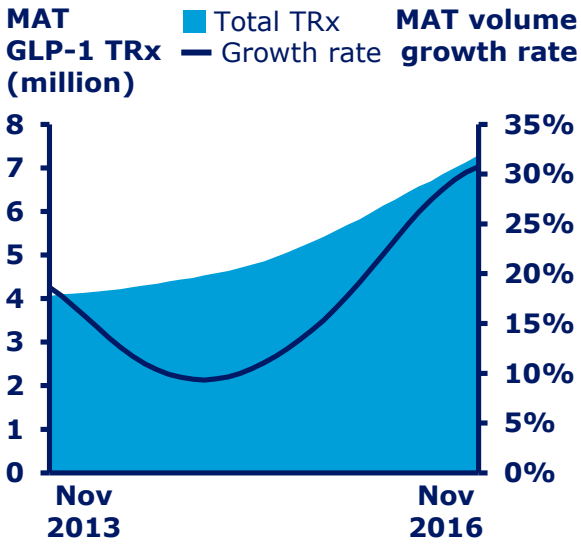
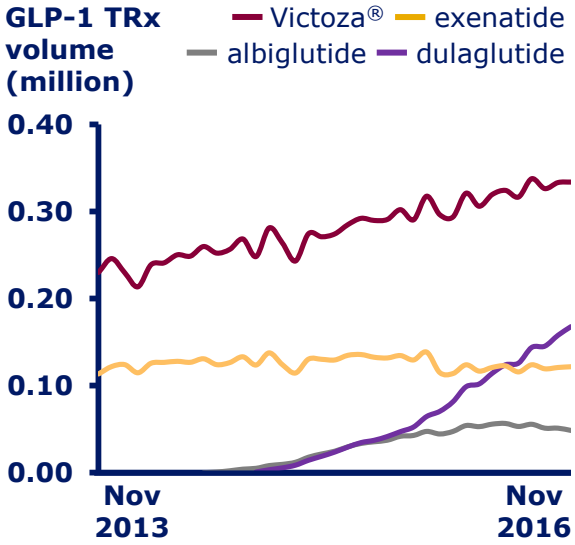
Victoza® maintains leadership in the faster growing US GLP-1 market

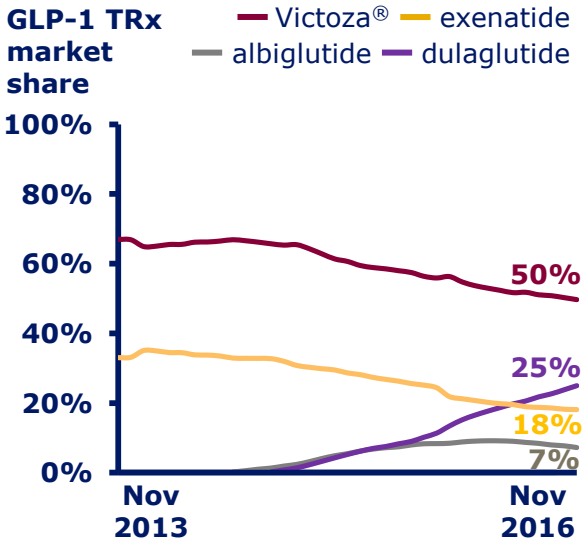
US GLP-1 market development



US GLP-1 market TRx volume



US GLP-1 market shares



Source: IMS NPA monthly, November 2016

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

DEVOTE trial design

Trial objective

- To investigate the cardiovascular safety of Tresiba®

CV: Cardiovascular
Note: 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 at least 633 events

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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

- Presentation of detailed results at a scientific meeting and submission to regulatory authorities in the first half of 2017

CV: Cardiovascular

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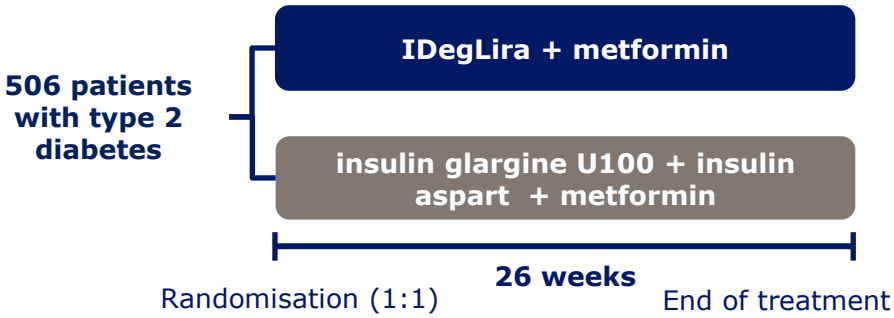
Xultophy® showed significant reduction of hypoglycaemic events and weight loss vs basal-bolus in phase 3b study

DUAL VII phase 3b trial design



Trial objective

- To confirm the efficacy of Xultophy® versus basal-bolus therapy in terms of glycaemic control

BMI: Body Mass Index
Key inclusion criteria: Adults with type 2 diabetes and BMI ≤40kg/m2; HbA_{1c} 7.0-10.0% and current basal insulin therapy 20-50 units insulin glargine U100 + metformin per day

Key results and next steps

- Xultophy® successfully demonstrated similar glucose control compared to insulin glargine U100 in combination with insulin aspart
- Xultophy® showed superior reduction of 89% in the rate of severe or blood glucose confirmed symptomatic hypoglycaemic episodes compared to insulin glargine U100 in combination with insulin aspart
- Xultophy® patients experienced a weight loss of 0.9 kg compared with a weight gain of 2.6 kg with the basal-bolus regimen
- At the end of the trial Xultophy® patients required 40 units compared to a total of 85 units with insulin glargine U100 in combination with insulin aspart
- **Next steps:** Expected launch Xultophy® 100/3.6 in the US in H1 2017 and presentation of DUAL VII data at a scientific meeting in 2017

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Fast-acting insulin aspart approved in the EU and Canada, resubmission of the NDA in the US within three months

Regulatory decisions and next steps

- Fiasp® (fast-acting insulin aspart) received marketing authorisation in Europe and Canada
- Next step: Expected to be launched in the first European countries and Canada in H1 2017

- Review and discussion with FDA completed, following the Complete Response Letter (CRL) in October 2016
- Next step: Class II resubmission of the NDA for fast-acting insulin aspart in the US expected within the next three months

Fiasp® vs NovoRapid® EU label characteristics

Efficacy	• Fiasp® HbA_{1c} reduction of -0.32% compared NovoRapid® of -0.15% in type 1 diabetes patients • Fiasp® 1-h PPG reduction of -0.29 mmol/l
Pharma-cokinetics	• Fiasp® twice as fast as NovoRapid® • Twice as much insulin available during first 30 minutes with Fiasp®
Safety	• Overall safety of Fiasp® consistent with NovoRapid® • Hypoglycaemia may occur earlier compared to other mealtime insulins
Specific populations	• Fiasp® approved for pregnancy and pumps as NovoRapid® • Paediatric use not yet approved for Fiasp® and more limited geriatric use vs NovoRapid®

NDA: New drug application

PPG: Postprandial glucose; SC: Subcutaneous

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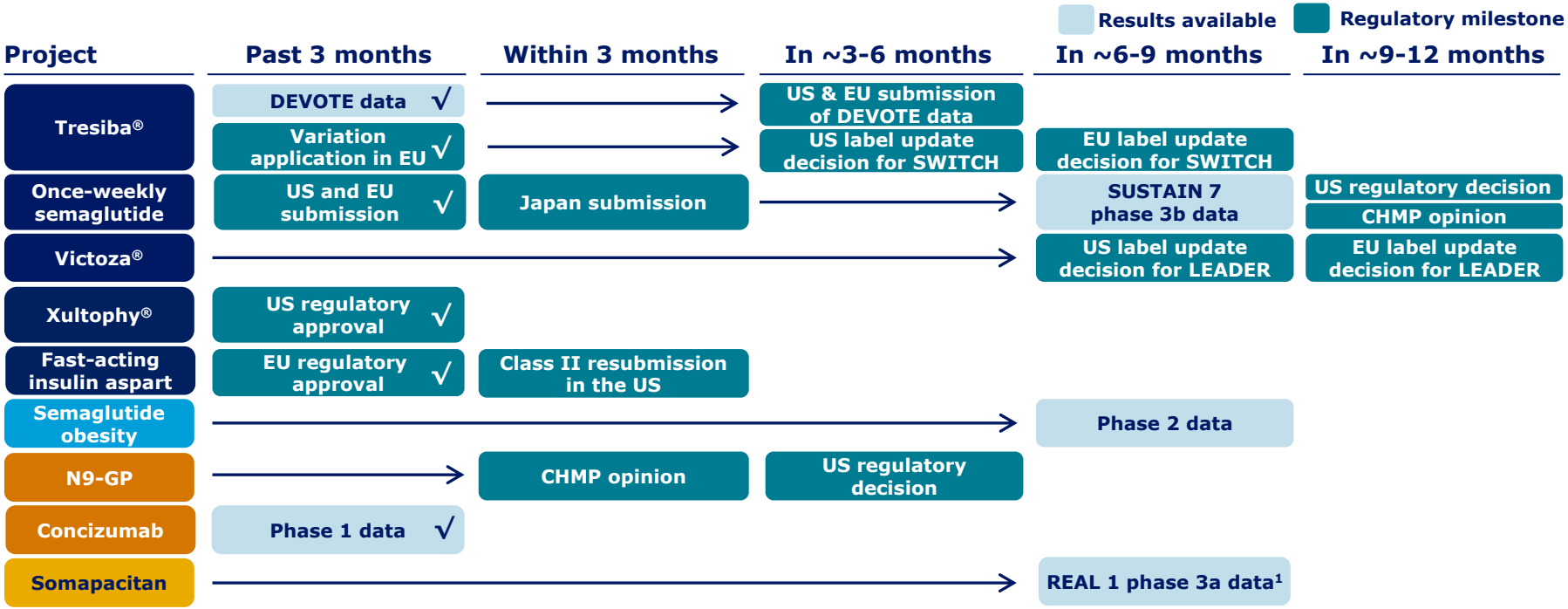
Key development milestones reached

Diabetes	• FDA approval for Xultophy® 100/3.6 (NN9068) in the US • Supplemental application for the SWITCH trials submitted for Tresiba® (NN1250) in the EU • Real-world evidence study EU-TREAT with Tresiba® completed • Submission of once-weekly semaglutide (NN9535) in the US and EU for the treatment of type 2 diabetes • All ten clinical trials in the oral semaglutide (NN9924) phase 3a PIONEER programme initiated • Once daily semaglutide (NN9536) phase 2 results • Anti-IL-21 and GLP-1 in type 1 diabetes (NN9828) granted orphan drug designation in the US
Obesity and other areas	• FGF21 obesity (NN9499) phase 1 trial initiated • Phase 2 trial with once-daily semaglutide (NN9931) initiated in NASH
Biopharm	• Concizumab (NN7415) phase 1b multiple dose trial Explorer 3 completed

Significant regulatory news flow in 2017



Note: Indicated timeline as of financial release for full year 2017 on 2 February [1] Study conducted in adult growth hormone disorder

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Financial results – full year 2016

DKK million	FY 2016	FY 2015	Change
Sales	111,780	107,927	4%
Gross profit	94,597	91,739	3%
Gross margin	*84.6%*	*85.0%*	
Sales and distribution costs	(28,377)	(28,312)	0%
Percentage of sales	*25.4%*	*26.2%*	
Research and development costs	(14,563)	(13,608)	7%
Percentage of sales	*13.0%*	*12.6%*	
Administration costs	(3,962)	(3,857)	3%
Percentage of sales	*3.5%*	*3.6%*	
Other operating income, net	737	3,482	N/A
Non-recurring income[1]	-	*2,376*	
Operating profit	48,432	49,444	(2%)
Operating profit adjusted for non-recurring income[1,2]	*48,432*	*46,619*	*4%*
Financial items (net)	(634)	(5,961)	(89%)
Profit before income tax	47,798	43,483	10%
Tax	(9,873)	(8,623)	14%
Effective tax rate	*20.7%*	*19.8%*	
Net profit	37,925	34,860	9%
Diluted earnings per share (DKK)	14.96	13.52	11%
Diluted earnings per share (DKK) adjusted for partial divestment of NNIT[1]	*14.96*	*12.58*	*19%*

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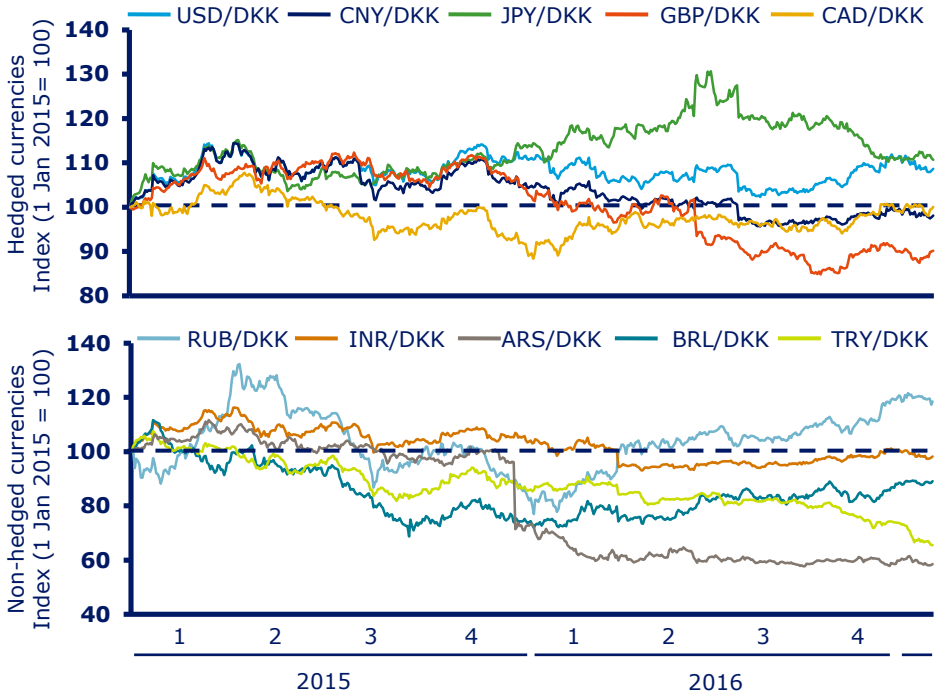
[1] Non-recurring income comprises the partial divestment of NNIT (DKK 2,376 million) in 2015 [2] Non-recurring income comprises the out-licensing of assets for inflammatory disorders (DKK 449 million) in 2015

Currency impact in 2016 driven by unfavourable development in both hedged and unhedged currencies



Hedged Currencies	2015 average	2016 average[2]	Spot rate[2]	Impact of a 5% move[3]	Hedging (months)
USD[1]	673	673	697	2,100	12
CNY[1]	107.0	101.3	101.3	320	9[4]
JPY[1]	5.56	6.21	6.05	200	14
GBP[1]	1,028	911	873	90	12
CAD[1]	526	508	531	75	11

Non-hedged Currencies	2015 average	2016 average[2]	Spot rate[2]
ARS[1]	0.73	0.46	0.44
TRY[1]	248	223	179
INR[1]	10.49	10.02	10.23
RUB[1]	11.06	10.10	11.78
BRL[1]	205	195	220

[1] DKK per 100; [2] As of 27 January 2017; [3] Operating profit in 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 +30 million

Financial outlook for 2017

	Expectations 2 Feb 2017
Sales growth - local currencies	-1 to 4%
Sales growth - reported	Around 2 percentage points higher
Operating profit growth - local currencies	-2% to 3%
Operating profit growth - reported	Around 2 percentage points higher
Financial items (net)	Loss of around DKK 2.4 billion
Effective tax rate	21-23%
Capital expenditure	Around DKK 10.0 billion
Depreciation, amortisation and impairment losses	Around DKK 3 billion
Free cash flow	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 January 2017

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
60%	Novo Nordisk GLP-1 volume market share with strong global leadership position
15	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 and growth hormone disorders

Source: IMS MAT November 2016 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

23 Mar 2017	Annual General Meeting 2017
03 May 2017	Financial statement for the first three months of 2017
09 Aug 2017	Financial statement for the first half of 2017
01 Nov 2017	Financial statement for the first nine months of 2017

Investor Relations contacts

Novo Nordisk A/S
Investor Relations
Novo Allé, DK-2880 Bagsværd

Peter Hugreffe Ankersen	+45 3075 9085	phak@novonordisk.com
Melanie Raouzeos	+45 3075 3479	mrz@novonordisk.com
Hanna Ögren	+45 3079 8519	haoe@novonordisk.com
Anders Mikkelsen	+45 3079 4461	armk@novonordisk.com
In North America:		
Kasper Veje	+1 609 235 8567	kpvj@novonordisk.com

Appendix

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

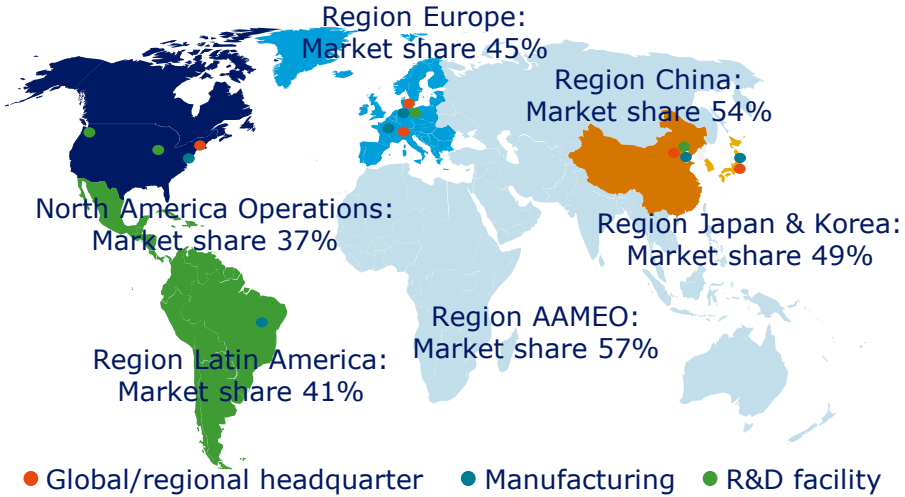
Novo Nordisk at a glance

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 R&D pipeline
- **High barriers to entry** in biologics
- **Operating profit growth** targeting **5% 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 November 2016 volume figures

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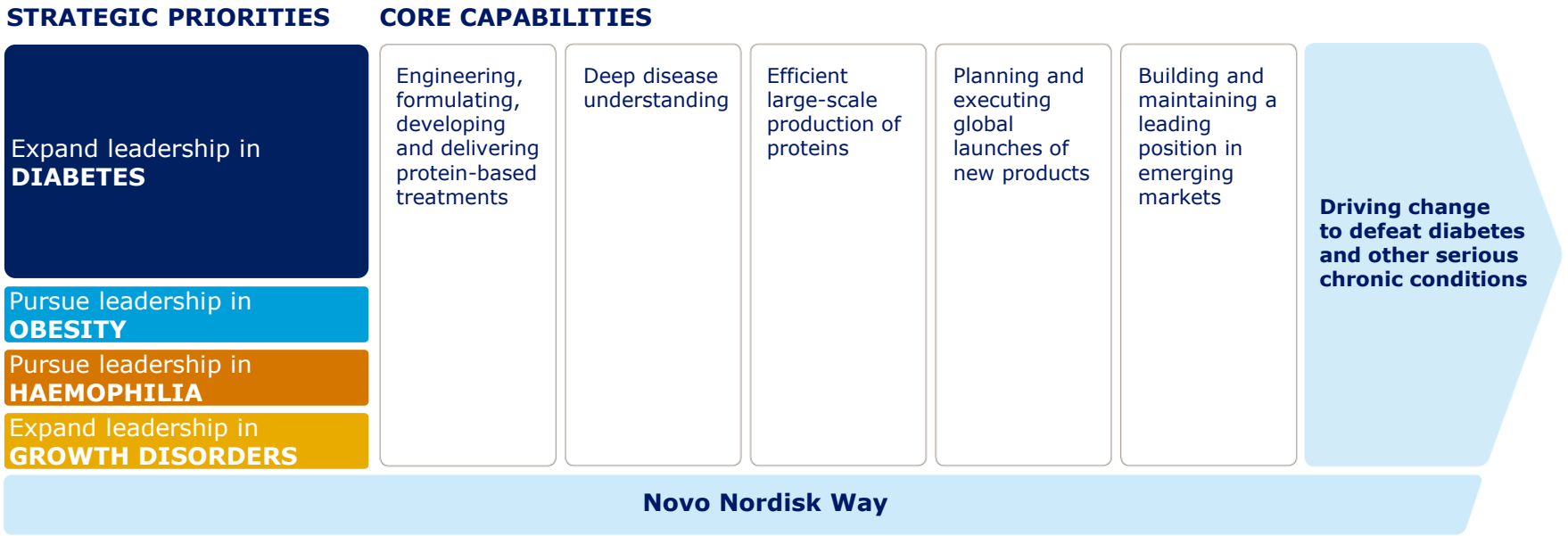
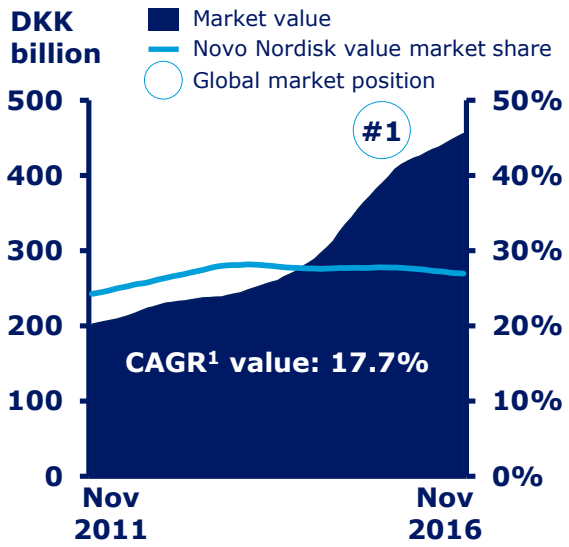
Novo Nordisk works with four strategic focus areas based on five core capabilities



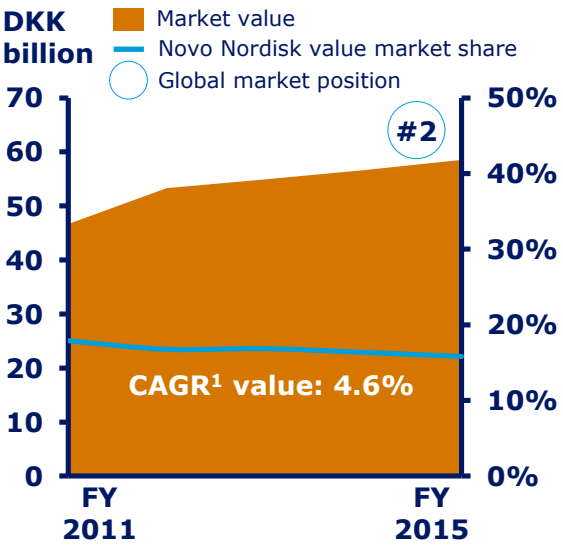
Novo Nordisk has leading positions in diabetes, haemophilia and growth disorders

Diabetes



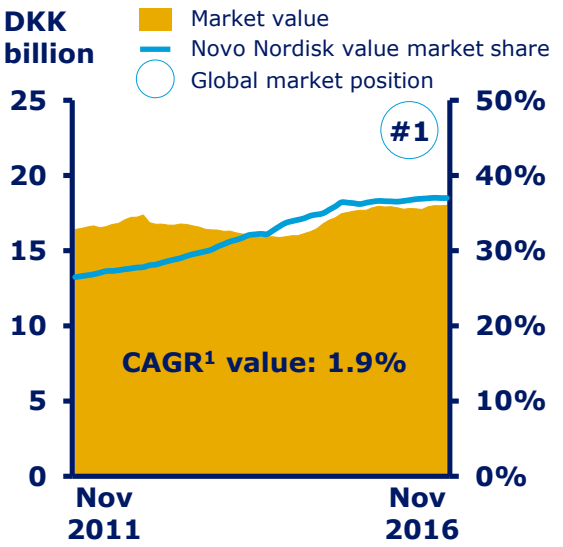
¹ CAGR for 5-year period
Source: IMS MAT November, 2016 value figures

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 November, 2016 value figures

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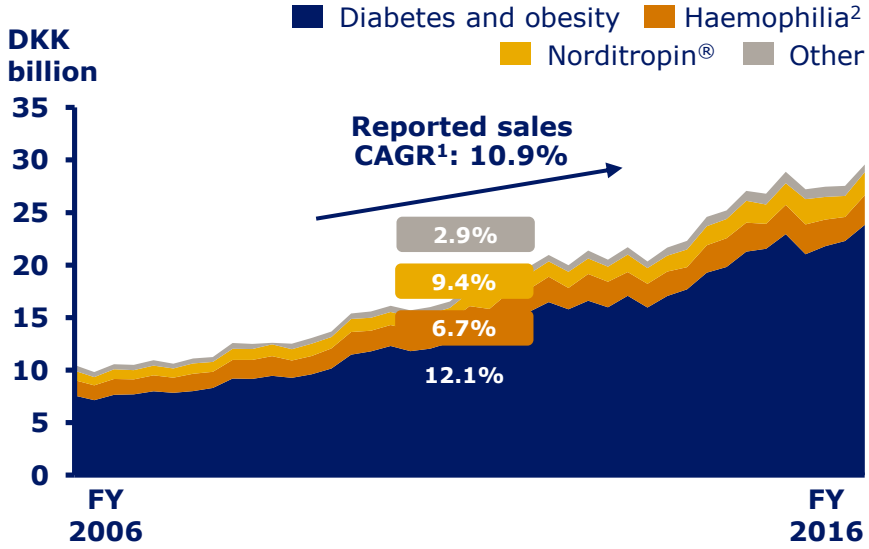
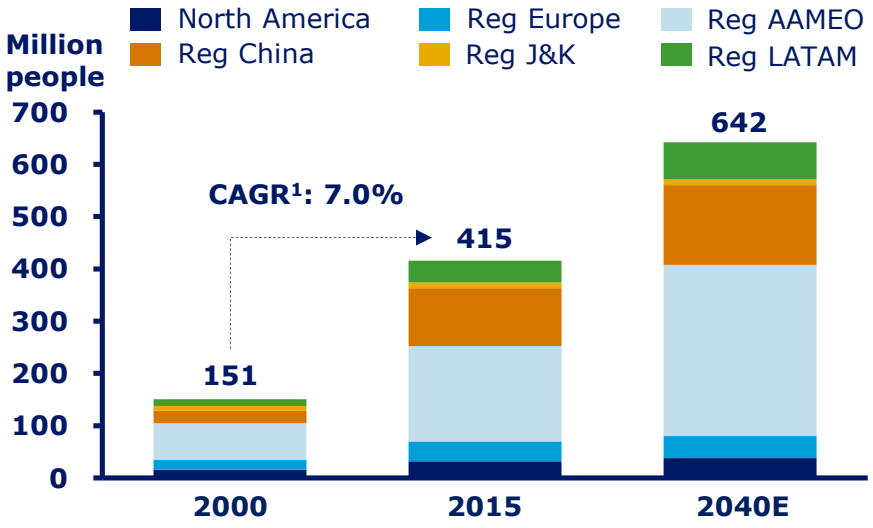
Top line growth driven by the diabetes pandemic

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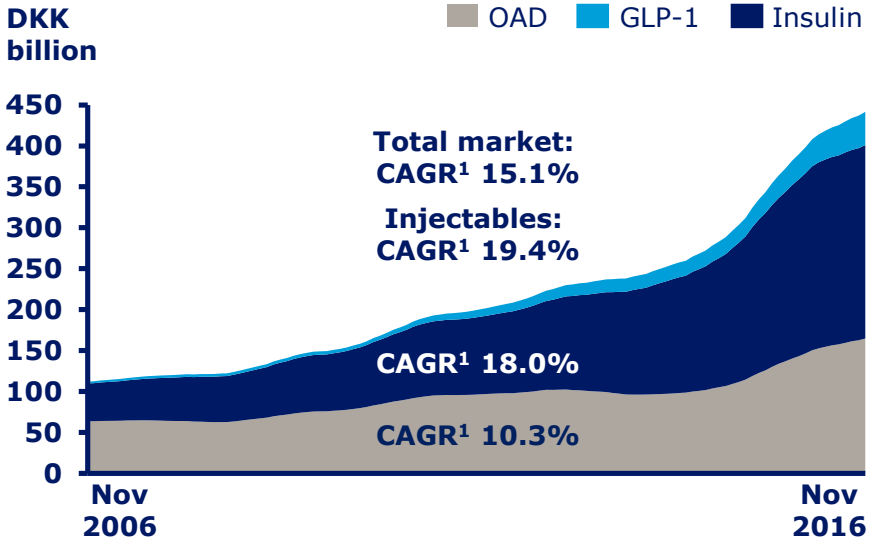
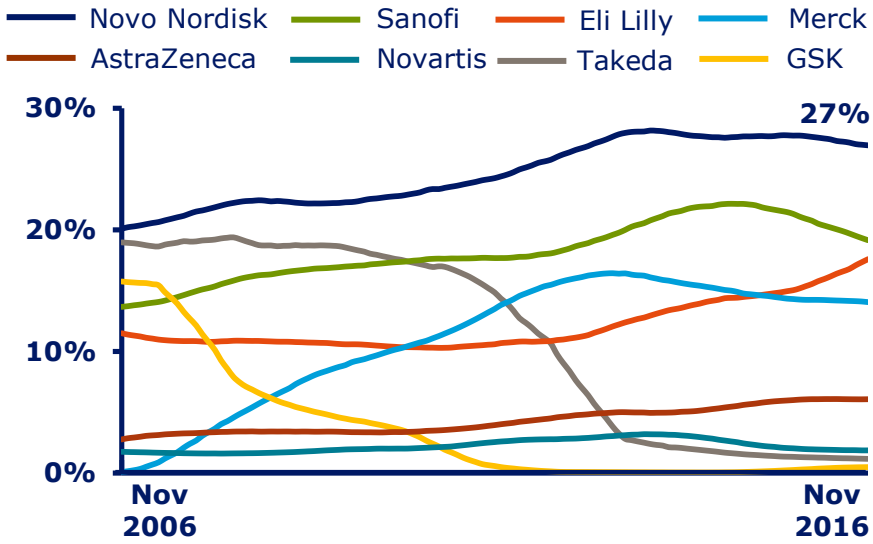
Novo Nordisk has a strong leadership position within the growing diabetes care market

Global diabetes care market by treatment class



[1] CAGR for 10-year period
OAD: Oral Anti-diabetic
Source: IMS Monthly MAT November, 2016 value figures

Global diabetes care value market share



Source: IMS Monthly MAT November, 2016 value figures

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

PHASE 1

- LAI287 – QW basal insulin
- NN1406 – Mealtime insulin
- G530S – Glucagon analogue
- NN9838 – Amylin analogue
- NN9747 – PYY analogue
- NN9277 – GG-co-agonist
- NN9499 – FGF21 obesity
- NN7415 – Concizumab

PHASE 2

- Semaglutide – QD GLP-1
- Anti-IL-21 and liraglutide
- Semaglutide – QD GLP-1

PHASE 3

- OG217SC – Oral GLP-1
- N8-GP – Long-acting rFVIII
- Somapacitan – QW GH[2]

SUBMITTED

- Fast-acting insulin aspart (US)
- Semaglutide – QW GLP-1
- N9-GP - Long-acting rFIX

APPROVED[1]

- Levemir®
- NovoRapid®
- NovoMix®
- Tresiba®
- Ryzodeg®
- Xultophy® (EU & US)
- Victoza®
- Fiasp® (EU)
- Saxenda®
- NovoSeven®
- NovoEight®
- NovoThirteen®
- Norditropin®

Diabetes
Obesity
Haemophilia
Growth disorders

[1] Approved in all triad markets (US, EU and Japan), unless noted [2] Study conducted in adult growth hormone disorder
GG: Glucagon GLP-1

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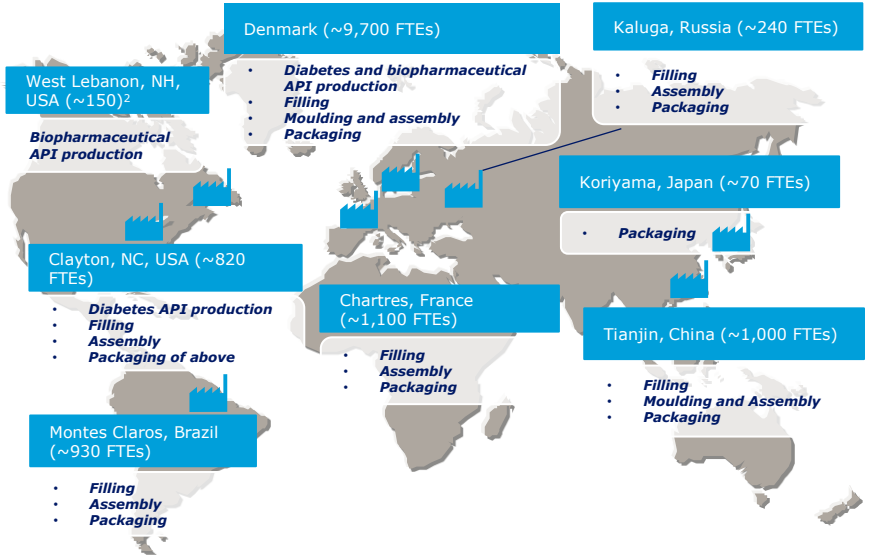
Growth opportunities supported by strong global presence in both sales and manufacturing

FTEs in sales regions[1]

North America Operations:	~5,000
Region Africa, Asia, Middle-East and Oceania (AAMEO):	~4,700
Region China:	~3,000
Region Europe:	~2,700
Region Japan & Korea:	~1,100
Region Latin America:	~800
Total non-HQ/manufacturing FTEs:	**~17,300[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 January 2017
[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	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

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

[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.
Source: Novo Nordisk

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 it produces

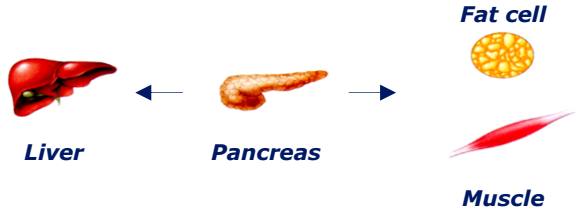
Primary classifications:

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



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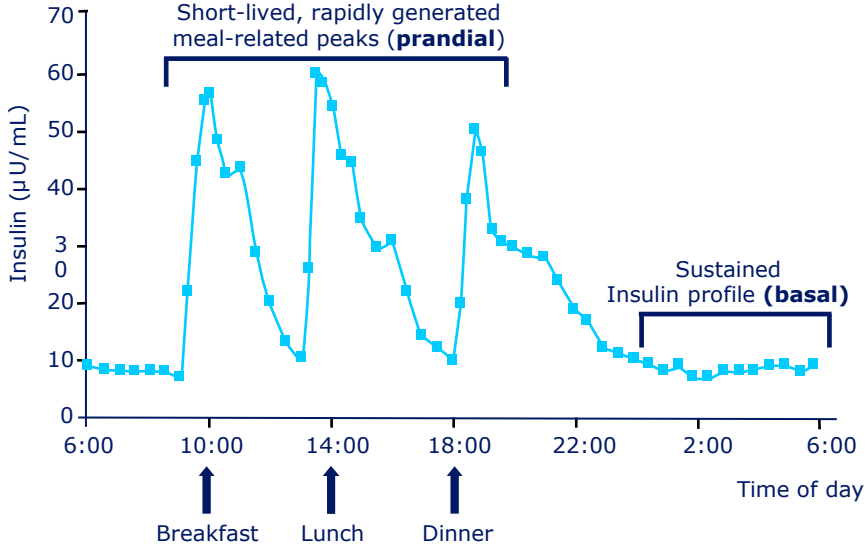
The aim of insulin therapy is to recreate normal blood insulin profile



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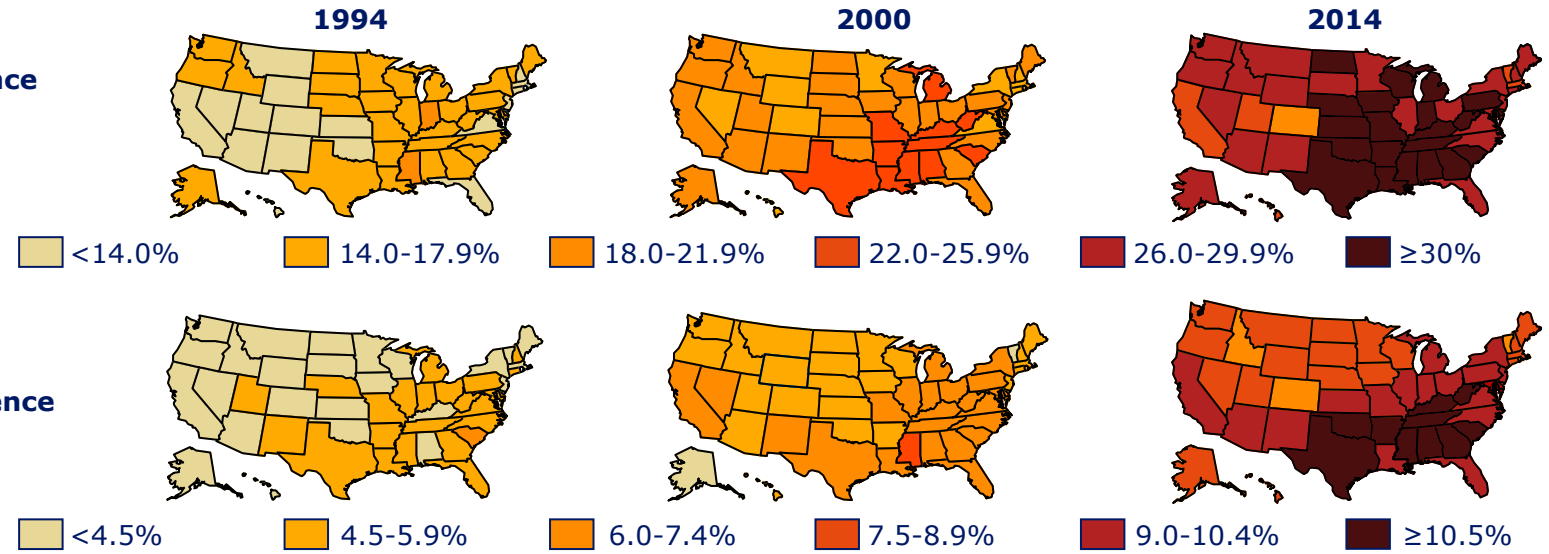
Diabetes pandemic is fuelled by growing rates of obesity

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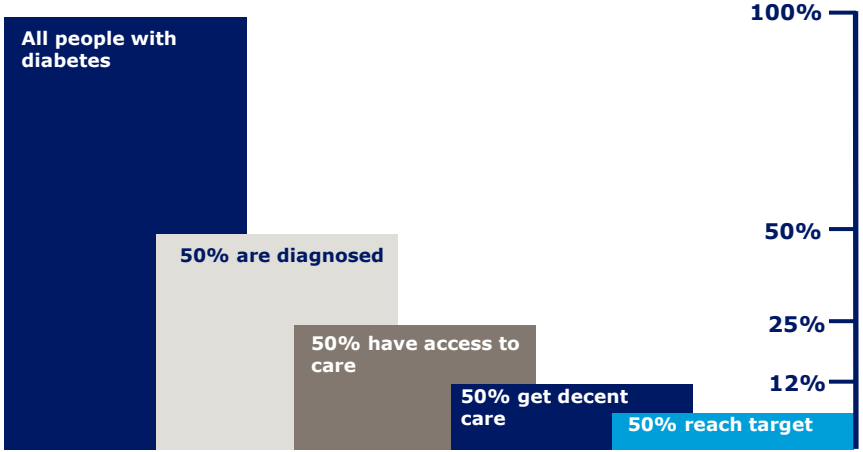
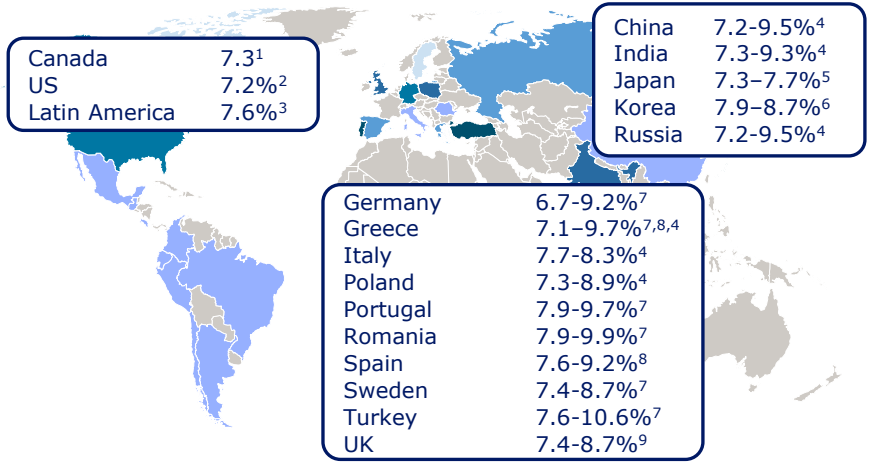
Poor diagnosis rates, lack of access to optimal treatment and poor glycaemic control remain global problems

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



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



Canada	7.3[1]
US	7.2%[2]
Latin America	7.6%[3]

China	7.2-9.5%[4]
India	7.3-9.3%[4]
Japan	7.3–7.7%[5]
Korea	7.9–8.7%[6]
Russia	7.2-9.5%[4]

Germany	6.7-9.2%[7]
Greece	7.1–9.7%[7,8,4]
Italy	7.7-8.3%[4]
Poland	7.3-8.9%[4]
Portugal	7.9-9.7%[7]
Romania	7.9-9.9%[7]
Spain	7.6-9.2%[8]
Sweden	7.4-8.7%[7]
Turkey	7.6-10.6%[7]
UK	7.4-8.7%[9]

[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

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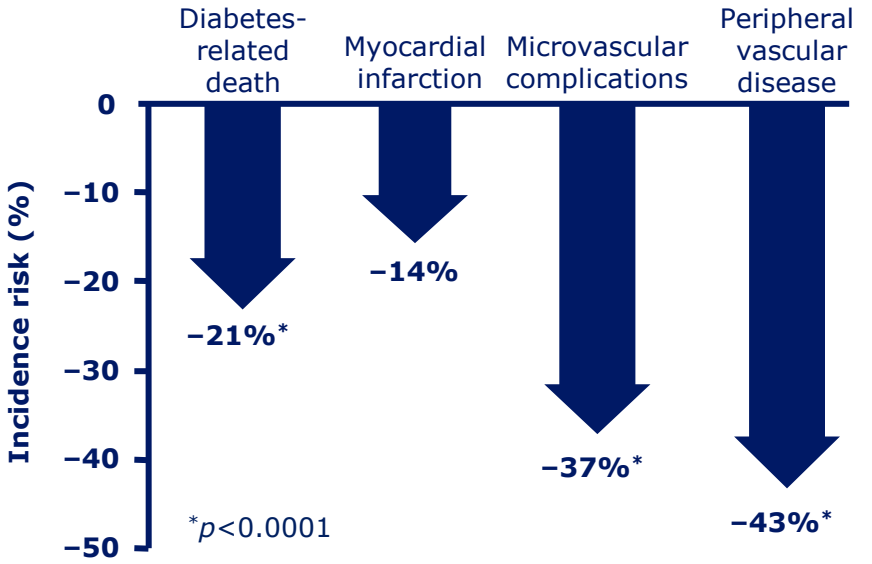
UKPDS: Tight glycaemic control reduces risk of micro- and macrovascular complications

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



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

UKPDS 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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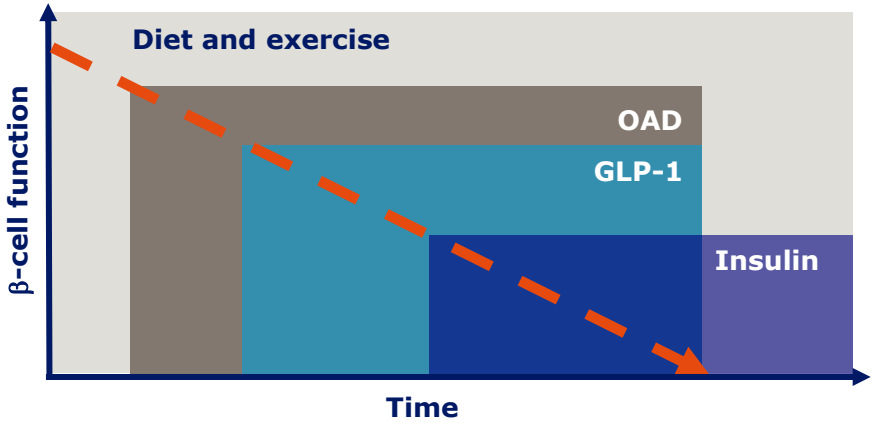
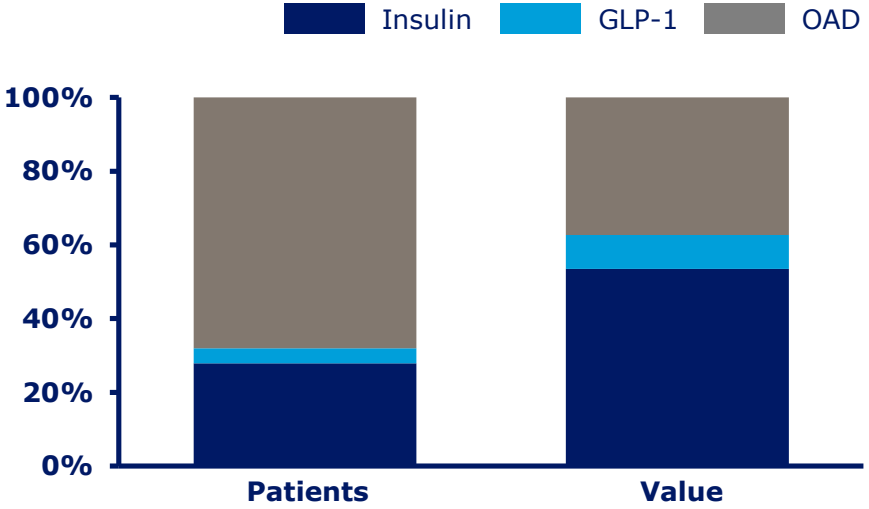
Insulin is the ultimate care for people with diabetes

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 November 2016
Source: IMS PharMetrix claims data, IMS disease analyser, IMS Midas

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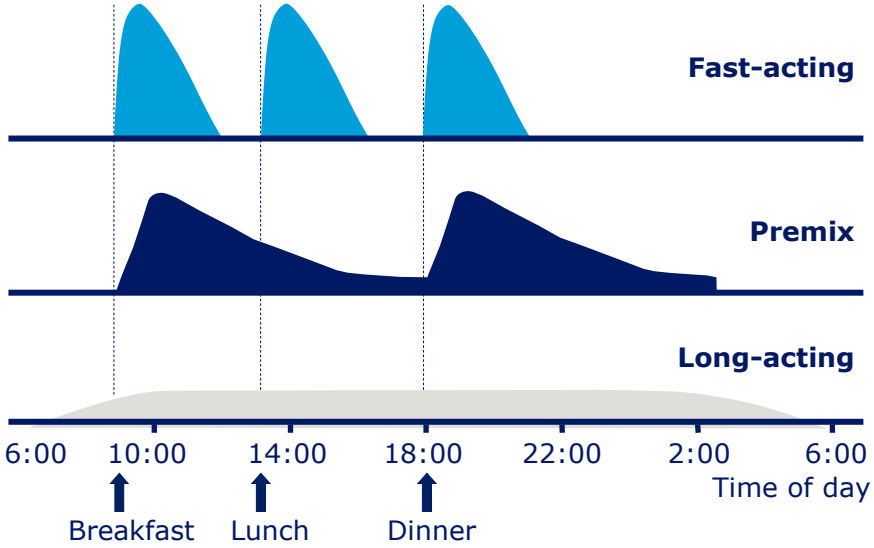
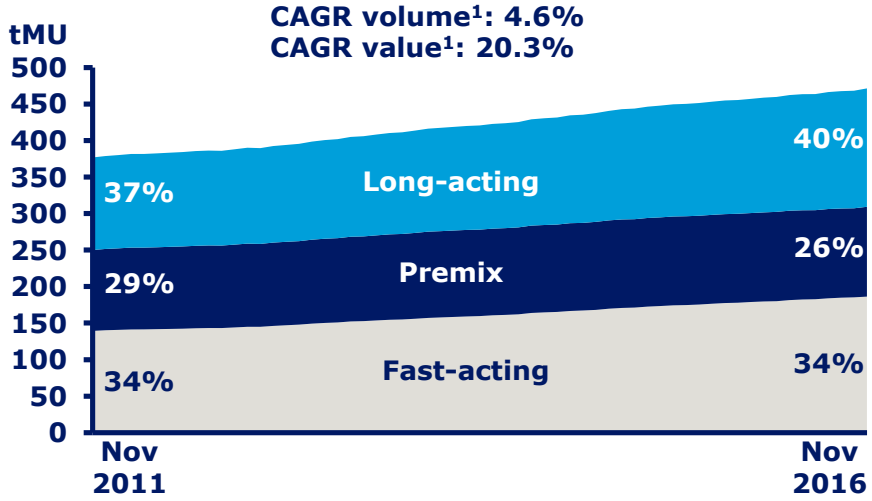
The insulin market is comprised of three segments

Insulin action profiles



Global insulin volume market by segment



[1] CAGR for 5-year period. Value in DKK
Note: US trend data reflect changes to IMS data collection coverage and methodology as of January 2012
Source: IMS Monthly MAT volume and value November 2016 (DKK) figures

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Medications used for the treatment of type 2 diabetes

Commonly prescribed products for the treatment of type 2 diabetes

Class	HbA_{1c} change	Hypo-glycaemia	Weight change	CVD risk factors	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 OAD	None
SGLT-2 inhibitors	0.5 - 0.9	No	Loss	TBD	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 HDL 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

Regions	Diabetes care value market composition	Diabetes care value market share	Insulin volume market composition	Insulin volume market share
North America	30% / 11% / 58%	71% / 29%	52% / 38% / 10%	63% / 37%
Region Europe	43% / 10% / 48%	72% / 28%	41% / 41% / 19%	55% / 45%
Region AAMEO[1]	54% / 43% / 2%	76% / 24%	25% / 26% / 49%	43% / 57%
Region China[1]	47% / 1% / 52%	69% / 31%	16% / 21% / 63%	46% / 54%
Region Japan & Korea	80% / 16% / 3%	89% / 11%	38% / 38% / 23%	51% / 49%
Region Latin America	68% / 27% / 4%	84% / 16%	74% / 19% / 7%	59% / 41%

AAMEO: Africa, Asia, Middle-East and Oceania
[1] IMS only covers part of the channels in AAMEO and Region China
Source: IMS November, 2016 Monthly MAT volume and value (DKK) figures

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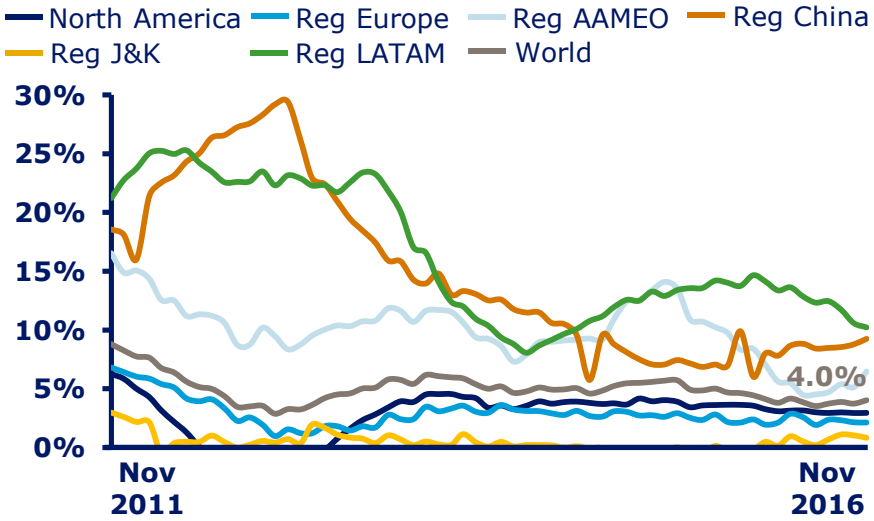
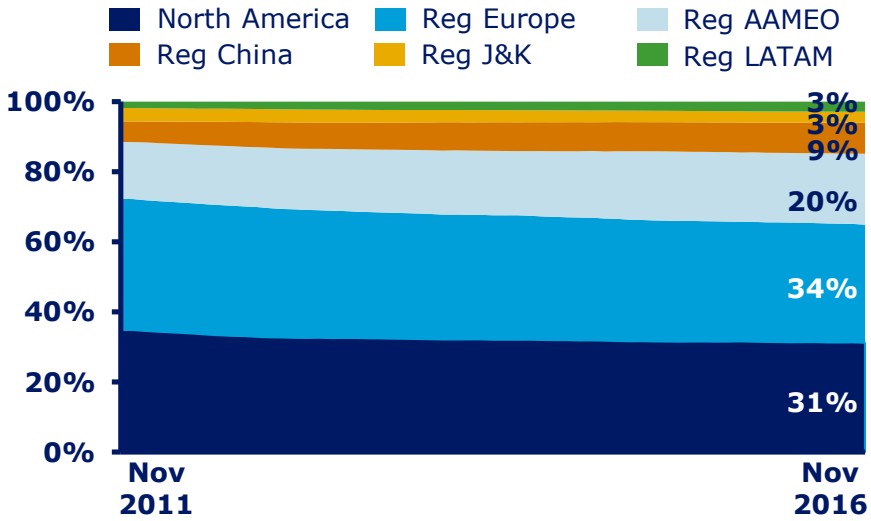
Stable global insulin volume growth

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 November, 2016 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 November, 2016 volume figures

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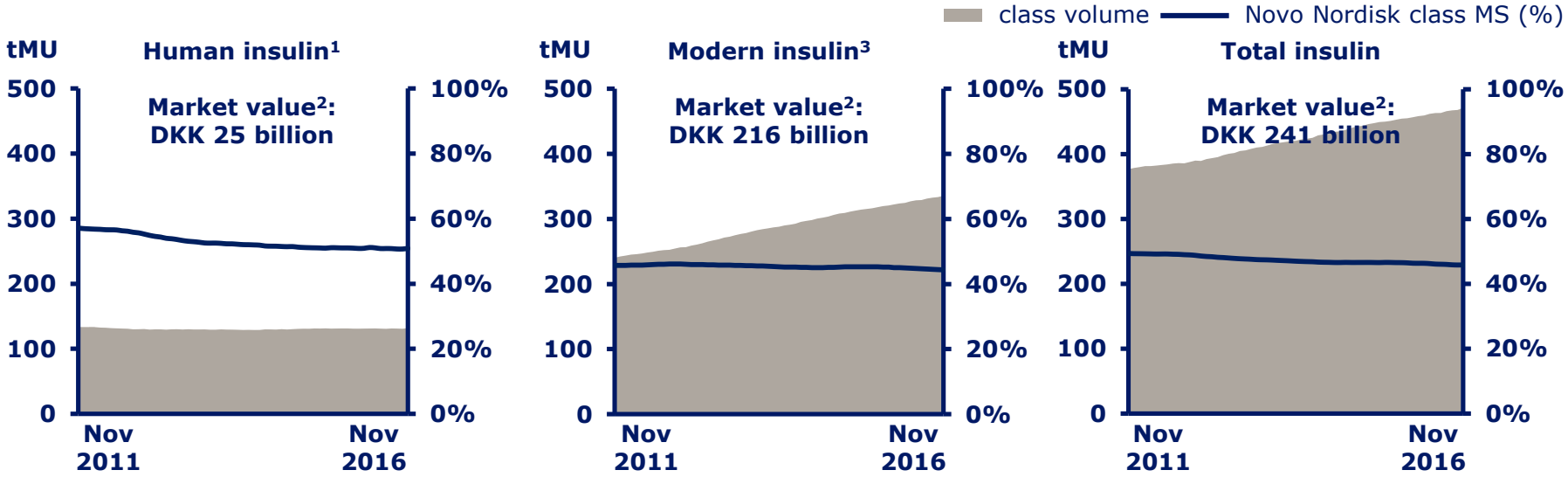
Maintaining global insulin leadership by sustaining modern insulin market share

Novo Nordisk global volume market share across insulin classes



[1] Includes animal insulin. [2] Annual value of total insulin class. [3] Includes new generation insulin
Note: Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS, Monthly MAT November, 2016 value and volume figures

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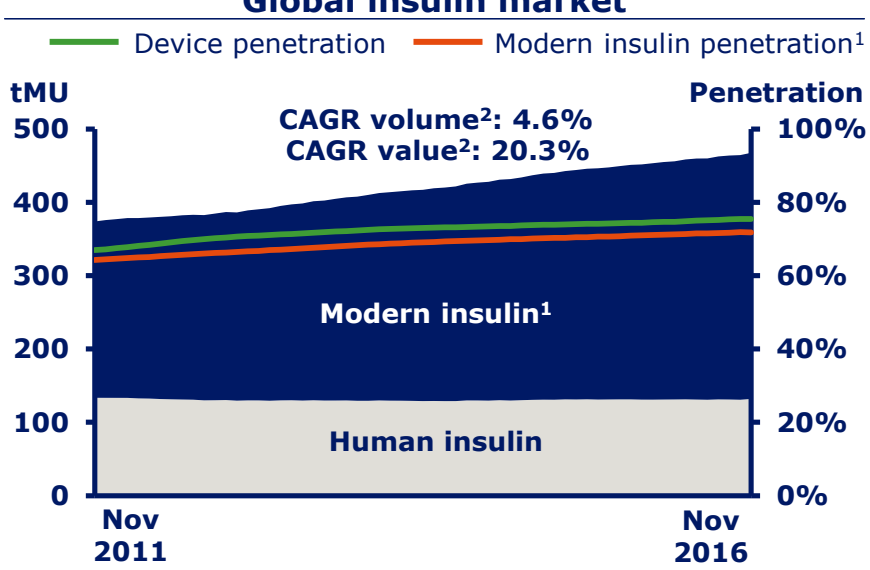
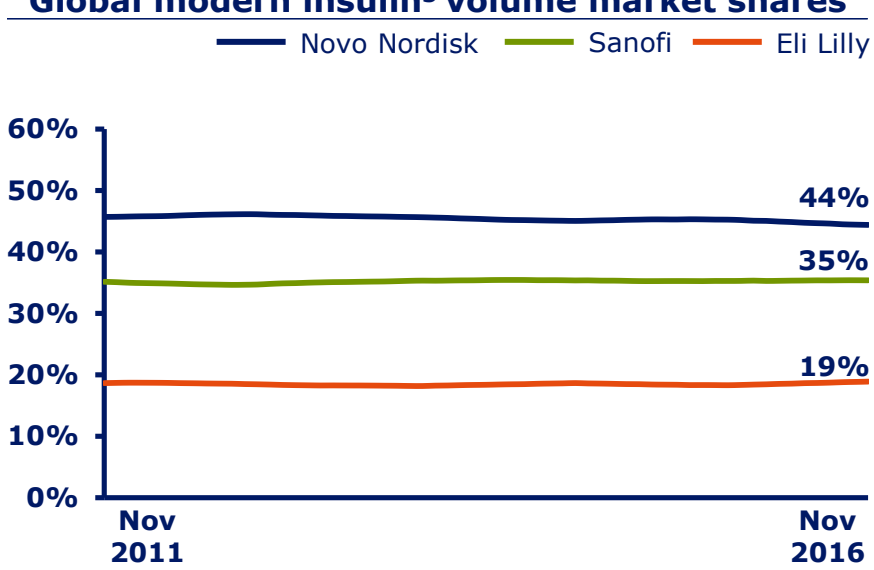
Strong underlying insulin market growth and sustained global volume market share

Global insulin market



[1] Includes 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 November, 2016 volume and value (DKK) figures

Global modern insulin[3] volume market shares



[3] Includes new-generation insulin
Note: Data is sensitive to changes in IMS data collection and reporting methodology, does not add up to 100% due to other players
Source: IMS Monthly MAT November, 2016 volume figures

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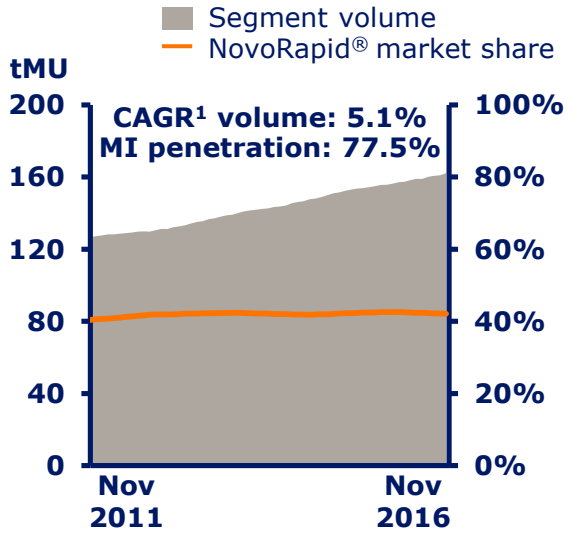
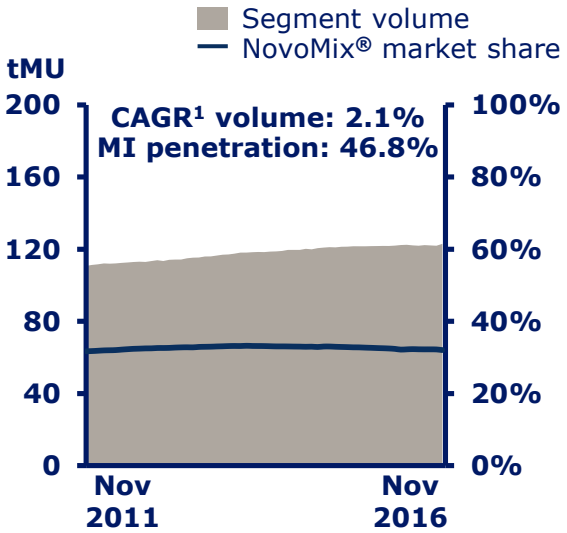
Continued single digit volume growth within the modern insulin segments

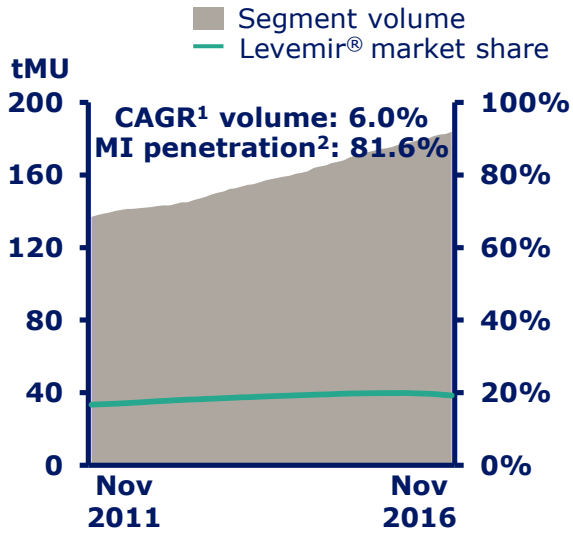
Fast-acting insulin



Premix insulin



Long-acting insulin



[1] CAGR for 5-year period
[2] Includes new-generation Insulin
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 November, 2016 volume figures

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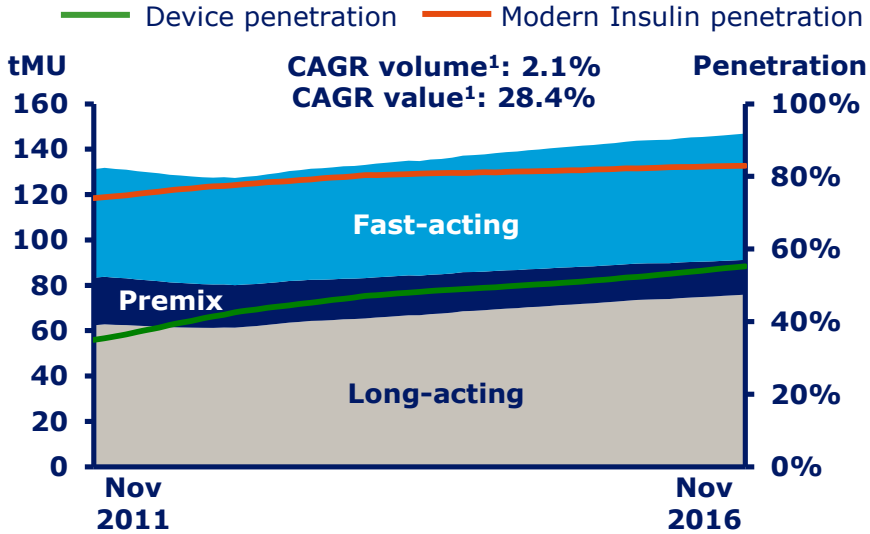
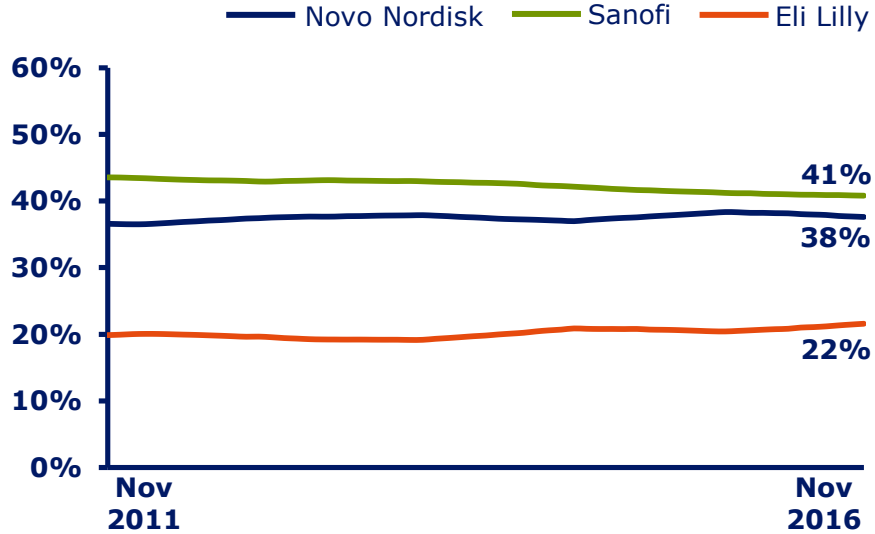
Solid US modern insulin market share

US insulin market by segments



[1] CAGR for 5-year period
Source: IMS Monthly MAT November, 2016 volume and value (DKK) figures

US modern insulin volume market shares



Source: IMS Monthly MAT November, 2016 volume figures

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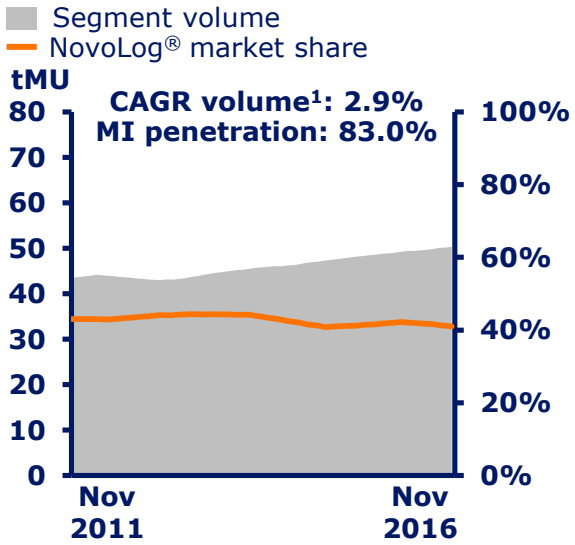
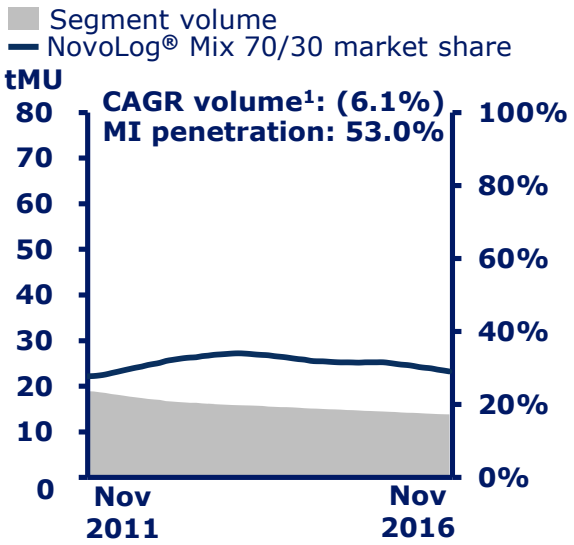
Novo Nordisk's modern insulins maintain market share in the US insulin market

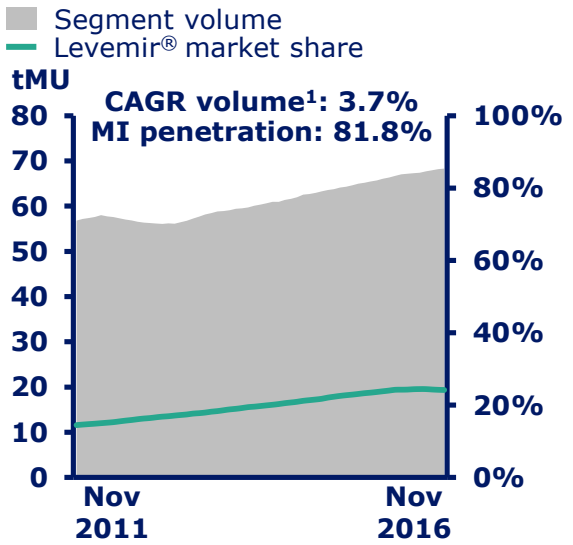
US fast-acting insulin



US premix insulin



US long-acting insulin



[1] CAGR for 5-year period
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 November, 2016 volume figures

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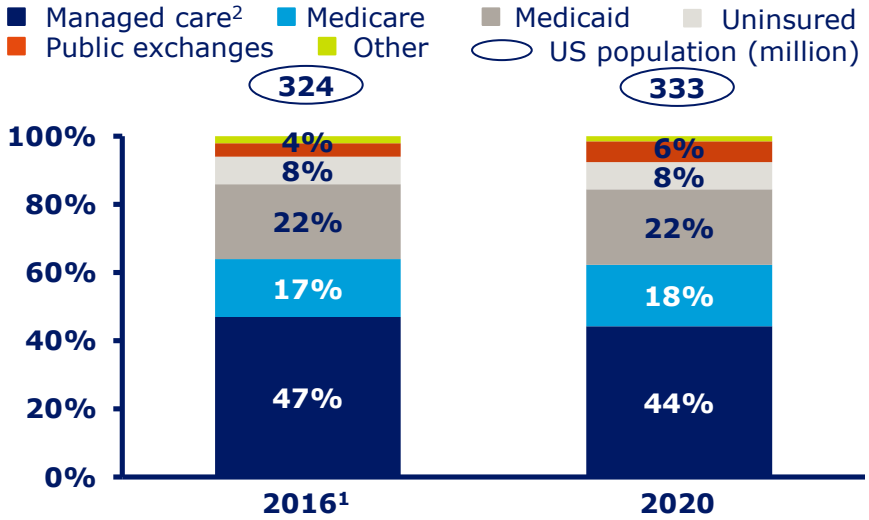
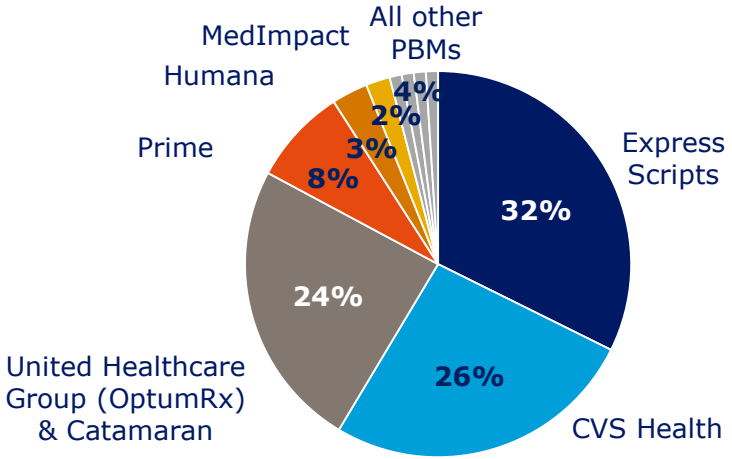
US health insurance is dominated by few large commercial payers with slow expansion of public insurance coverage

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



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



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

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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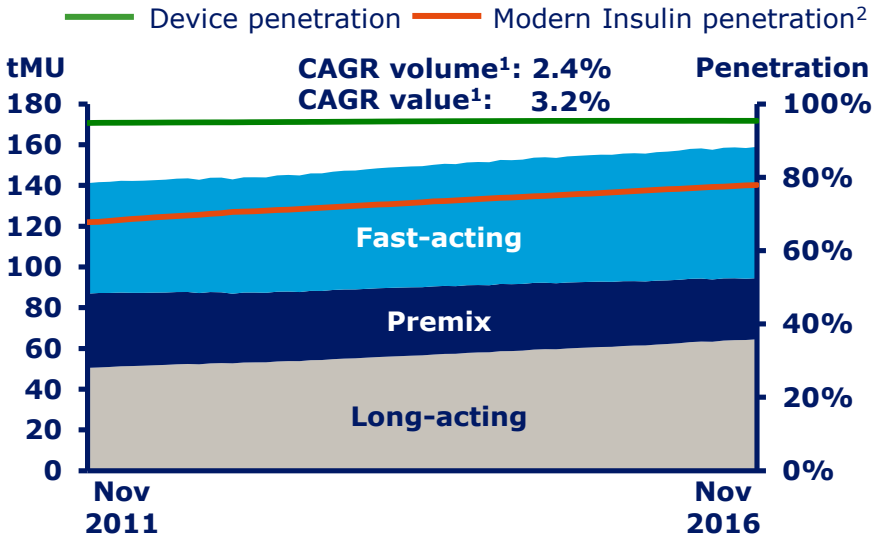
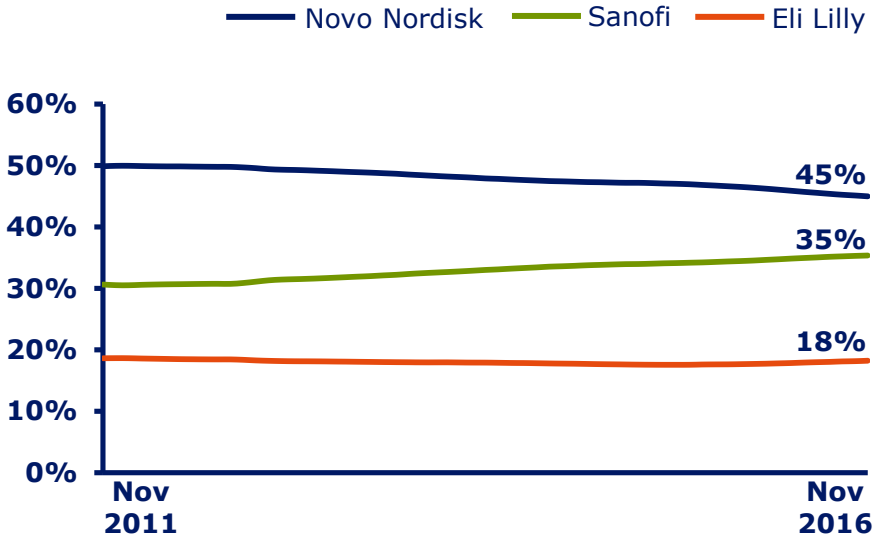
Maintained leadership position in the European modern insulin market

European insulin market by segments



[1] CAGR for 5-year period
[2] Includes new-generation insulin
Source: IMS Monthly MAT November, 2016 volume and value (DKK) figures

European modern insulin[3] volume market shares



[3] Includes new-generation insulin
Source: IMS Monthly MAT November, 2016 volume figures, numbers do not add up to 100% due to smaller insulin manufacturers

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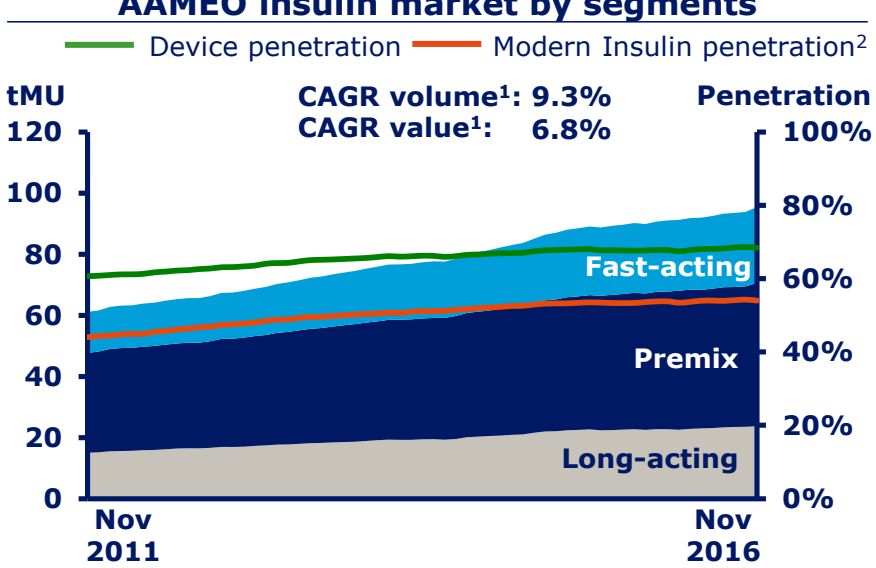
Stable leadership position in Africa, Asia, Middle-East and Oceania (AAMEO)

AAMEO insulin market by segments



[1] CAGR for 5-year period. [2] Includes new generation insulin.
Note: IMS only covers the following 8 markets in AAMEO (retail data): Algeria, Egypt, India, New Zealand, Russia, Saudi Arabia, South Africa & Turkey
Source: IMS Monthly MAT November, 2016 volume and value (DKK) figures

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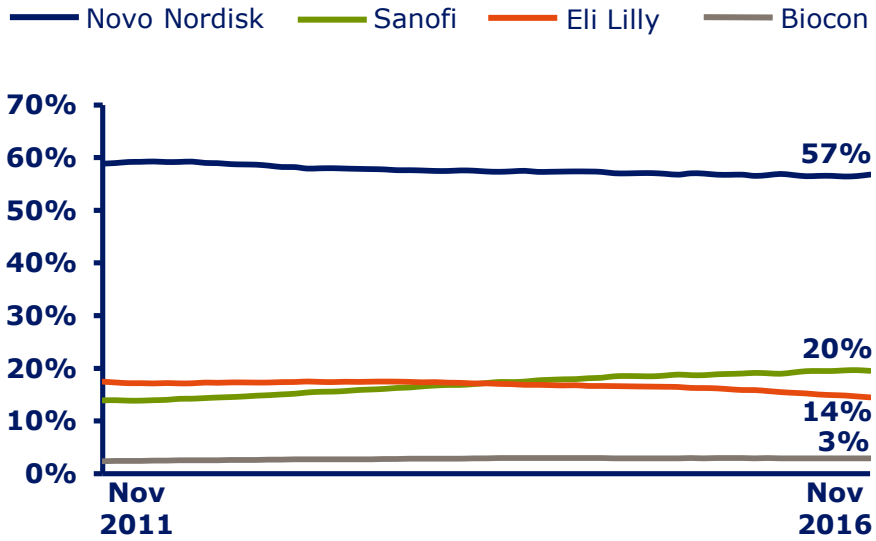
AAMEO insulin volume market shares



Source: IMS Monthly MAT November, 2016 volume figures, numbers do not add up to 100% due to smaller insulin manufacturers

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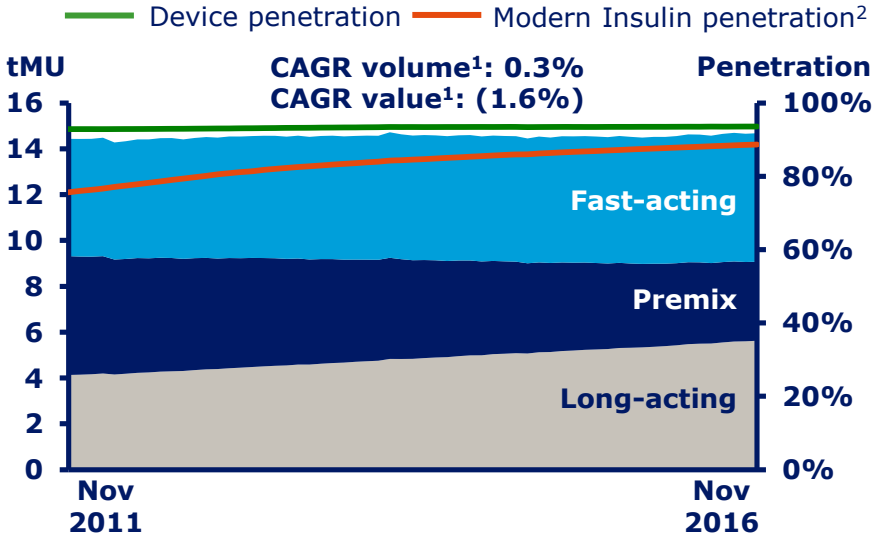
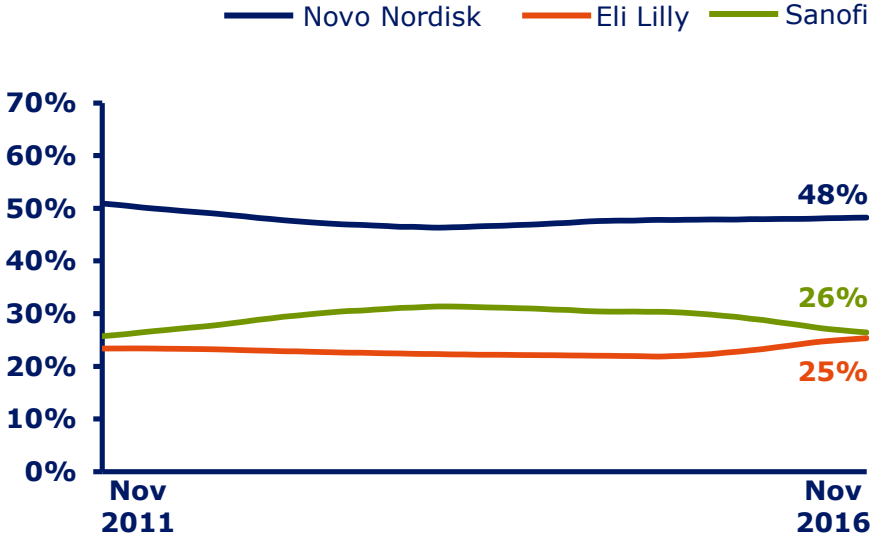
Solid market leadership position in Japan & Korea

Japan & Korea insulin market by segments



[1] CAGR for 5-year period
[2] Includes new-generation insulin
Source: IMS Monthly MAT November, 2016 volume and value (DKK) figures

Japan & Korea modern insulin volume market shares



Source: IMS Monthly MAT November, 2016 volume figures

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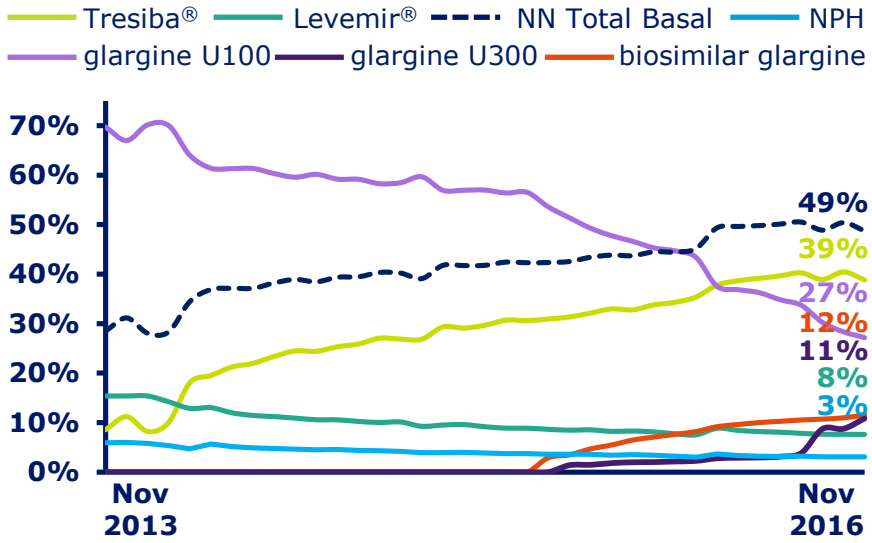
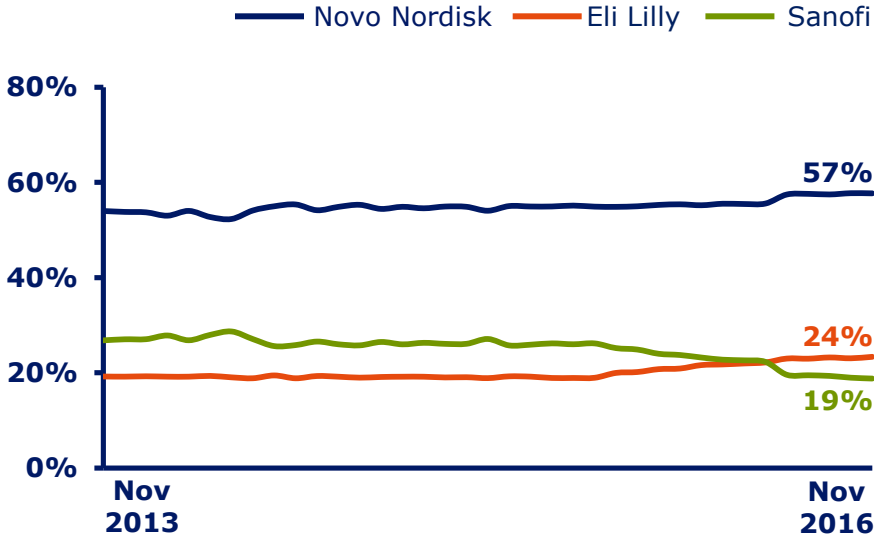
Solid Tresiba® performance strengthens basal insulin market share in Japan

Japanese basal value market shares



Source: IMS Monthly November, 2016 value figures

Japanese total insulin value market shares



Source: IMS Monthly November, 2016 value figures

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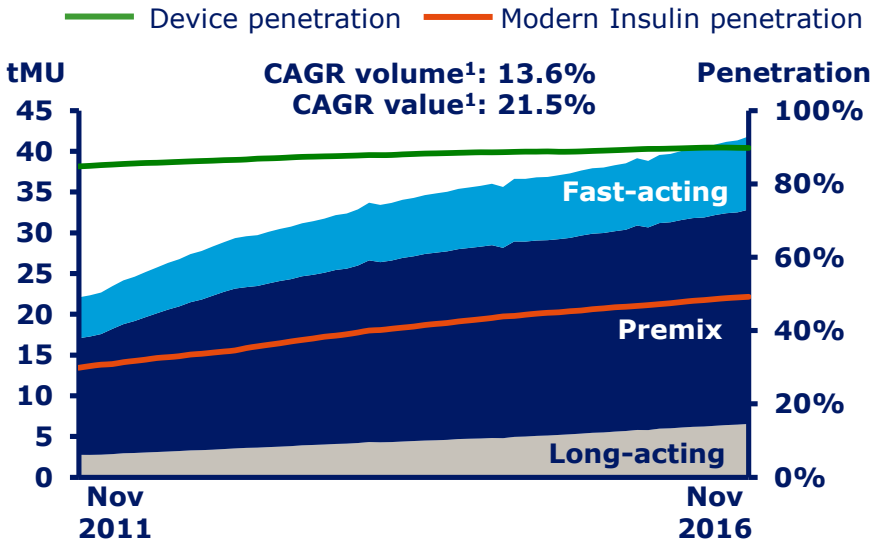
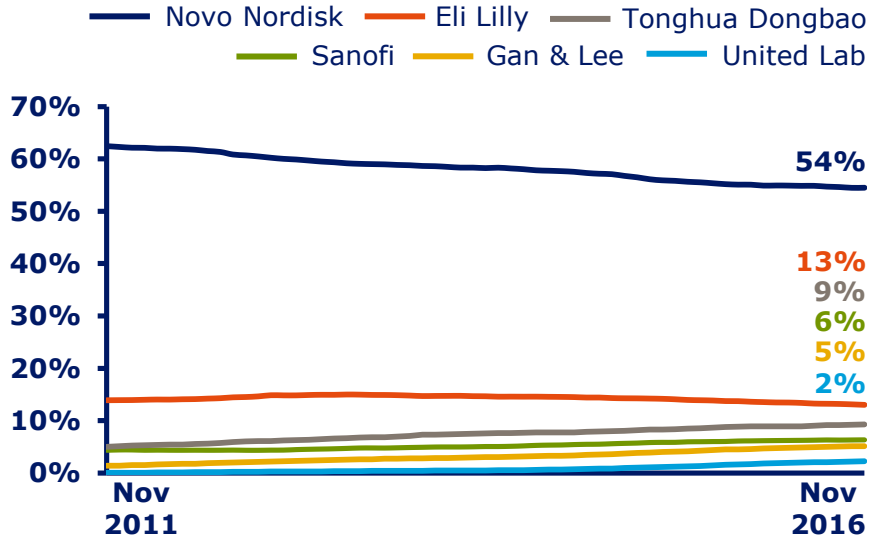
Solid growth in the Chinese insulin market

Chinese insulin market by segments



[1] CAGR for 5-year period
Note: IMS covers around 50% of the total Chinese market (hospital data)
Source: IMS Monthly MAT November, 2016 volume and value (DKK) figures

Chinese insulin volume market shares



Note: Only selected competitors shown
Source: IMS Monthly MAT November, 2016 volume figures, numbers do not add up to 100% due to smaller insulin manufacturers not included

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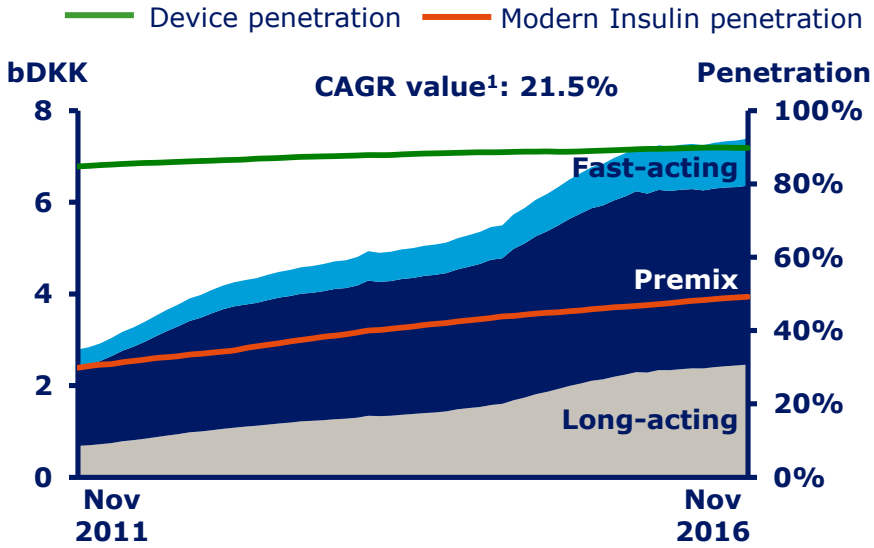
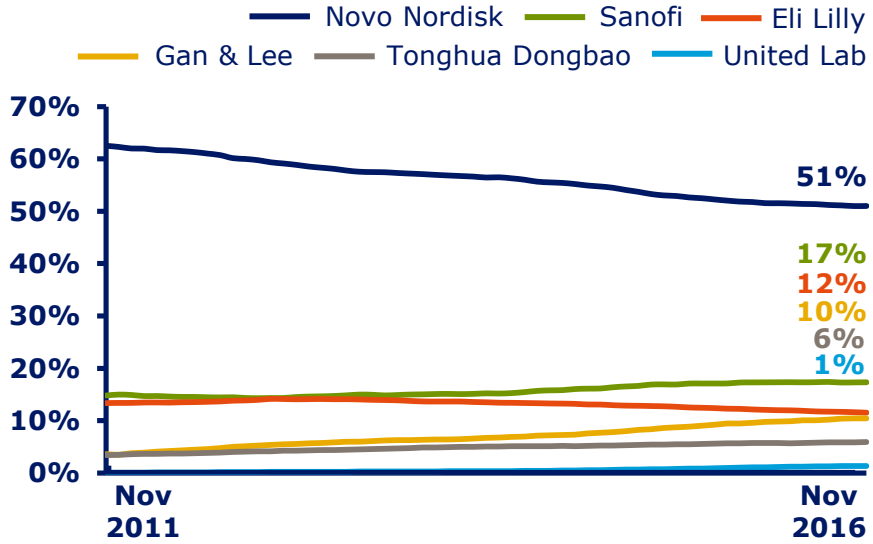
Continued expansion of the modern insulin market in China

Chinese insulin market by segments



[1] CAGR for 5-year period
Note: IMS covers around 50% of the total Chinese market (hospital data)
Source: IMS Rolling MAT November, 2016 value (DKK) figures

Chinese total insulin value market shares



Note: Only selected competitors
Source: IMS Rolling MAT November, 2016 value figures, numbers do not add up to 100% due to smaller insulin manufacturers not included

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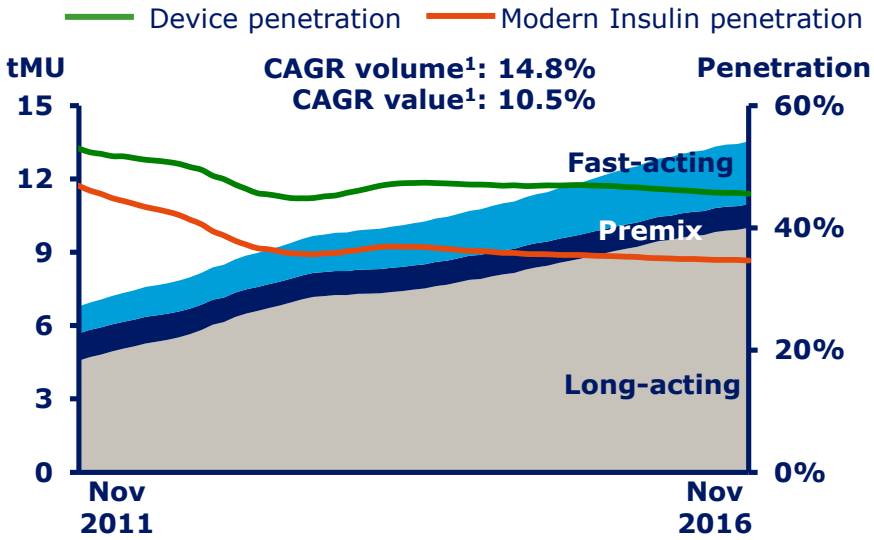
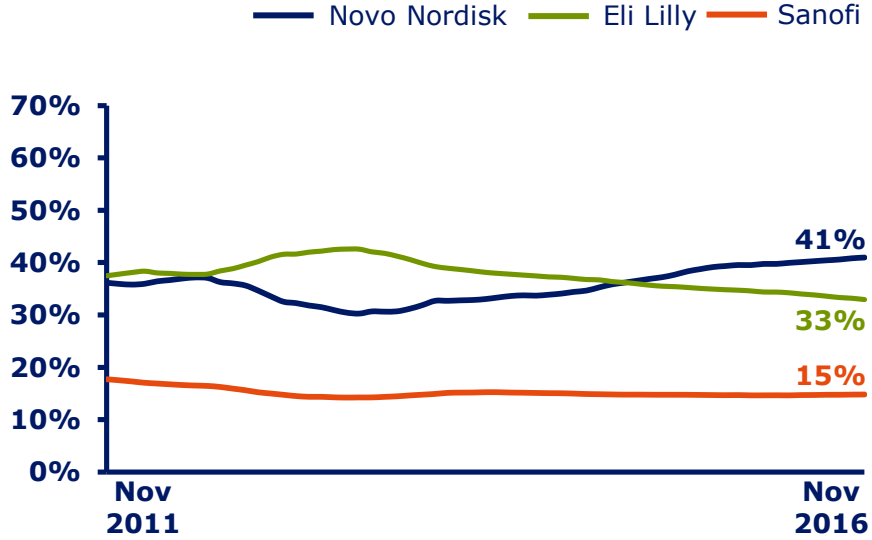
Strengthened insulin volume market share in Latin America

Latin America insulin market by segments



[1] CAGR for 5-year period
Note: IMS only covers the following 4 markets in LATAM (retail data): Argentina, Brazil, Colombia, Mexico
Source: IMS Monthly MAT November, 2016 volume and value (DKK) figures

Latin America insulin volume market shares



Note: Only top-3 shown
Source: IMS Monthly MAT November, 2016 volume figures, numbers do not add up to 100% due to smaller insulin manufacturers not included

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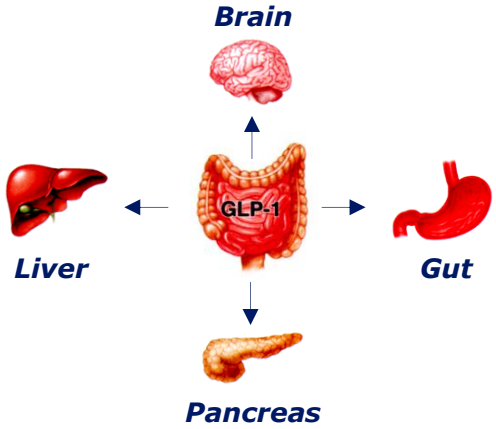
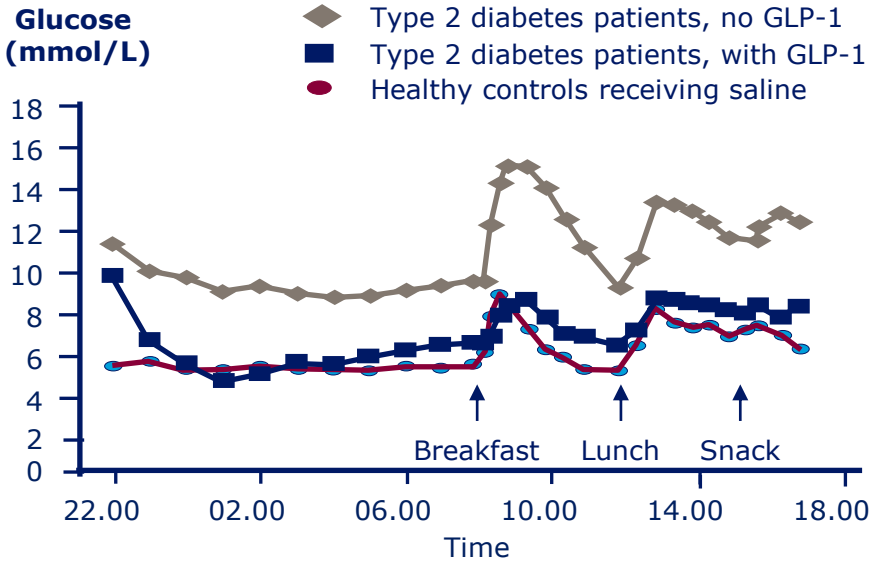
GLP-1 effect dependent on level of blood glucose – which reduces risk of hypoglycaemia

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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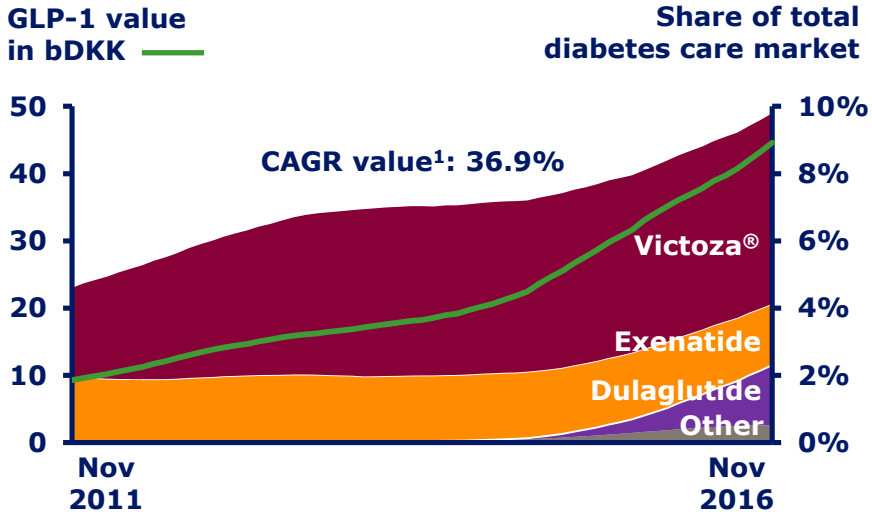
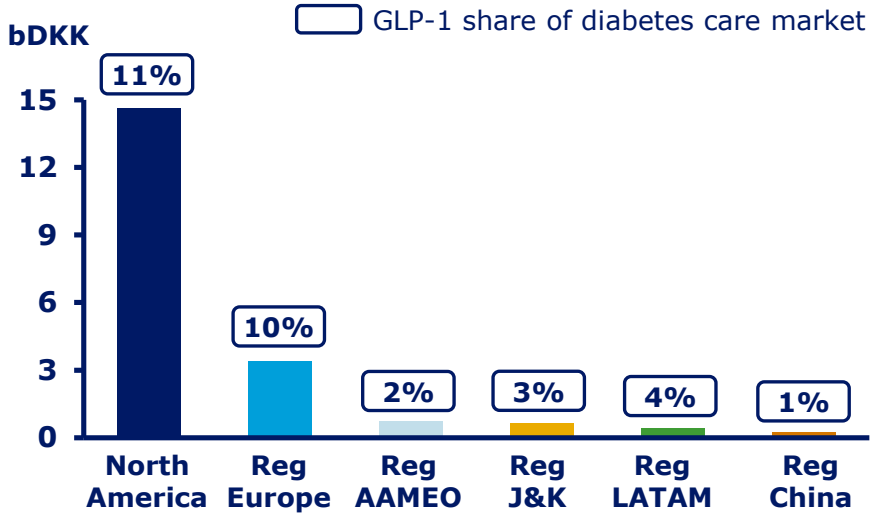
The 9% GLP-1 share of the global diabetes care market is increasing, opportunities for further penetration remain

Global GLP-1 market



[1] CAGR for 5-year period
Source: IMS Monthly MAT November, 2016 value figures (DKK)

Victoza® sales and GLP-1 value market share of total diabetes care market



Reg: Region; AAMEO: Africa, Asia, Middle-East and Oceania; J&K: Japan & Korea; LATAM: Latin America
Source: Novo Nordisk reported sales for full year 2016 and IMS November, 2016 data

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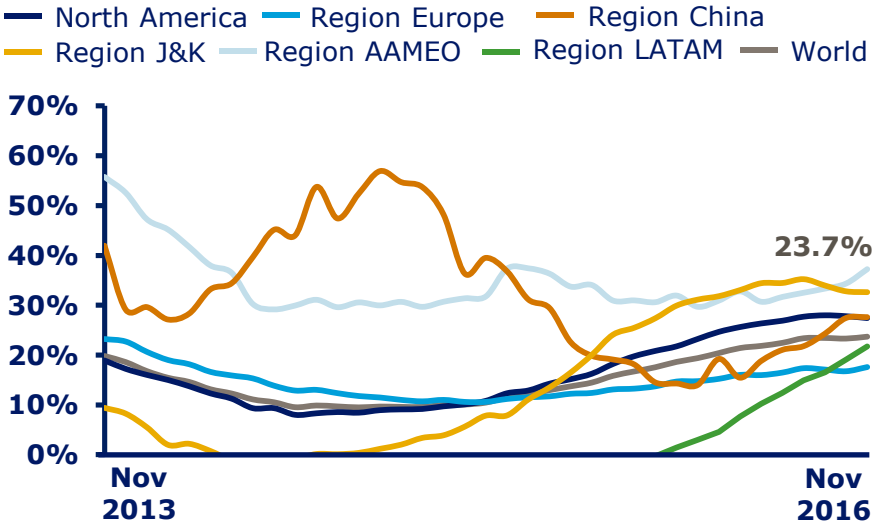
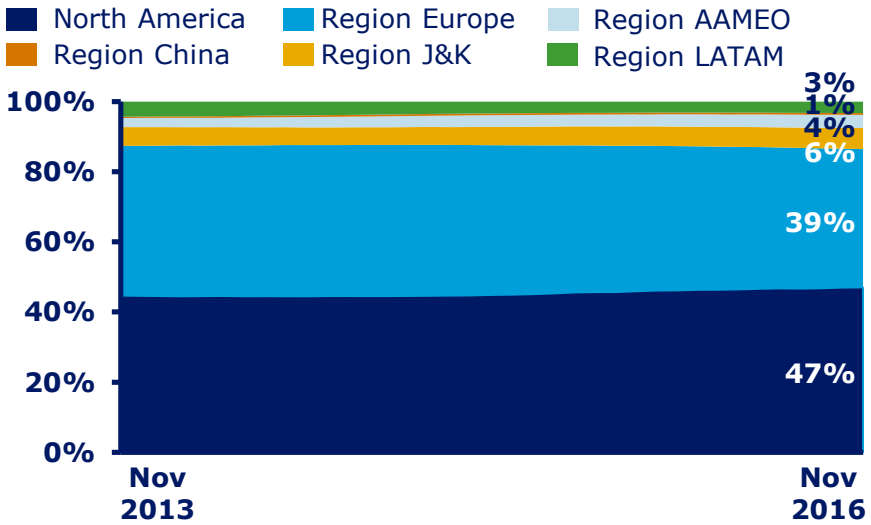
Strong GLP-1 volume growth across the regions

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 November, 2016 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 November, 2016 volume figures

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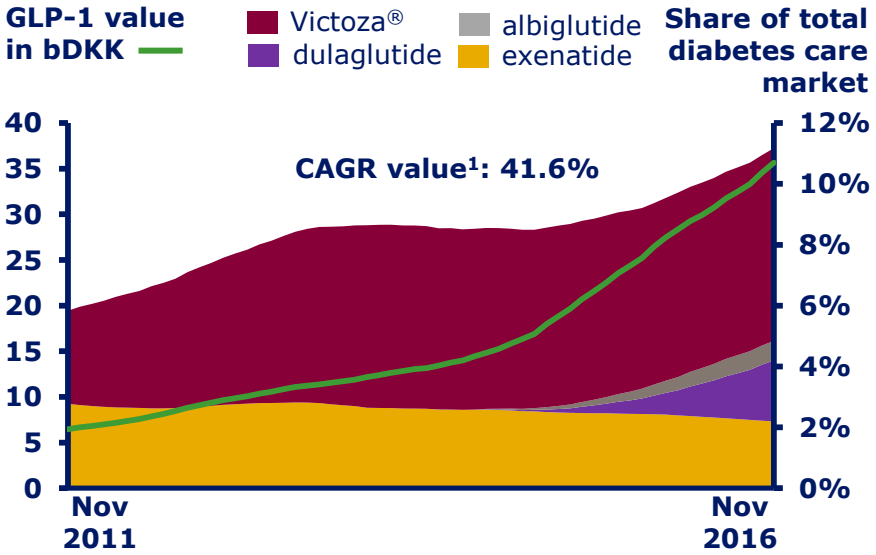
The GLP-1 segment accounts for 11% of the total diabetes care market in North America

North America GLP-1 market



[1] CAGR for 5-year period
Source: IMS Monthly MAT November, 2016 value figures (DKK)

Key observations for Victoza® in the US market

- Victoza® value market share within the GLP-1 segment is 56%
- Around 85% of commercial and around 90% of Medicare Part D lives are covered without restrictions
- Around 65% of new patients are new to treatment or from OAD-only regimens
- Close to 70% of prescriptions are for the higher dose 1.8 mg (3-pen pack)[1]

[1] IMS monthly NPA data, November 2016

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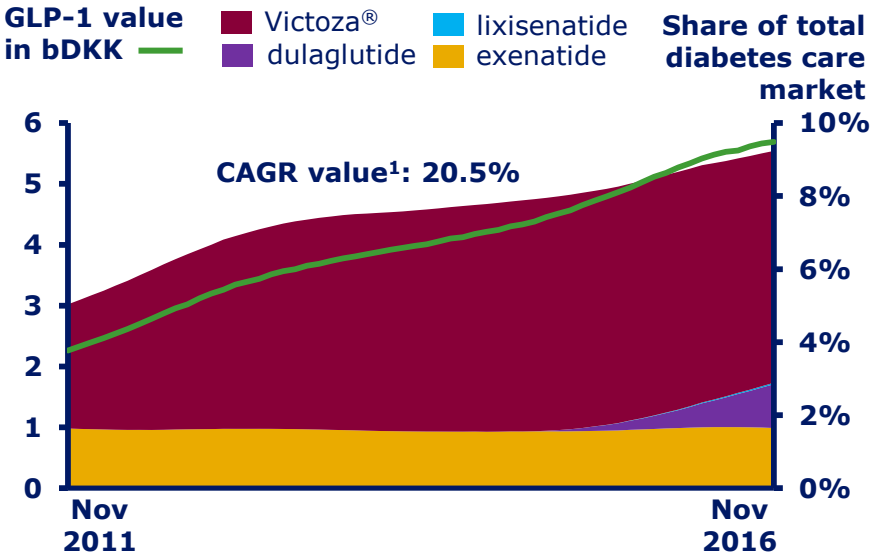
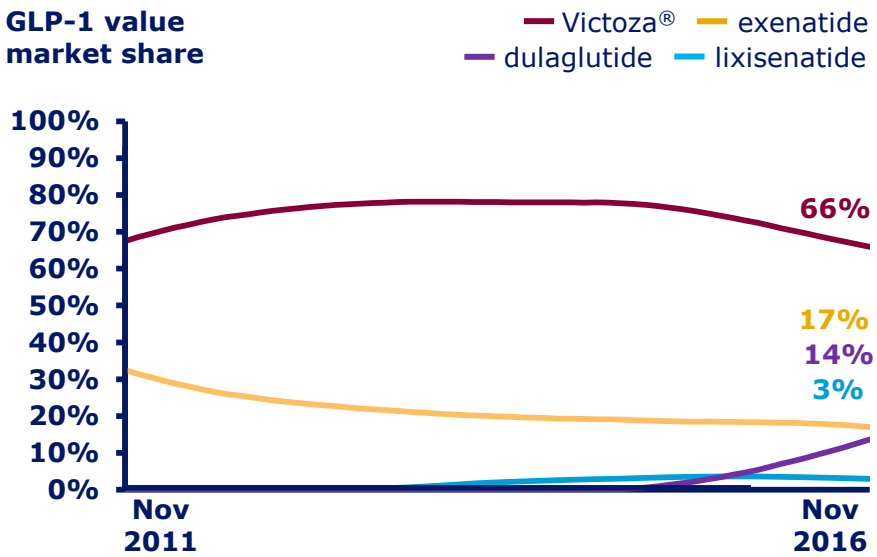
The GLP-1 segment accounts for 10% of the total diabetes care market in Europe

European GLP-1 market



[1] CAGR for 5-year period
Source: IMS Monthly MAT November, 2016 value figures (DKK)

Victoza® value market share in Europe



Source: IMS Monthly MAT November, 2016 value figures (DKK)

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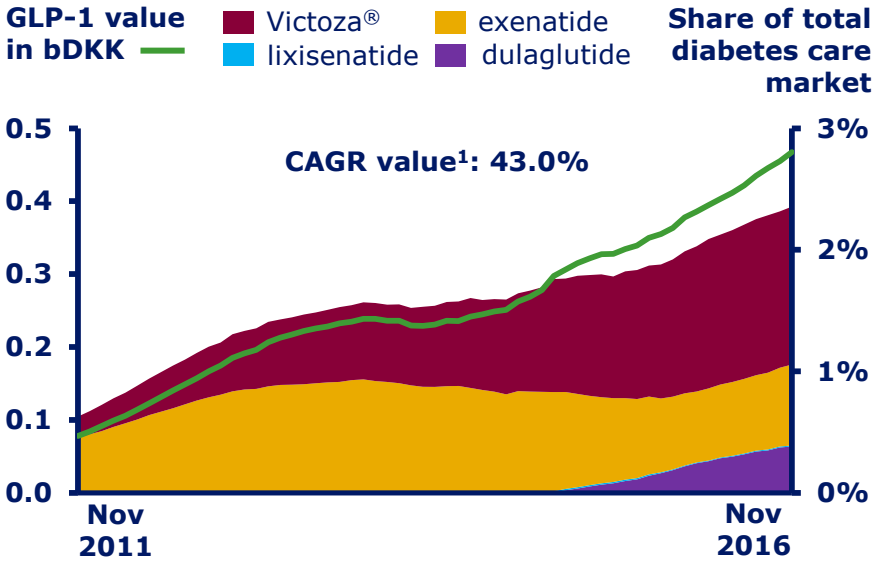
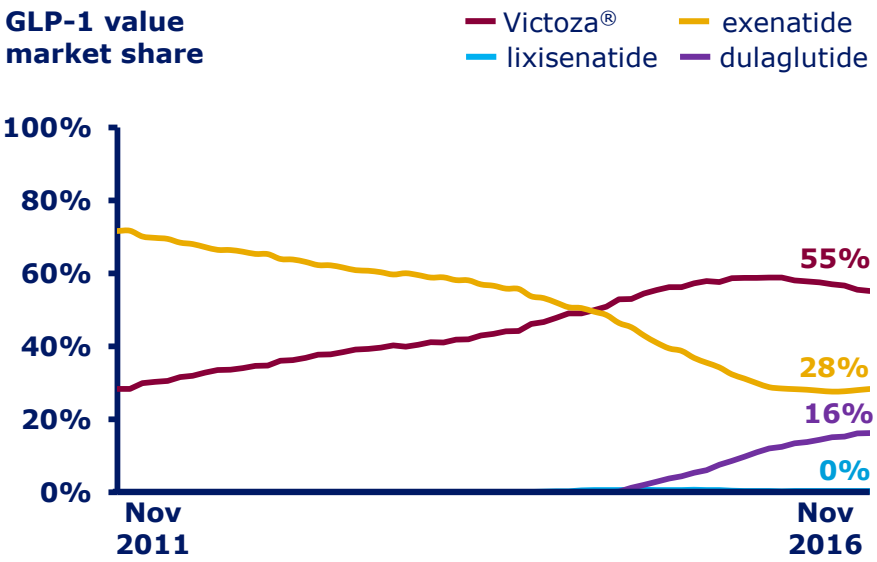
The GLP-1 segment accounts for around 2% of the total diabetes care market in AAMEO

AAMEO GLP-1 market



[1] CAGR for 5-year period
AAMEO: Africa, Asia, the Middle East and Oceania
Source: IMS Monthly MAT November, 2016 value figures (DKK)

Victoza® value market share in AAMEO



Source: IMS Monthly MAT November, 2016 value figures (DKK)

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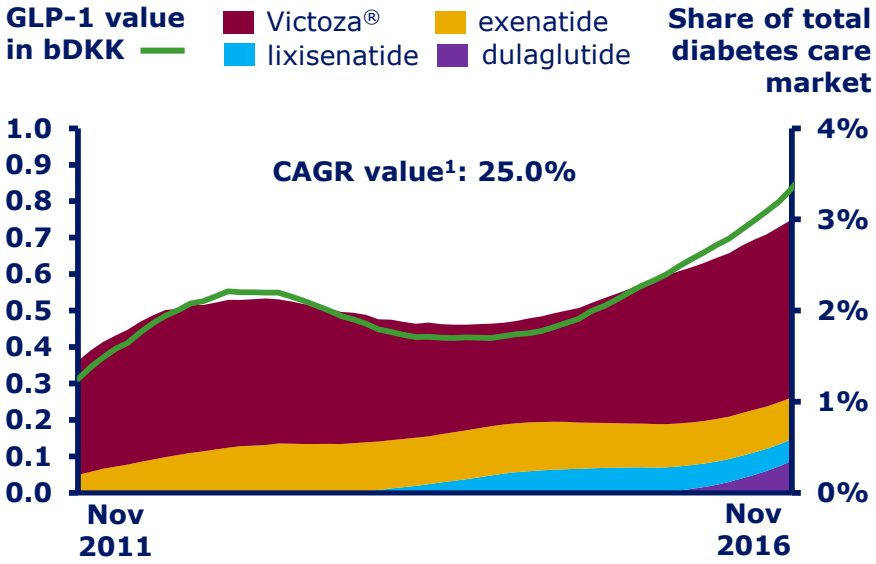
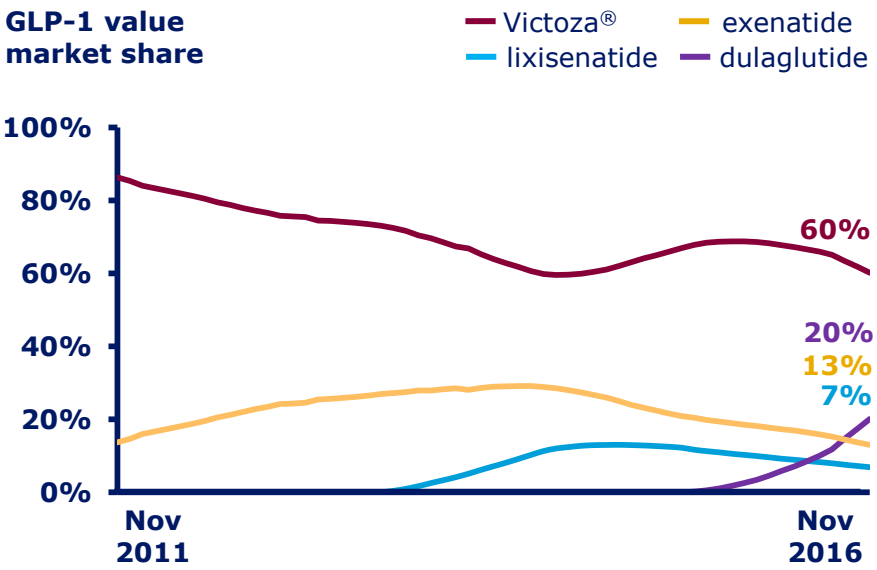
The GLP-1 segment accounts for around 4% of the total diabetes care market in Japan & Korea

Japan & Korea GLP-1 market



[1] CAGR for 5-year period
Source: IMS Monthly MAT November, 2016 value figures (DKK)

Victoza® value market share in Japan & Korea



Source: IMS Monthly MAT November, 2016 value figures (DKK)

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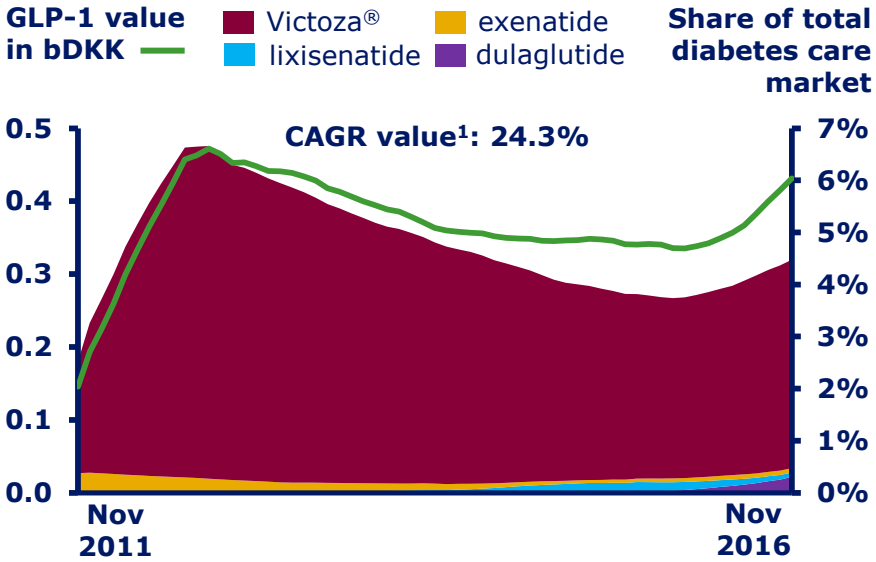
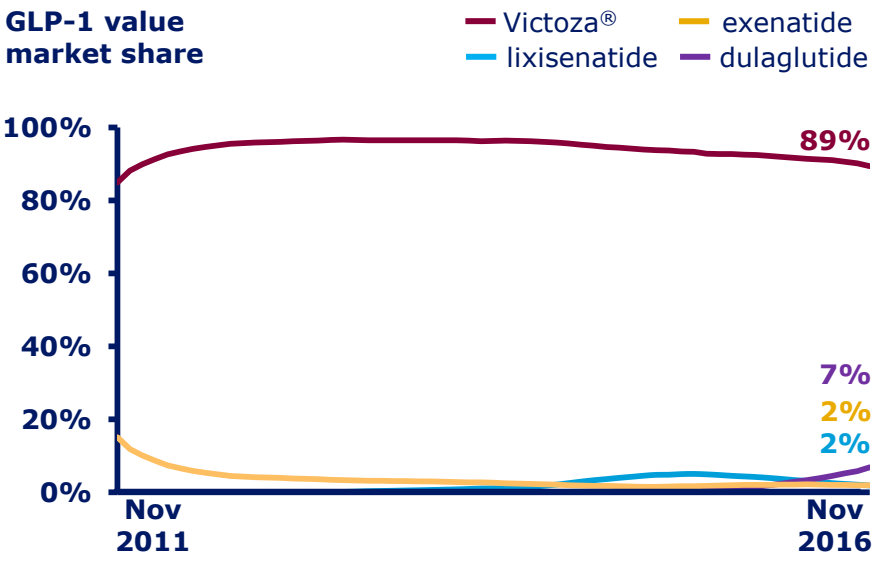
The GLP-1 segment accounts for around 4% of the total diabetes care market in Latin America

Latin America GLP-1 market



[1] CAGR for 5-year period
Source: IMS Monthly MAT November, 2016 value figures (DKK)

Victoza® value market share in Latin America



Source: IMS Monthly MAT November, 2016 value figures (DKK)

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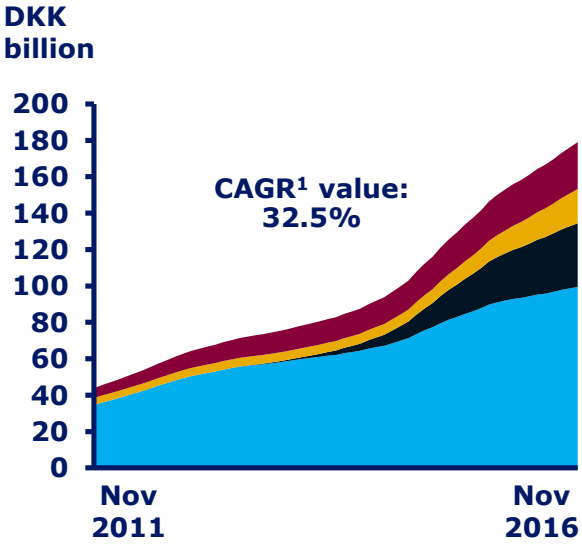
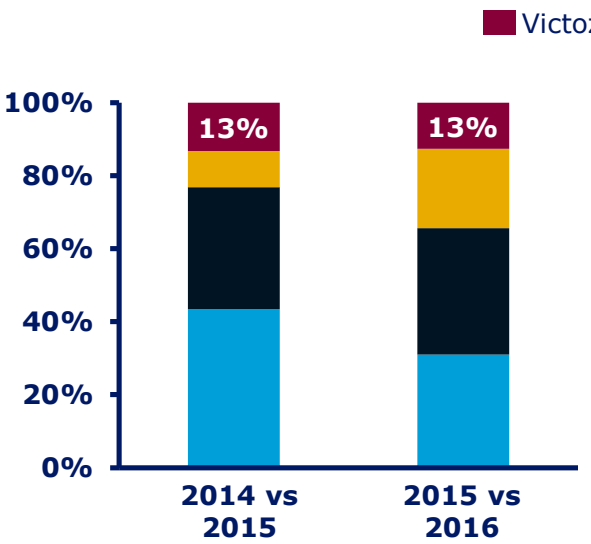
Victoza® maintains a strong position in the global DPP-IV, GLP-1 and SGLT-2 segment

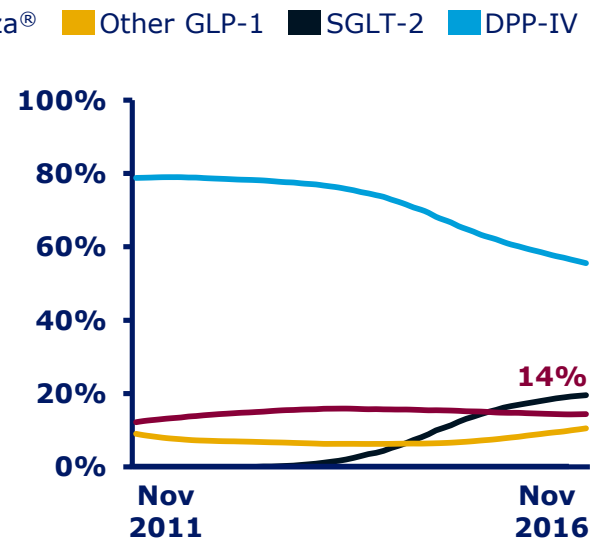
Segment value



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 November 2016 value figures

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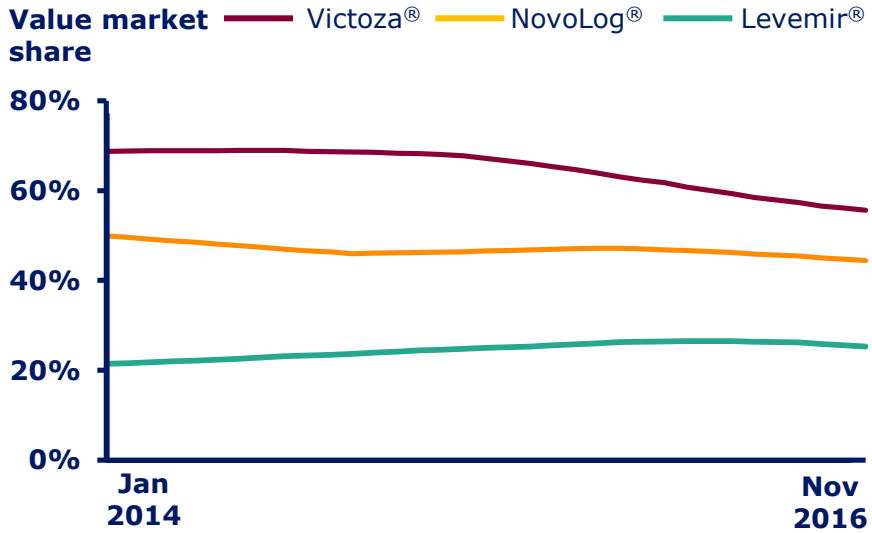
Key Novo Nordisk diabetes care products remain broadly available in the US

Value market shares of key Novo Nordisk products in the US



Source: IMS NSP November 2016; data displayed as MAT value share
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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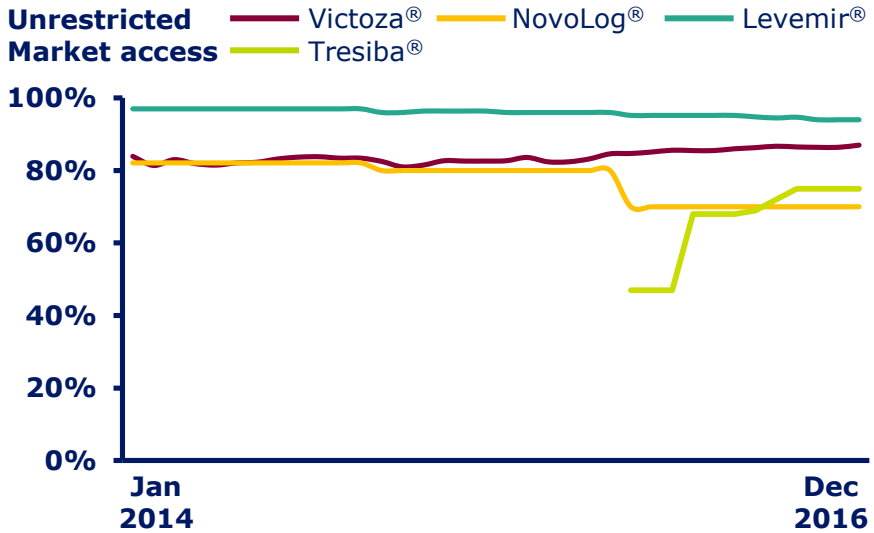
% unrestricted market access of key Novo Nordisk products in the US



Source: Unrestricted access based on Market volume, December 2016
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; Tresibe® launched in January 2016

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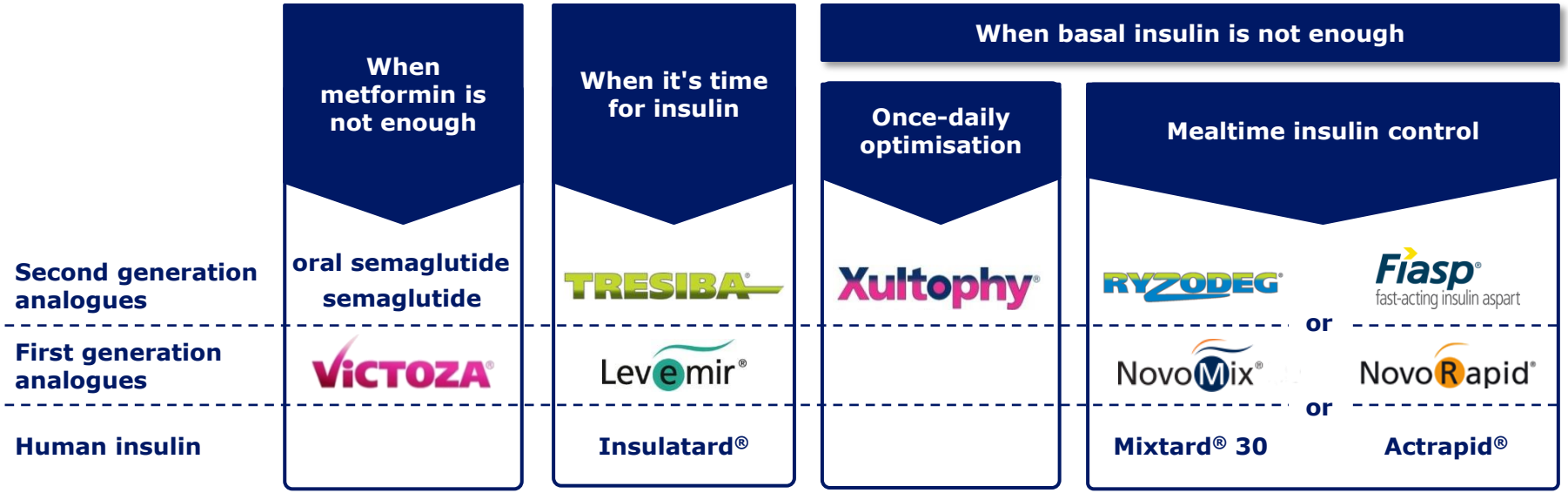
Novo Nordisk current and future product portfolio covers the type 2 diabetes treatment flow[1]

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.
Xultophy®/Xultophy® 100/3.6 (NN9068)	Combination of insulin degludec and liraglutide	Type 2					
Fast-acting insulin aspart (NN1218)[1]	New formulation of insulin aspart	Type 1+2					
Semaglutide (NN9535)	Once-weekly GLP-1 analogue	Type 2					
OG217SC (NN9924)	Long-acting 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					
Mealtime insulin (NN1406)	Liver-preferential mealtime insulin	Type 1+2					
PYY diabetes (NN9748)	Peptide YY analogue	Type 1+2					
Semaglutide QD (NN9536)	Once-daily GLP-1 analogue	Obesity					
G530S (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					
Semaglutide NASH (NN9931)	Long-acting once-daily GLP-1 analogue	NASH					

[1] Approved in EU on 10 Jan 2017

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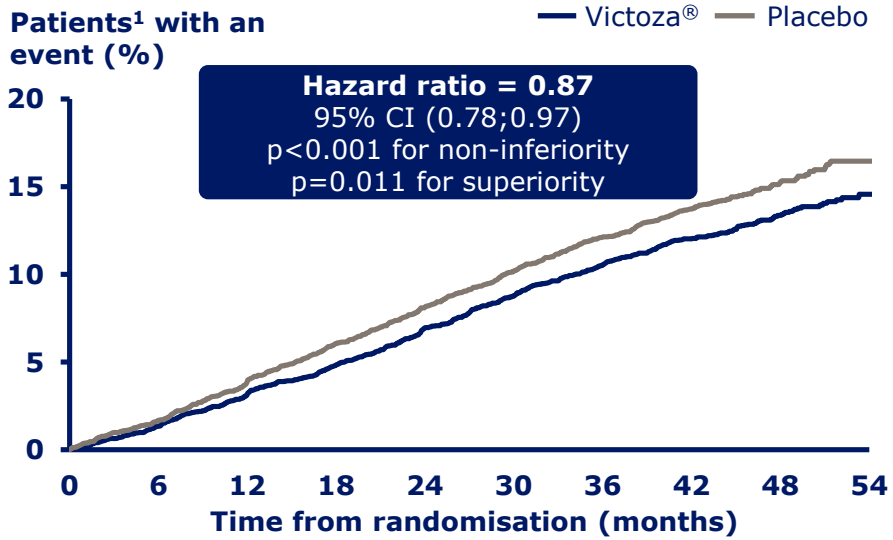
Victoza® statistically significantly reduced the risk of major adverse cardiovascular events in the LEADER trial

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
- The result was consistent across sensitivity analyses
- Victoza® appeared to have a safe and well tolerated profile, generally consistent with previous studies for Victoza®

CV: Cardiovascular

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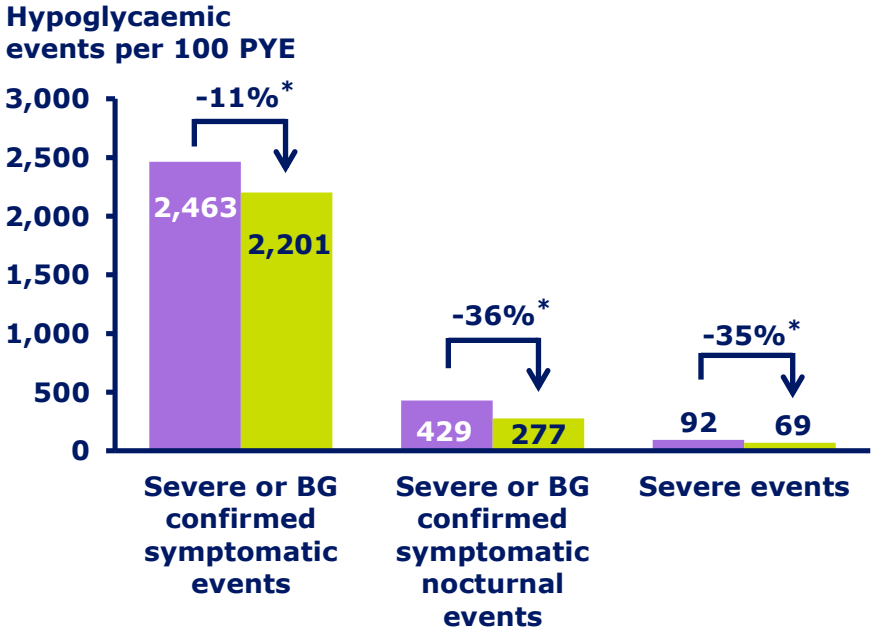
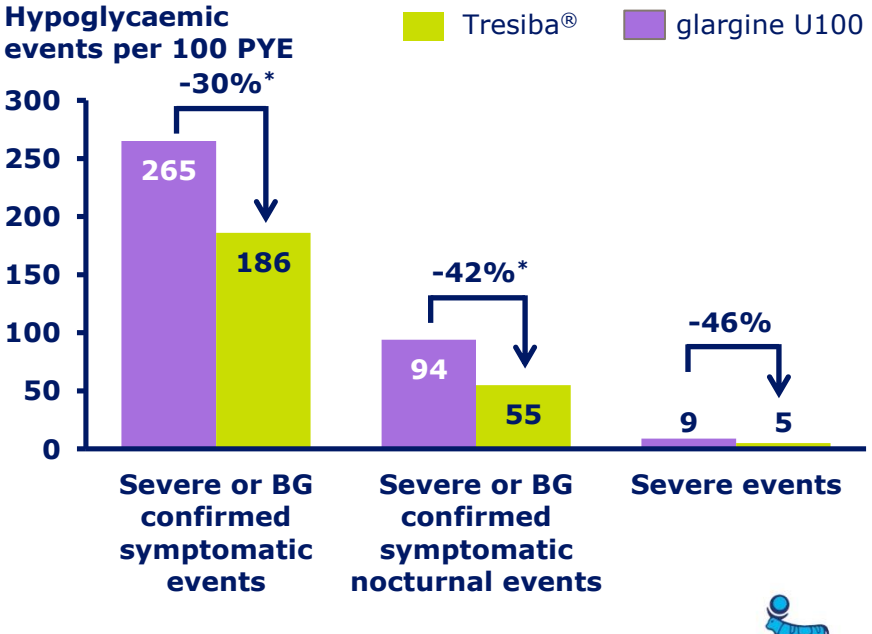
Tresiba® shows lower rate of hypoglycaemia than insulin glargine U100 in SWITCH trials – filed in H2 2016

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

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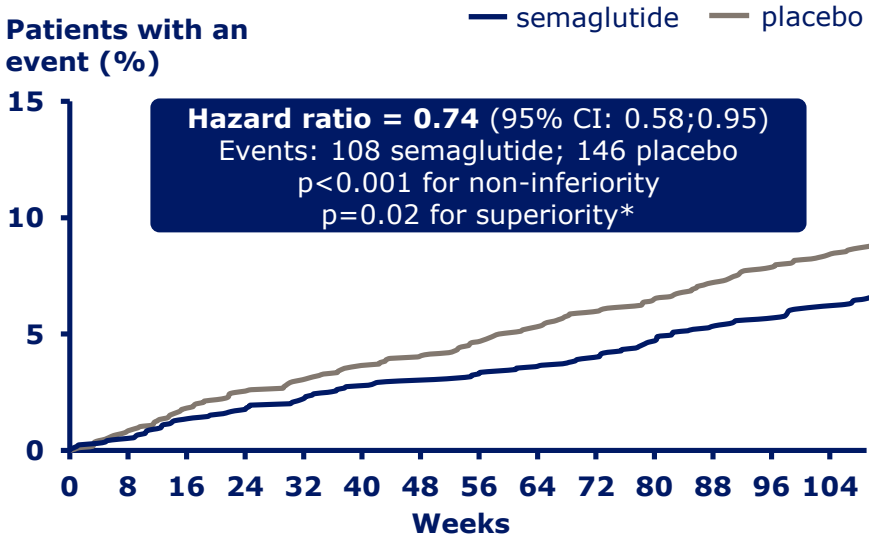
Semaglutide significantly reduced the risk of major cardiovascular events with 26% vs placebo in SUSTAIN 6

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%** driven by reductions of non-fatal stroke by 39%* and non-fatal MI by 26%
- Semaglutide significantly reduced the risk of nephropathy while increasing the risk of retinopathy complications
- **Next step**: Novo Nordisk expect to submit an NDA for semaglutide to regulatory authorities in Q4 2016

* P-value <0.001
NDA: New drug application

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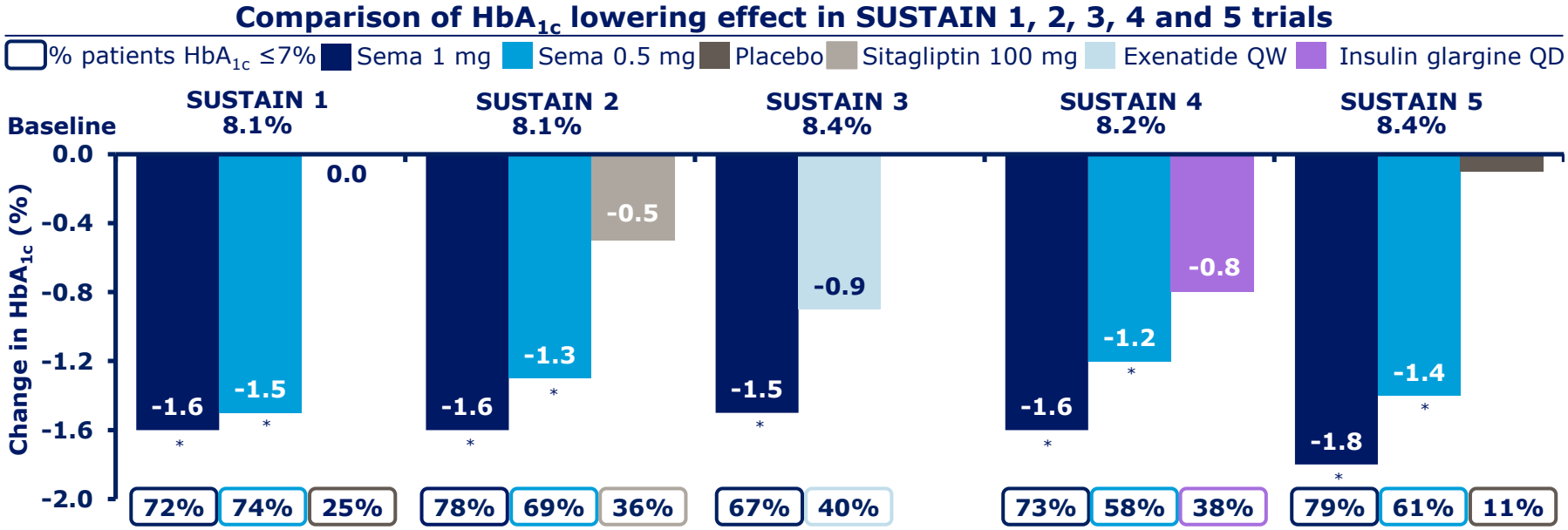
In phase 3a trials semaglutide shows best in-class potential on HbA_{1c} reduction across treatment cascade



* $p < 0.001$; QD: once daily; QW: once weekly; sema: semaglutide
Source: Novo Nordisk on file (NN9535-3623, NN9535-3624, NN9535-3625, NN9535-3626, NN9535-3627)

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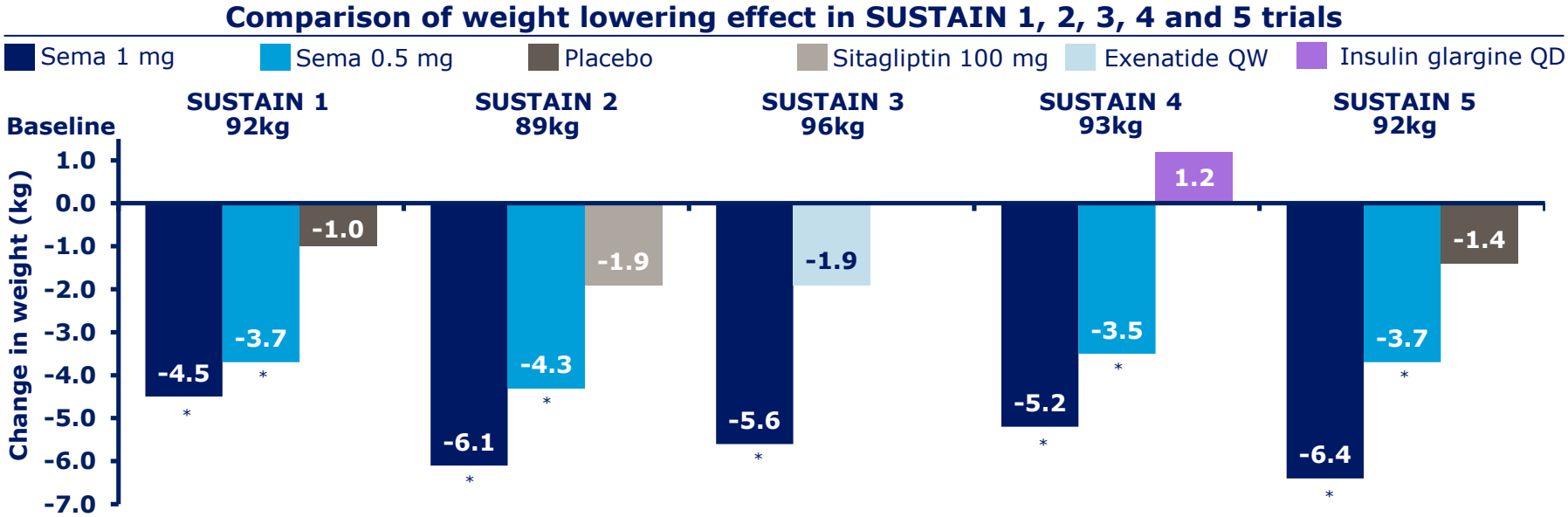
In phase 3a trials semaglutide shows best in-class weight lowering potential across treatment cascade



* $p < 0.001$; QD: once daily; QW: once weekly; sema: semaglutide
Source: Novo Nordisk on file (NN9535-3623, NN9535-3624, NN9535-3625, NN9535-3626, NN9535-3627)

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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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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
Mean trial start HbA_{1c} (%)	8.3	8.7	7.8	7.9	8.4
Mean trial end HbA_{1c} (%)	6.4	6.9	6.4	6.4	6.6
HbA_{1c} change (%)	-1.9	-1.9	-1.3	-1.45	-1.8
% to target < 7% (%)	80.6	60.3	75.3	79.2	71.6
% to target < 6.5% (%)	69.7	45.2	63.0	64.0	55.4
Confirmed hypoglycaemia (Episodes per 100 PYE)	180.2	153.4	282	351.7	343.3
Weight change (kg)	-0.5	-2.7	+2.0	+0.5	-1.4

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

Fast-acting insulin aspart provides superior glucose control vs NovoRapid® in onset 1 trial

Creating a new formulation that satisfies an unmet medical need

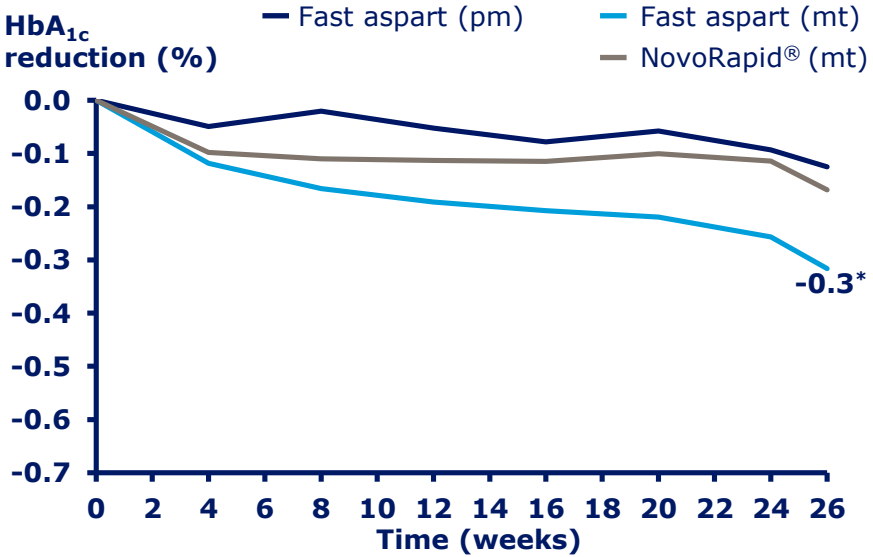
Fast-acting insulin aspart is an innovative formulation of insulin aspart:

- Vitamin B3 (nicotinamide)[1] added to increase early absorption
- Naturally occurring amino acid (arginine)[1] added to obtain stability

Fast-acting insulin aspart is intended to address unmet medical need:

- Faster absorption mimics physiological insulin action profile
- A better profile for pump and future closed loop systems

HbA_{1c} reduction in onset 1 trial after 26 weeks



* $p<0.05$; pm: post-meal; mt: meal time
Source: Novo Nordisk on file (NN1218-3852)

[1] Concentration often below recommended dietary daily intake

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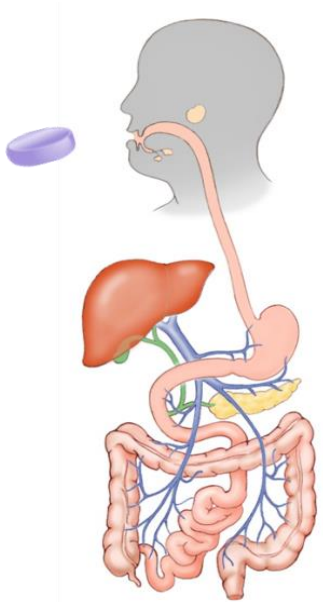
Oral peptide delivery – the gastro-intestinal route poses many challenges to absorption of intact macromolecules

Challenges

1. Breakdown of drug in the stomach/gastrointestinal tract
2. Passage across the gut barrier into the circulation
3. Ensuring a long circulation half-life

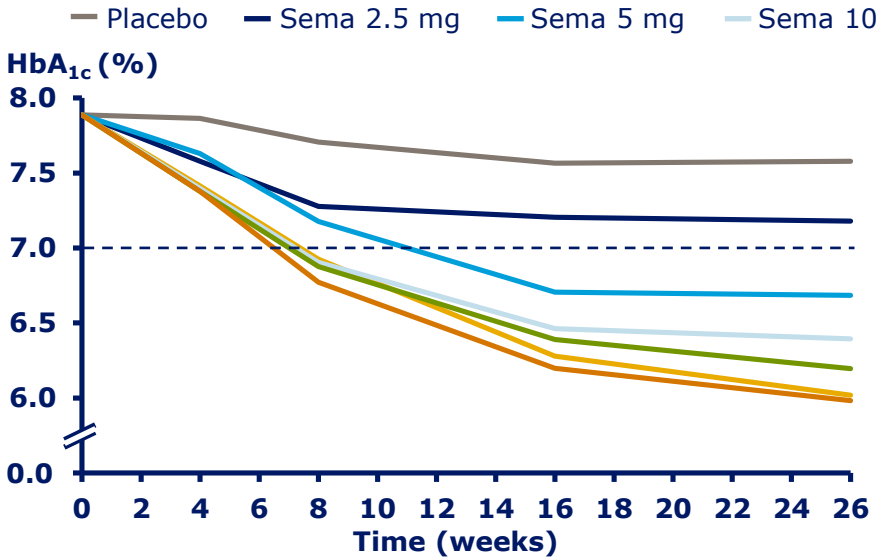


Solutions

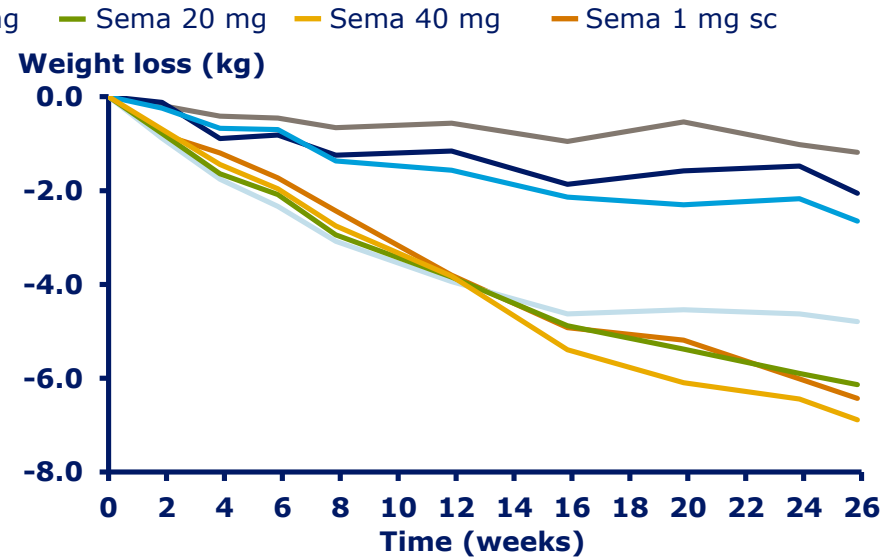
1. Stabilisation of peptide backbone and side chain
2. Tablet formulation including carrier and/or coating
3. Engineered systemic protraction mechanism

Oral semaglutide dose dependently 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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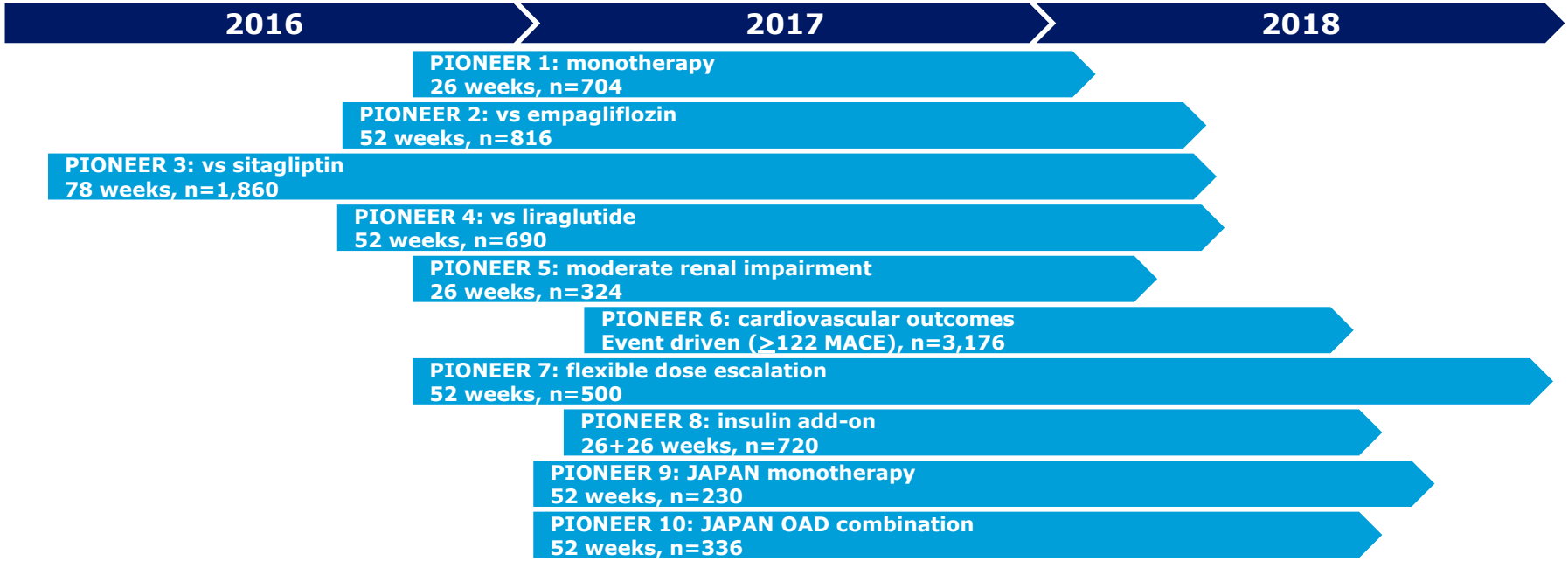
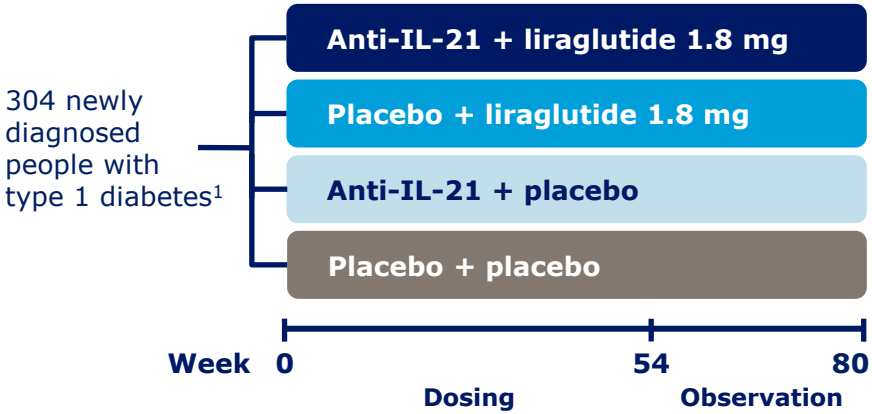
Initiation of PIONEER trials for oral semaglutide



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

Anti-IL 21 in combination with liraglutide is an alternative approach for the treatment of type 1 diabetes

Phase 2 trial design



Rationale for Anti-IL 21 and liraglutide combination product for T1D

Anti-IL 21 plays an important role in autoimmunity with potential effect on immune disorder

- ↓ Effector cells (T and B lymphocytes and natural killer cells)
- ↓ Pro-inflammatory cytokines
- ↓ Autoantibodies
- ↓ Chemokines
- ↓ Matrix metalloproteinase (MMPs)

GLP-1 receptor agonist may promote beta-cell recovery

- ↓ Decrease beta-cell stress/apoptosis
- ↑ Stimulate beta-cell neogenesis
- ↑ Expansion of beta-cell mass in rodent models

Orphan drug designation granted for the treatment of type 1 diabetes with residual beta cell function in January 2017

[1] Inclusion criteria: Subjects diagnosed as type 1 diabetes for not more than 12 weeks prior to randomisation; age 18-45 (both inclusive)
Note: If liraglutide 1.8 mg is not tolerated 1.2 mg is administered. ANTI-IL: interleukin

T1D: Type 1 diabetes; MOA: Mode of action

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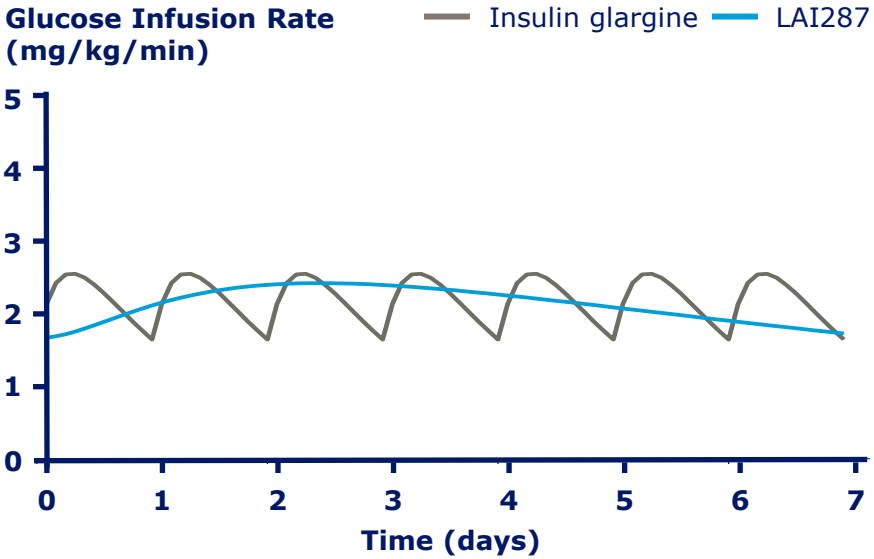
Insulin LAI287 offers potential for once-weekly dosing

LAI287 pharmacodynamic profile is compatible with once-weekly dosing



Note: Pharmacokinetic simulation

Key results of phase 1 trial

- The trial evaluated short term efficacy and safety during five weeks of treatment
- LAI287 showed dose-dependent exposure and a variability comparable to that of insulin degludec
- Terminal half-life of 185 hours supporting a once-weekly dosing regimen
- LAI287 generally appeared safe and well tolerated, with most frequent adverse events being hypoglycaemia
- The side effects observed in the phase 1 trial will be further investigated

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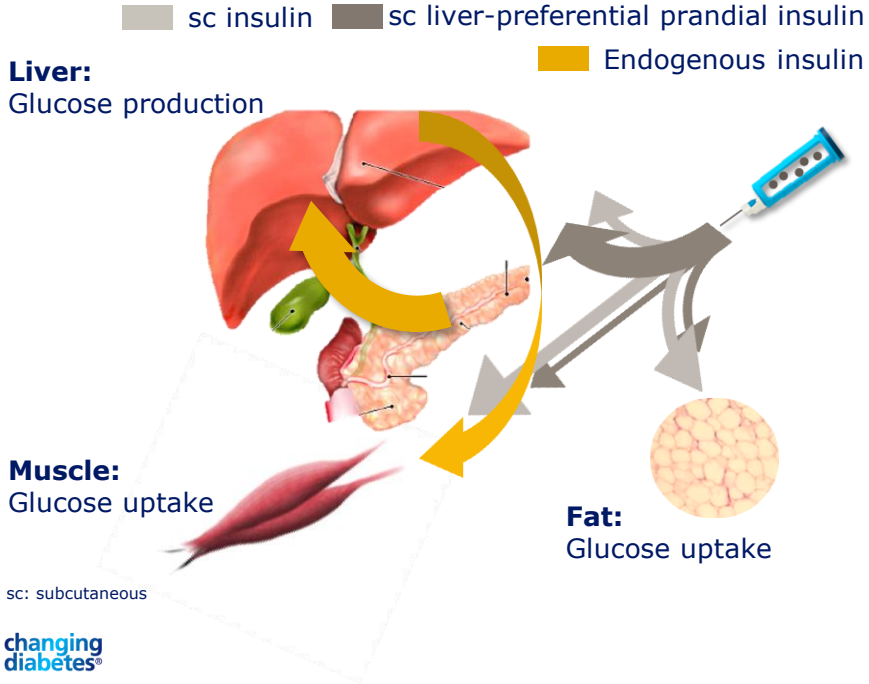
Liver-preferential meal time insulin analogue has potential to reduce hypoglycaemia and weight gain

The liver is important for insulin action



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

- Phase 1 trial with liver-preferential mealtime insulin (NN1406) initiated

PPG: post prandial glucose

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

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More than 20 million people in the US have a BMI above 35 with either pre-diabetes or CV related comorbidities

Incidence of obesity in the US (million people)

Comorbidity status	BMI 27-29.9	Obesity			Total
		Class I BMI 30-34.9	Class II BMI 35-39.9	Class III BMI 40+	
No CV comorbidities[1]	15.5	11.0	4.2	3.0	**33.7**
CV comorbidities[2]	15.1	16.0	6.4	4.1	**41.6**
Pre-diabetes[3]	12.0	14.1	7.2	6.1	**39.4**
Type 2 diabetes[4]	2.0	5.0	3.6	2.3	**12.9**
Total	**44.6**	**46.1**	**21.4**	**15.5**	**127.6**

[1] Normal blood glucose without hypertension and/or dyslipidemia
[2] Normal blood glucose with hypertension and/or dyslipidaemia
[3] Impaired Fasting Glucose with or without hypertension and/or dyslipidaemia
[4] Type 2 diabetes with or without hypertension and/or dyslipidaemia
Source: 2009-2010 NHANES + revised 2011 CDC estimates and based on US population 2015. Only includes population age 20+. Distribution between obese groups on market map based on NHANES data (including only measured and not self reported BMI and also measured not self-reported diabetes status)

The US obesity burden

- Cost of obesity to health care systems of USD 147 billion annually with continued growth[5]
- Around 35% of the US adult population (over 20 years) have obesity (BMI>30)[6]
- Only around 30% of all obesity cases in the US were diagnosed in 2009[7]
- In 2010, only 3 million people in the US or around 3% of the adult population with obesity were treated with anti-obesity medication[8]

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

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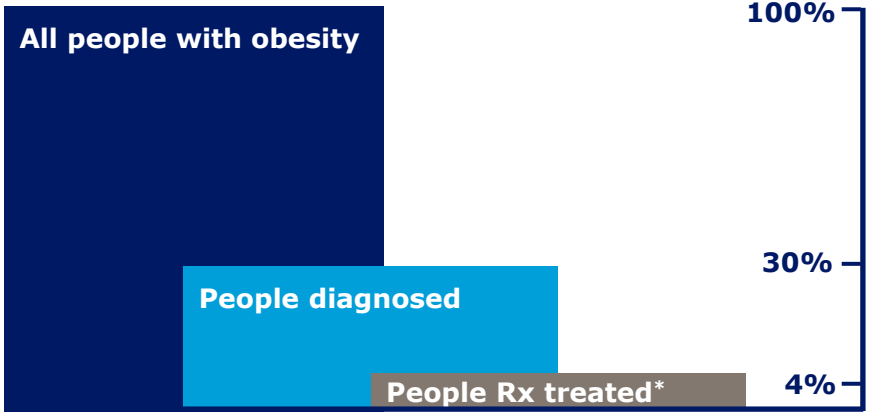
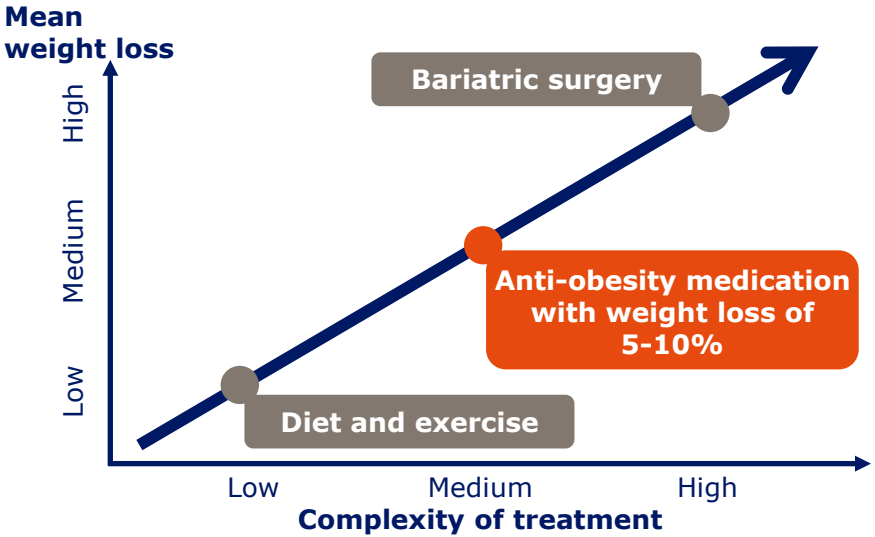
Significant unmet need in obesity management

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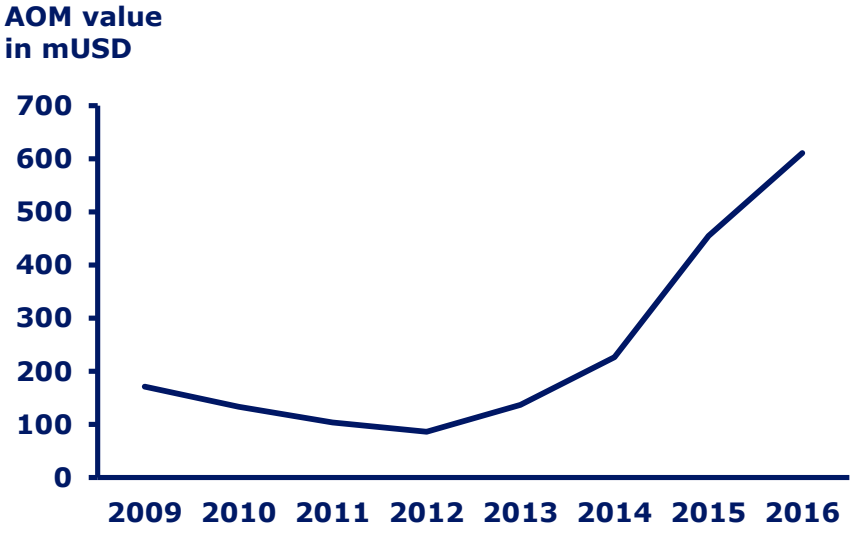
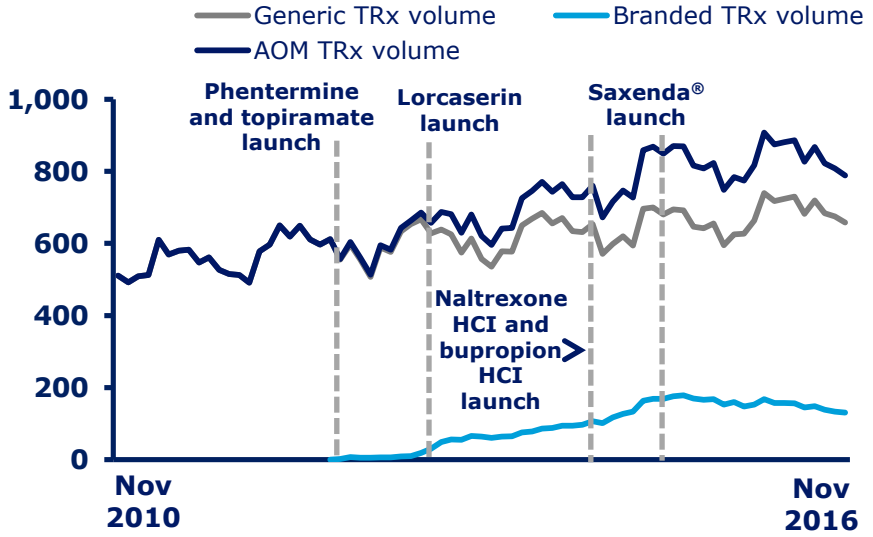
Small but growing market for anti-obesity medication in the US

AOM Market Value has grown quickly in recent years, fuelled by branded treatment uptake



Note: Values are shown in terms of Moving-Annual-Total ending November
Source: IMS NSP Monthly, November 2016

Few people treated with AOM, but in recent years launches have fuelled market growth



Note: Phentermine and topiramate is a fixed combination; naltrexone HCl and bupropion HCl is the second fixed dosed combination to market. AOM: anti-obesity medication
Source: IMS NPA Monthly, November 2016

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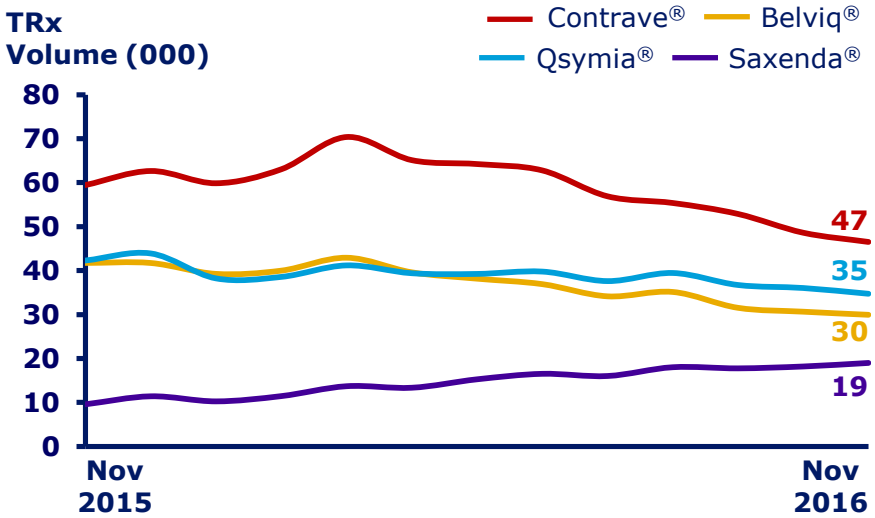
Steady prescription uptake for Saxenda® in the US

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



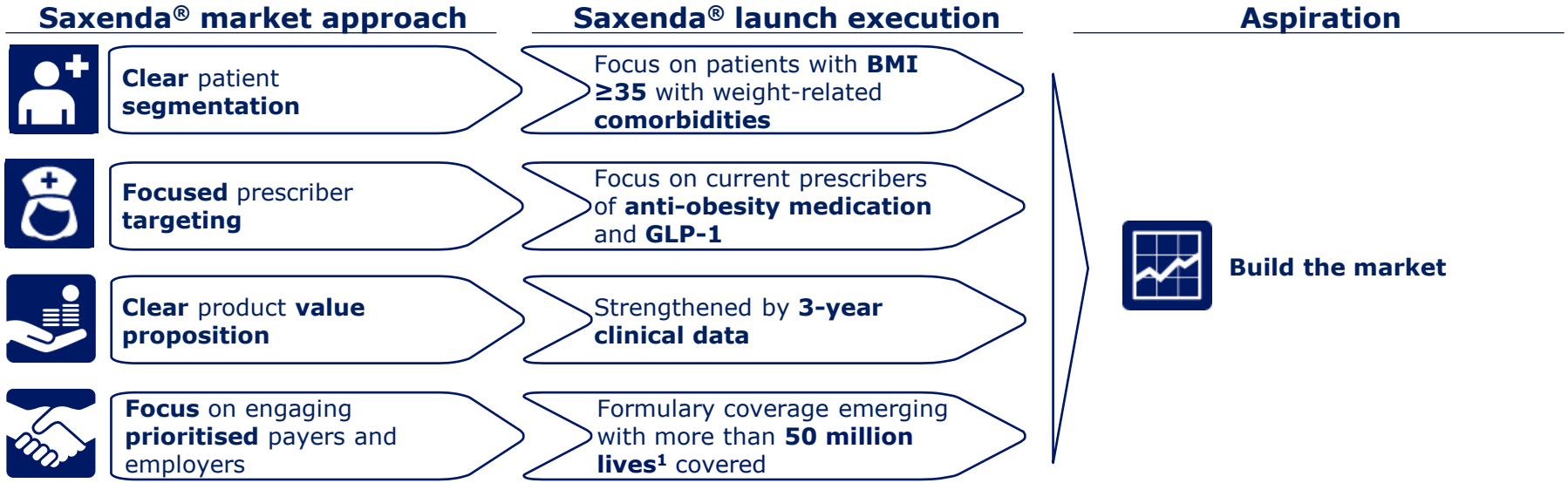
Source: IMS NPA TRx, monthly, November 2016

Key observations

- Saxenda® has been launched in 15 markets, including the US, Canada, Denmark, Italy, Australia, Mexico, Germany, Belgium, Brazil, Israel, Sweden, the Netherlands, Spain, UAE and Russia
- Saxenda® is the leader in value market share at ~56% among branded AOM in the US
- While competitors have recently reduced their promotional efforts, Novo Nordisk remains confident in the long-term obesity market growth and the evolving Novo Nordisk obesity portfolio

Source: IMS NSP, Monthly data, November 2016

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



BMI: body mass index
[1] Potential lives covered, based on employer opt-ins

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Competitive US label for Saxenda®

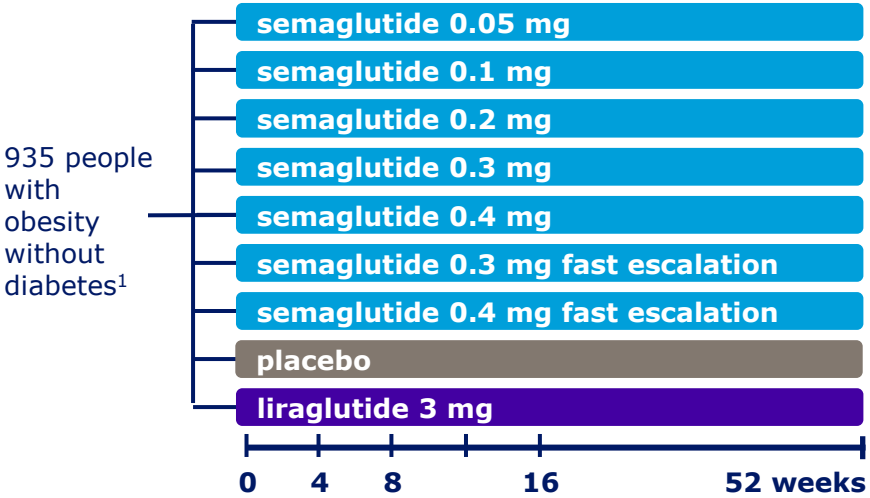
Saxenda® approved in the US for chronic weight management in individuals with a BMI ≥30, or ≥27 in the presence of at least one weight-related comorbidity[1]

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**
Effect on body weight	• 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]
Effect on comorbidities	• **Improvements** in **cardiometabolic risk factors** such as hypertension and dyslipidaemia
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

[1] Examples include hypertension, type 2 diabetes and dyslipidemia [2] Saxenda® US Package Information. [3] When used with an insulin secretagogue

Semaglutide once daily phase 2 dose-finding trial in obesity is designed to optimise treatment outcomes

Once-daily semaglutide phase 2 trial design



[1] Key inclusion criteria: Male or female ≥18 years, BMI: ≥30 kg/m^2, Stable body weight (<5 kg change) ≥90 days
Note: Once-daily subcutaneous dosing in all arms, 4-week escalation steps in main arms, 2-week escalation steps in fast escalation arms

Phase 2 trial purpose and endpoints

Purpose

- To assess and compare the dose response of five doses of once-daily sc semaglutide versus placebo in inducing and maintaining weight loss after 52 weeks
- To investigate two different dose escalation regimens

Trial design

- Randomised, controlled, double-blinded
- Diet and exercise counselling in all arms

Primary endpoint

- Relative change from baseline in body weight at 52 weeks

Examples of secondary endpoints

- Proportion of subjects with weight loss of ≥ 5% or ≥ 10% of baseline body weight at 52 weeks

Results from phase 2 trial communicated in Q1 2017

QD: once-daily; sc: subcutaneous

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Long-acting 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
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
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
Phase 1 trial status	Expected completion 2017	Expected completion 2018	Expected completion 2019	Expected completion 2018	Expected completion 2018

PK: pharmacokinetic; SC: Subcutaneous

Biopharmaceuticals

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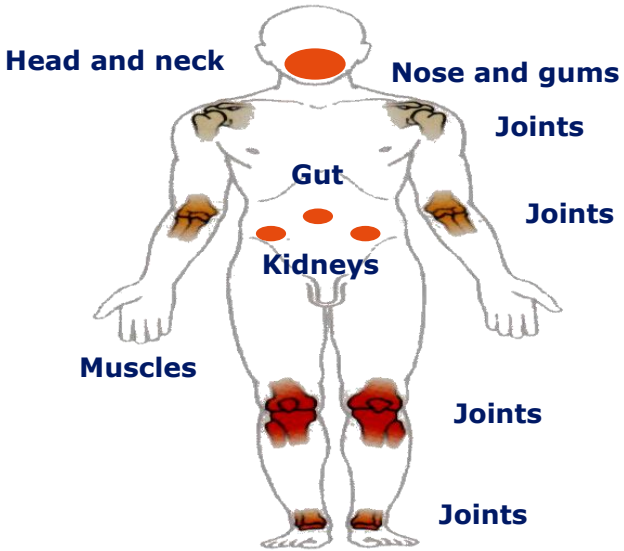
Haemophilia: Location of bleedings and the consequences

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

Locations

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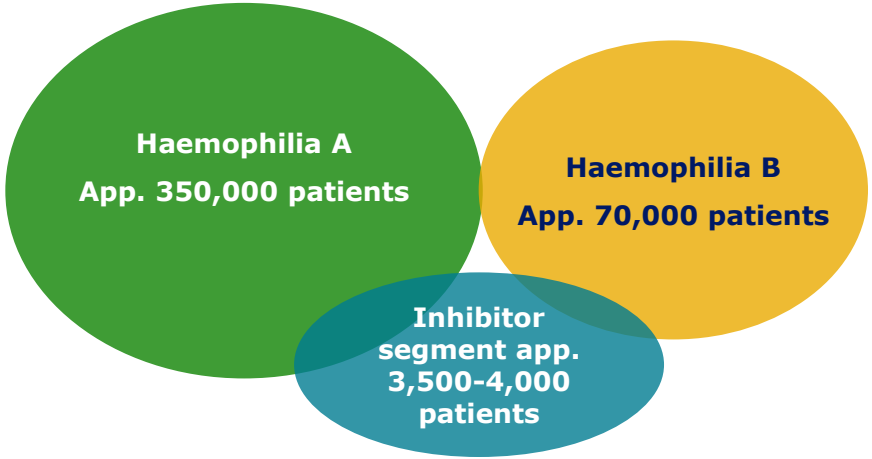
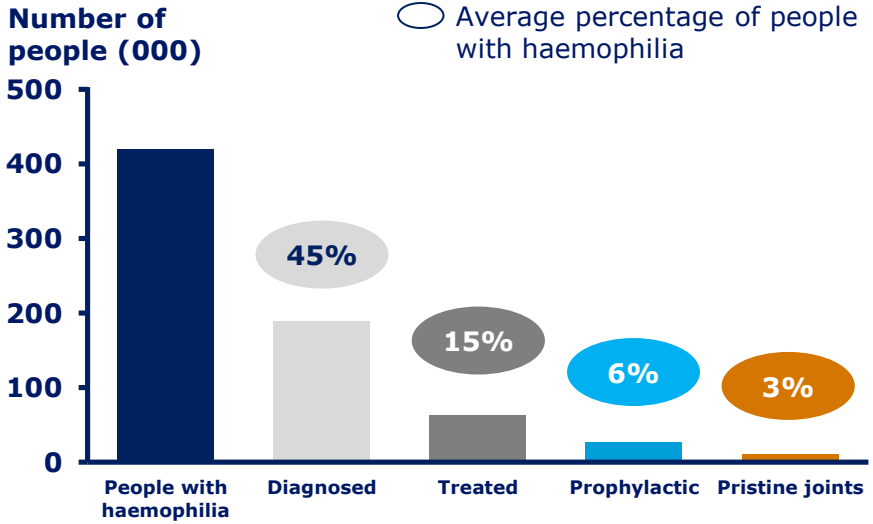
Haemophilia is a rare disease with severe unmet medical needs

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 2012

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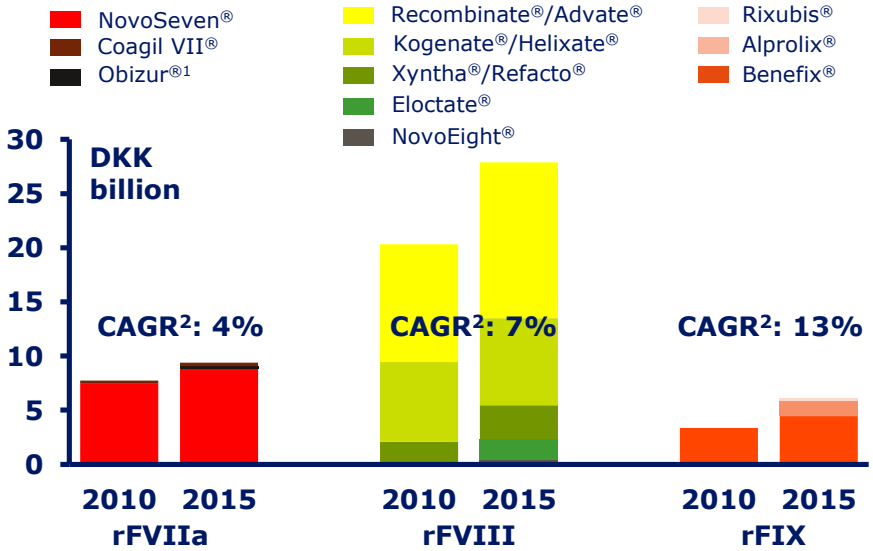
Global haemophilia market is growing by mid-single digit

Sales of recombinant coagulation factors



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

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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
N9-GP	Filed[4]	Establish new treatment paradigm
NovoThirteen®	Launched	Launch first recombinant product

[3] Submission of N8-GP expected 2018 pending expansion of production capacity
[4] Submitted to the to the European Medicines Agency in January 2016; Submitted to the US Food and Drug Administration in May 2016

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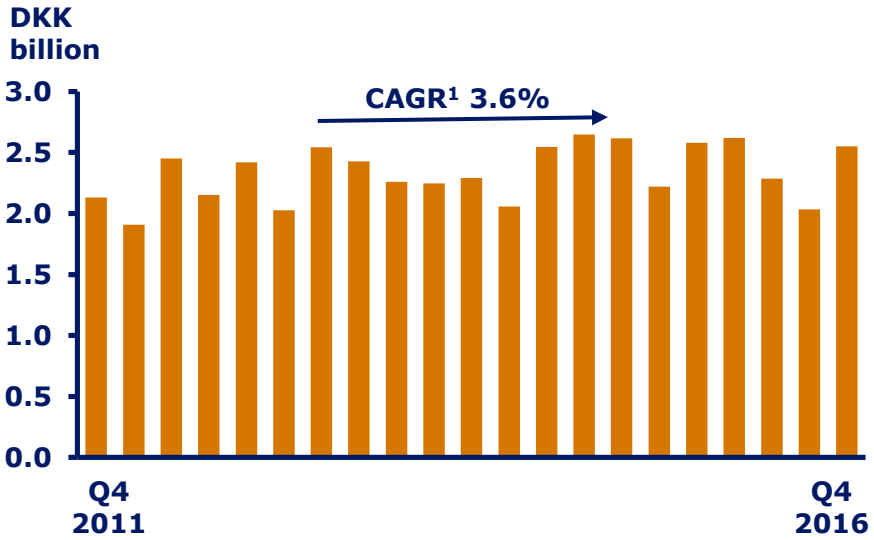
NovoSeven® – a unique biologic for the treatment of rare bleeding disorders

NovoSeven® reported quarterly sales



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]

[1] CAGR for 5-year period

[2] Only indicated in Europe and the US

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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
  - Regulatory approval in 43 countries
  - Commercial or technical launch in 26 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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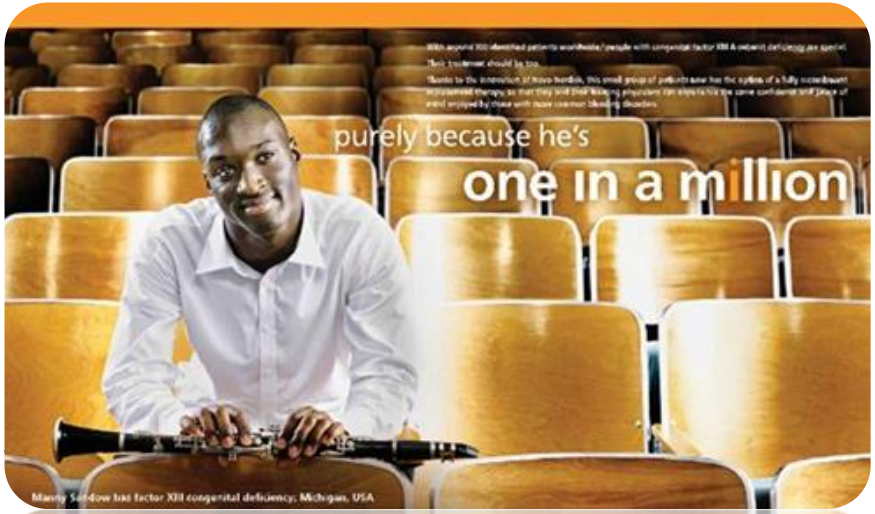
NovoThirteen®, a recombinant FXIII, provides efficacious and safe haemostatic coverage

Example from NovoThirteen® promotional campaign[1]



[1] Picture is not intended for promotional purposes

NovoThirteen® properties and launch performance

Indication:

- Long term prophylactic treatment of bleeding in adult and paediatric patients with congenital factor XIII A-subunit deficiency

Key product characteristics:

- NovoThirteen® is the only recombinant product for prophylaxis
- NovoThirteen® is well tolerated and has low volume dosing
- NovoThirteen® effectively prevents bleeds and provides a convenient once-monthly regimen

Launch status:

- NovoThirteen® is approved in Australia, Bahrain, Brazil, Canada, Colombia, EU, Iceland, Israel, Japan, Kuwait, Oman, Qatar, Saudi Arabia, Switzerland, and the US

Source: European Medicines Agency, summary of opinion (post-authorisation) 23 January 2014. NovoThirteen® Summary of product characteristics.

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R&D pipeline: Haemophilia and growth disorders

Product/project	Type	Indication	Status (phase)				
			1	2	3	Filed	Appr.
N9-GP (NN7999)[1]	GlycoPEGylated long-acting rFIX	Haemophilia B	■	■	■	■	
N8-GP (NN7088)	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	■	■	■		

[1] Submitted to the to the European Medicines Agency in January 2016 and the US Food and Drug Administration in May 2016
[2] Phase 1b trial completed
[3] Phase 3 completed in Adult Growth Hormone Deficiency (AGHD)

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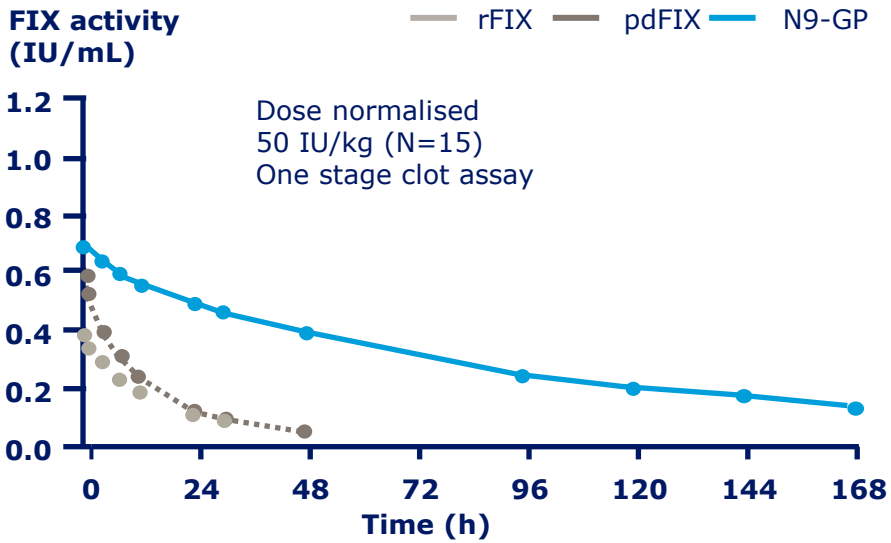
N9-GP administered once weekly reduces median bleeding rate to 1.0 episode per year in phase 3 trial

N9-GP phase 1 pharmacokinetics



rFIX: Recombinant factor IX; pdFIX: plasma-derived factor IX
Source: Negrier et al. Blood. 2011;115:2693-2701

Paradigm 2 headline results (phase 3)

- Steady-state half-life of 110 hours
- Median bleeding rate for patients treated on demand was 15.6 episodes per year
- Patients on once-weekly prophylactic treatment had a median bleeding rate of 1.0 episode per year when treated with 40 IU/kg
- Among patients receiving 40 IU/kg:
  - 99% of bleeding episodes treated with only one infusion
  - Two thirds of patients experienced complete resolution of bleeding into target joints
- N9-GP appeared to have a safe and well tolerated profile with no patients developing inhibitors

Next steps

- N9-GP Submitted to the European Medicines Agency in January 2016 and to the US Food and Drug Administration in May 2016

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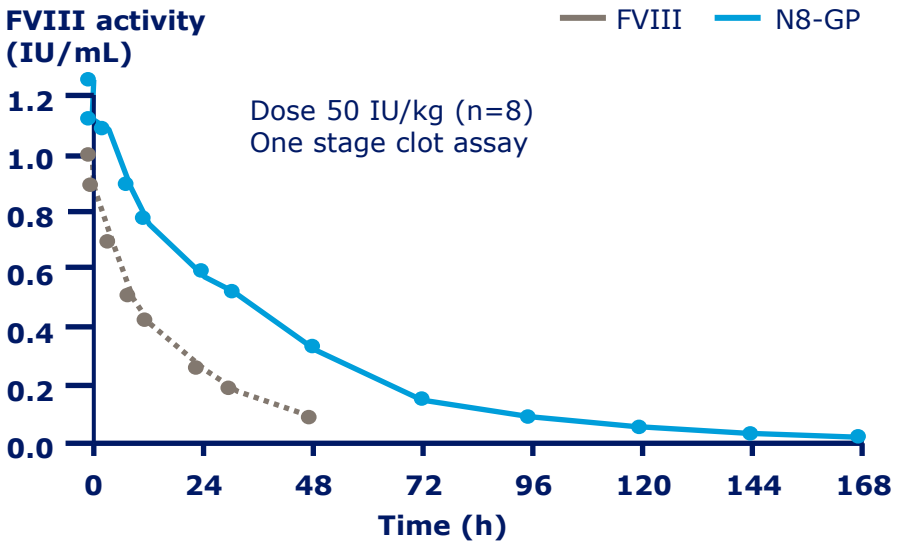
N8-GP administered every fourth day reduces median bleeding rate to 1.3 episode per year in phase 3 trial

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 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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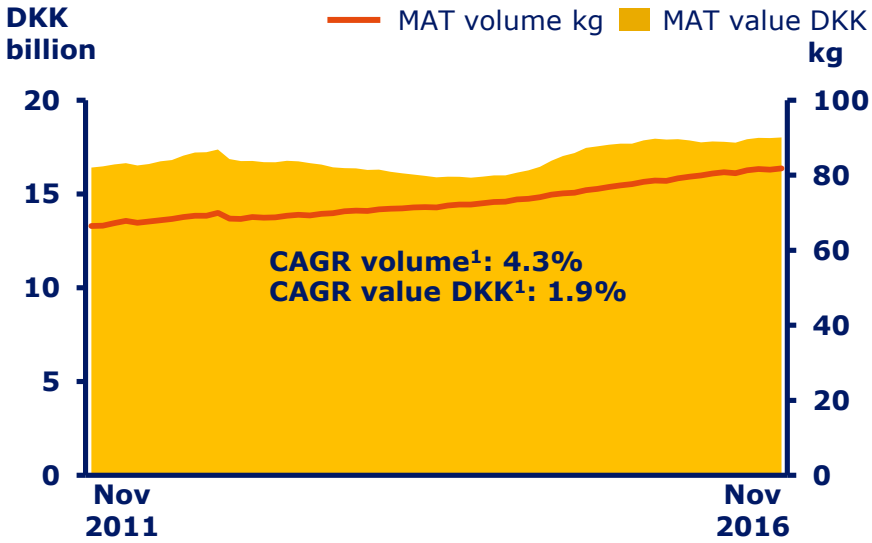
Novo Nordisk maintains leadership within human growth hormone (hGH) market

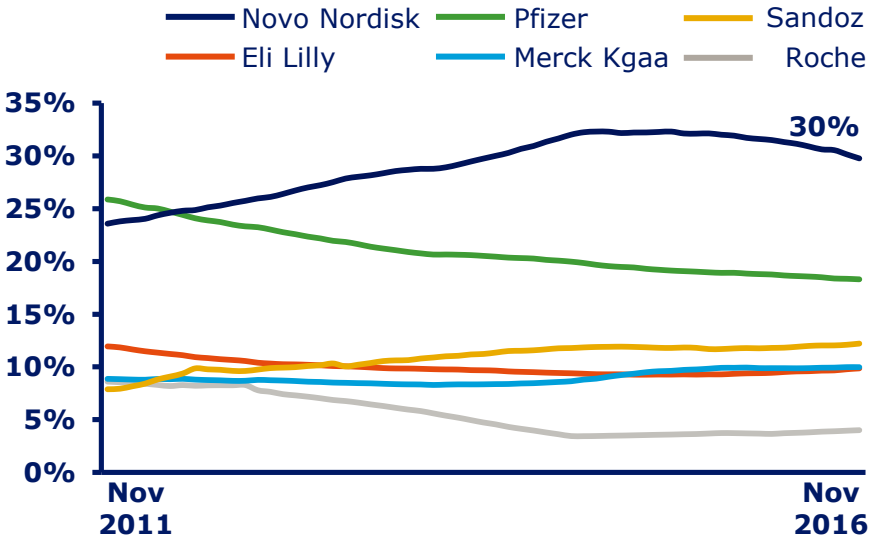
Development in global hGH market



[1] CAGR for 5-year period

Source: IMS Monthly MAT November, 2016 volume figures and value (DKK) figures

Growth hormone volume market share



Source: IMS Monthly MAT November, 2016 volume figures

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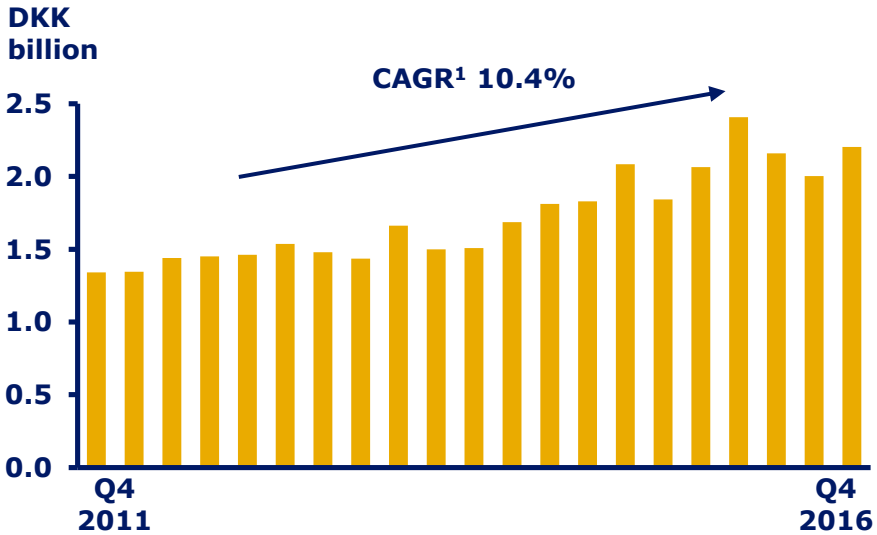
Solid Norditropin® sales growth

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, GHDA, 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; GHDA: Growth Hormone Deficiency in Adults; SGA: Small for Gestational Age

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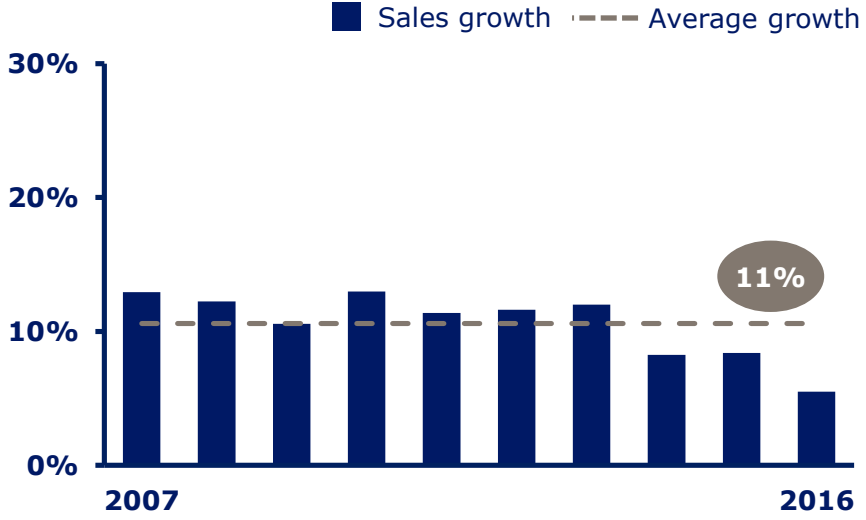
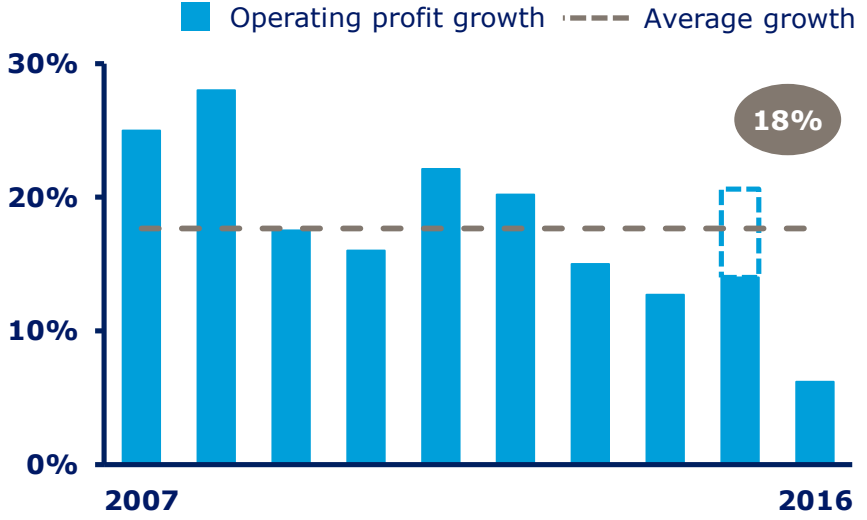
Financials

Novo Nordisk has delivered sustained growth throughout the last decade

Sales growth in local currencies 2006–2016



Operating profit growth in local currencies 2006–2016



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.

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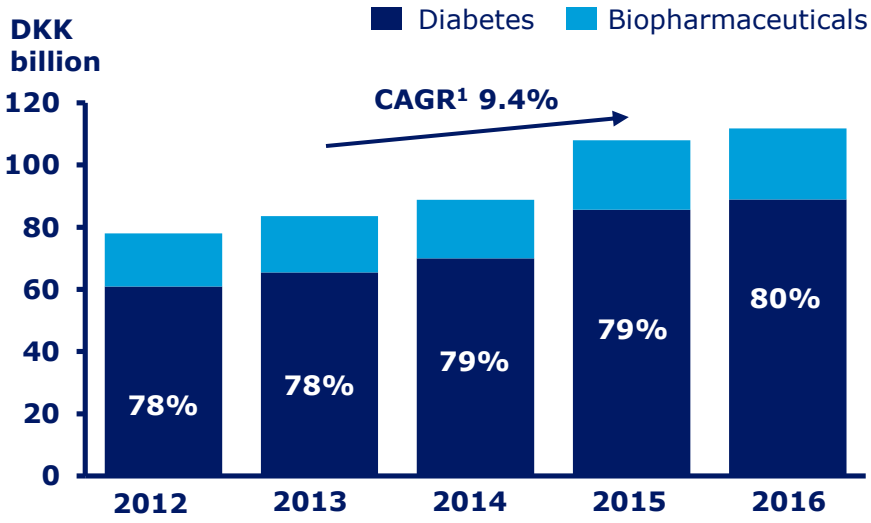
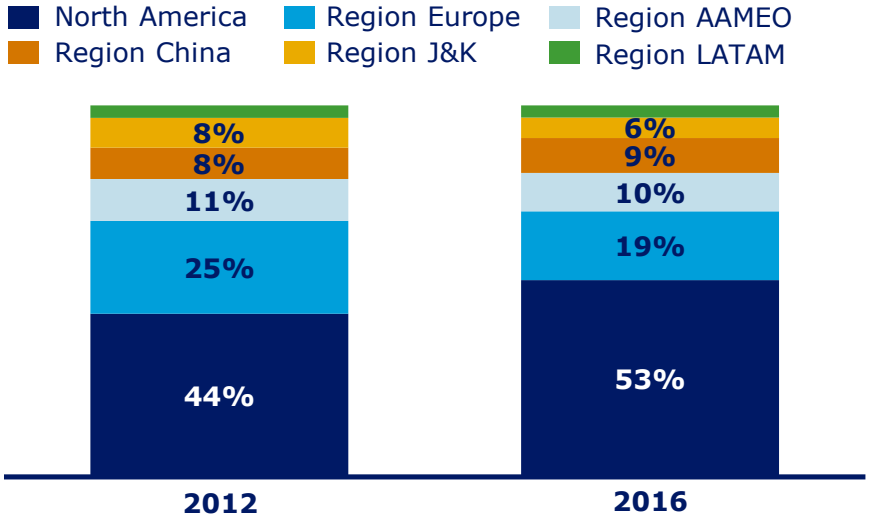
Solid sales growth and expanding share of sales from the US

Reported annual sales



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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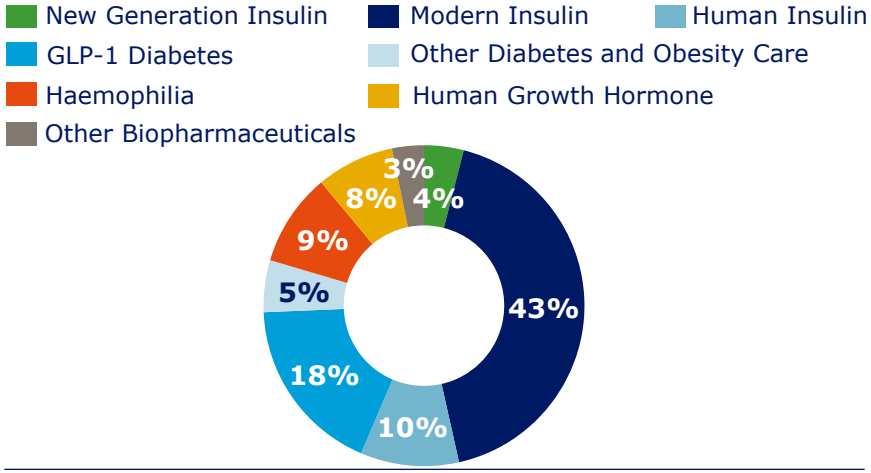
Modern insulin and Victoza® comprise around 60% of total sales in the full year 2016

Reported sales split by product segments the full year 2016



Sales of DKK 111.8 billion (+6%)

Reported sales split by selected key products the full year 2016

Reported currencies	Sales (mDKK)	Sales split
Tresiba®	4,056	4%
Levemir®	17,083	15%
NovoRapid®	19,945	18%
NovoMix®	10,482	9%
Victoza®	20,046	18%
Saxenda®	1,577	1%
Diabetes and obesity care[1]	**88,949**	**80%**
NovoSeven®	9,492	8%
Norditropin®	8,770	8%
Biopharmaceuticals[1]	**22,831**	**20%**
Total[1]	**111,780**	

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

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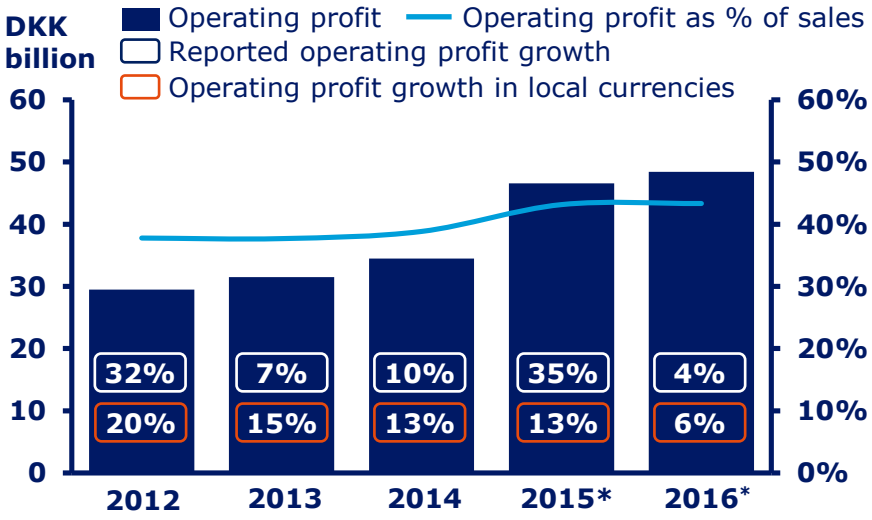
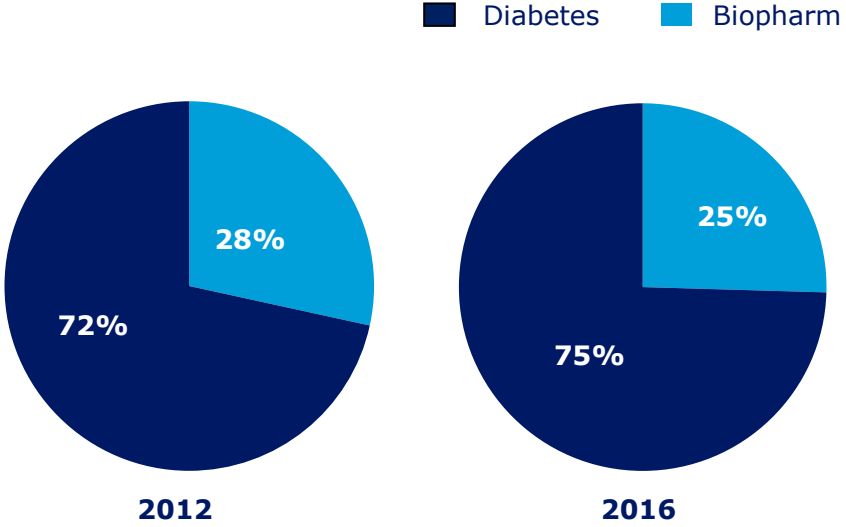
Solid operating profit growth driven by diabetes

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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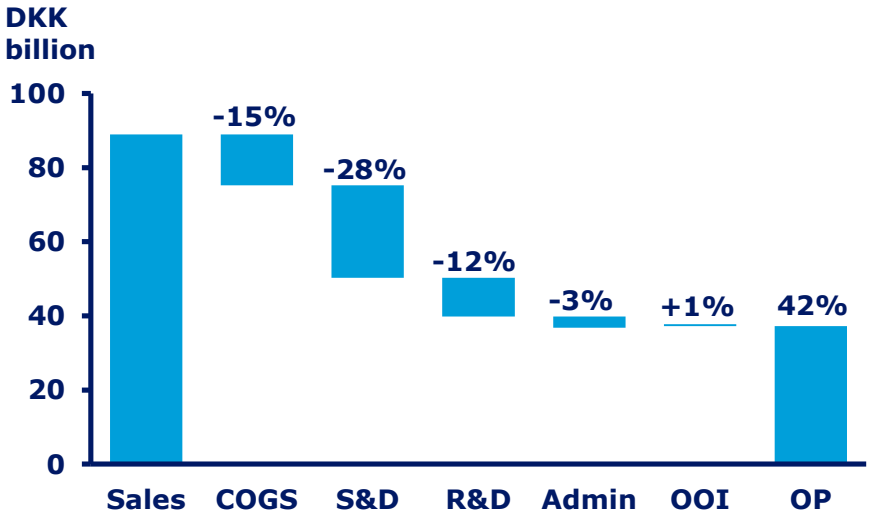
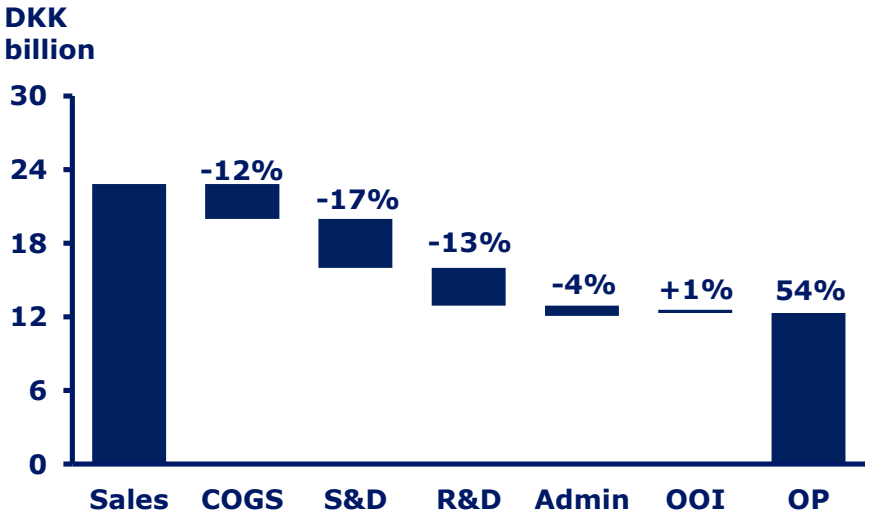
Profitability per segment

Diabetes & Obesity P&L – full year 2016



Biopharmaceuticals P&L – full year 2016



P&L: Profit and Loss; COGS: Cost of goods sold; OOI: Other operating income; OP: Operating profit

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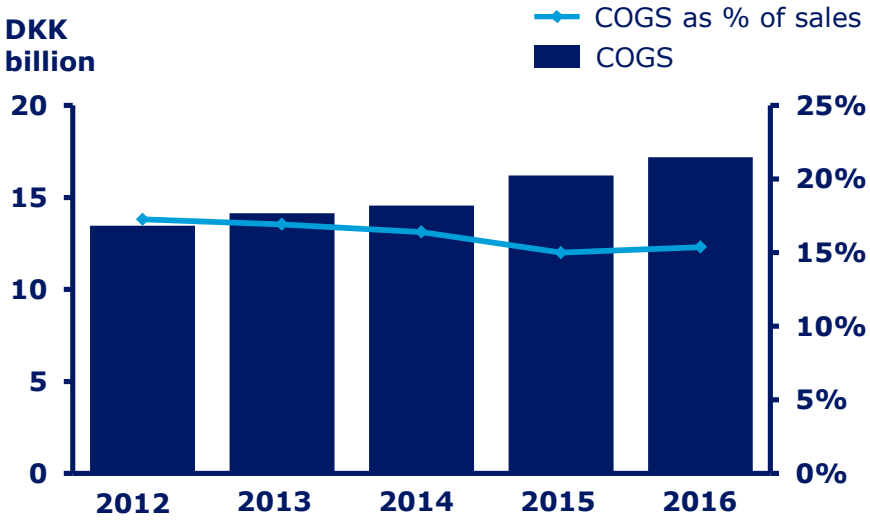
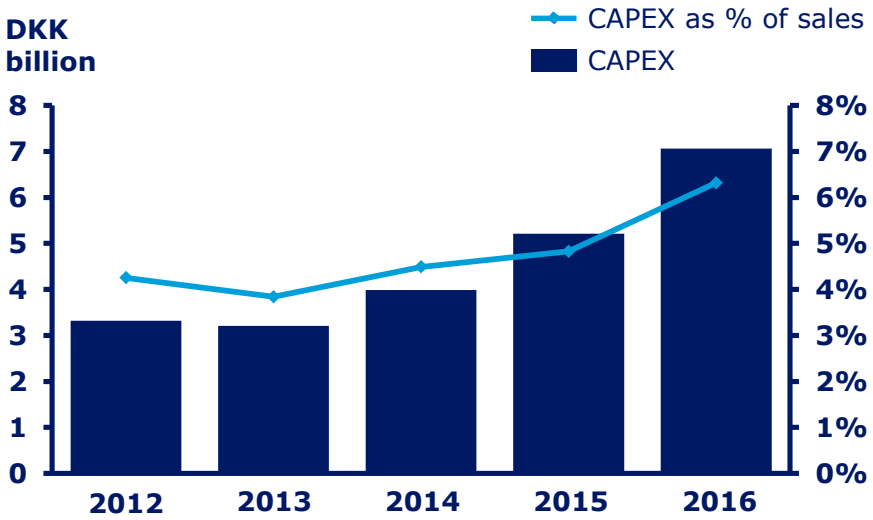
Stable COGS level as % of sales and increasing CAPEX level

Cost of Goods Sold (COGS)



Capital Expenditure (CAPEX)



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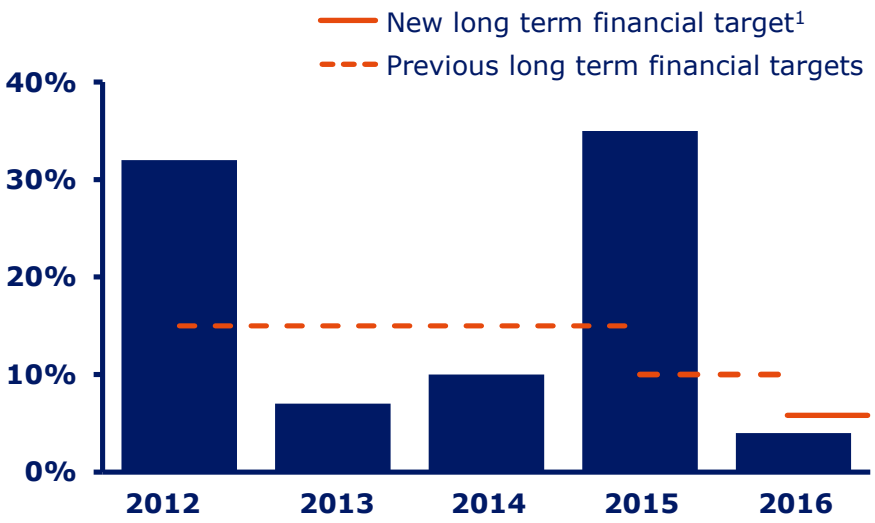
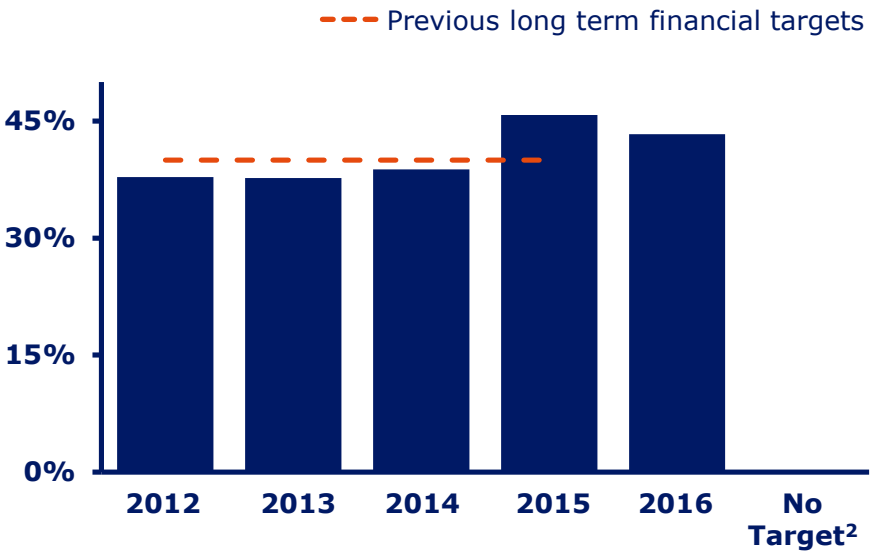
Long term financial targets:
Operating profit growth and operating margin

Operating profit growth



Operating margin



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

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

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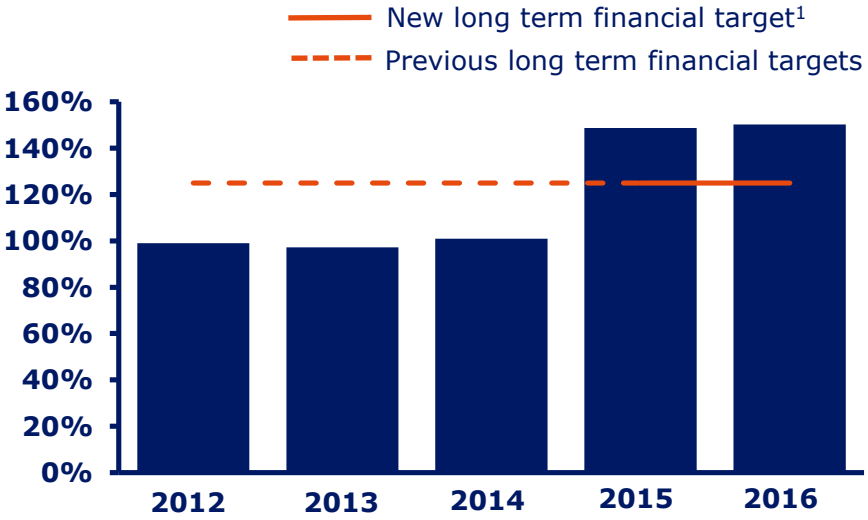
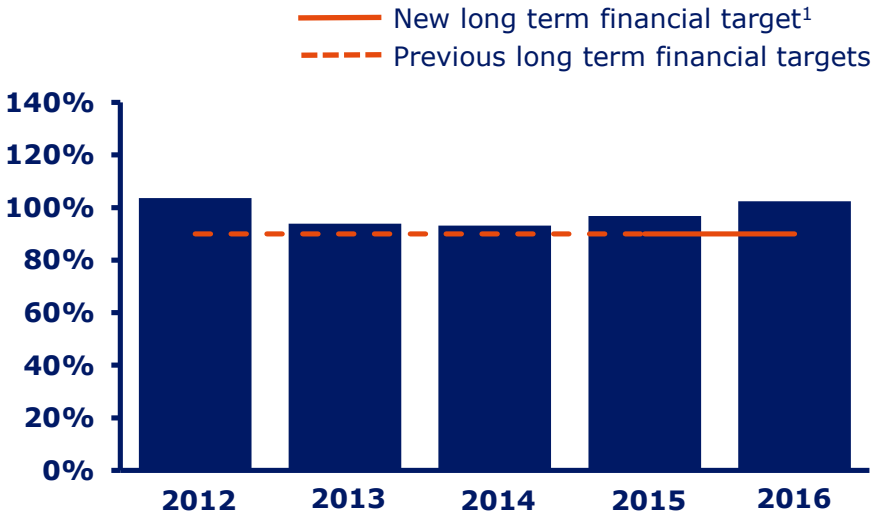
Long term financial targets:
Operating profit after tax to net operating assets and cash to earnings

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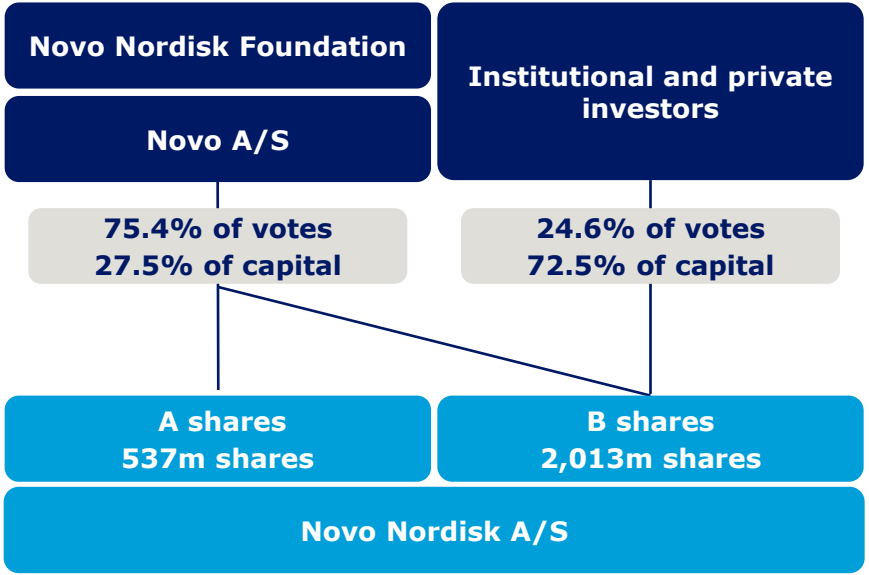
Stable ownership structure
- secured through A and B-share structure

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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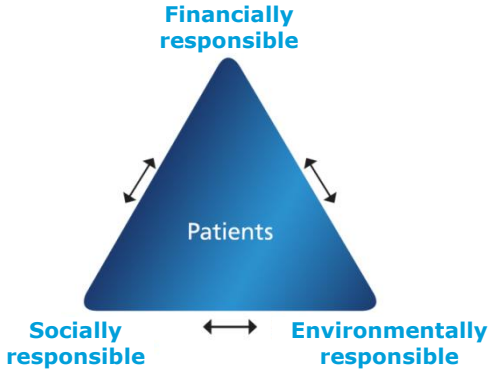
Sustainability

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

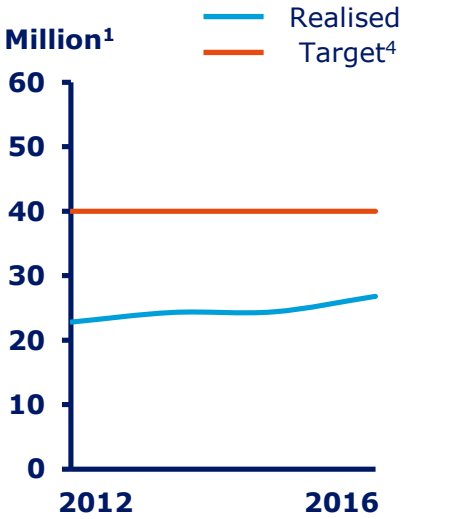
The Triple Bottom Line Business Principle



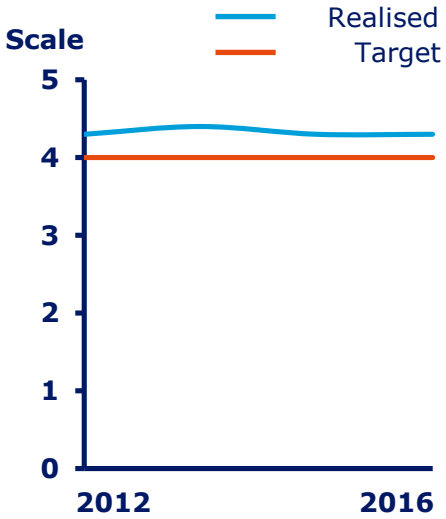
The **Triple Bottom Line Principle** guides how we do business responsibly and how we make decisions that consider the interests of stakeholders and the long-term interests of our shareholders

2016 performance towards achieving long-term sustainability goals

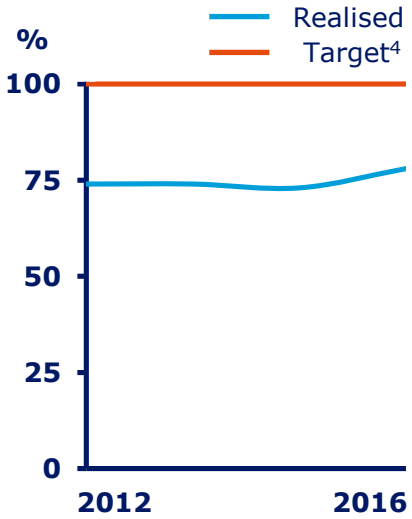
Patients reached with diabetes care products



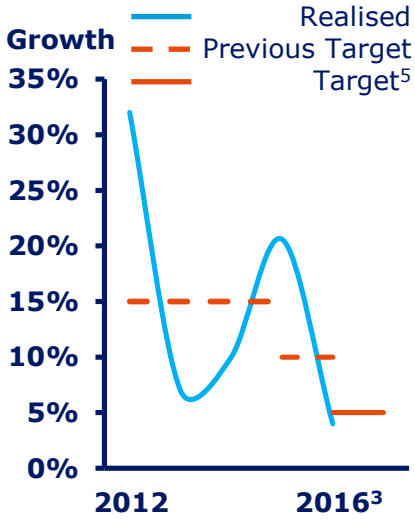
Working the Novo Nordisk Way[2]



Share of renewable power for production



Operating profit growth



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

changing diabetes®

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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

changing diabetes®

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

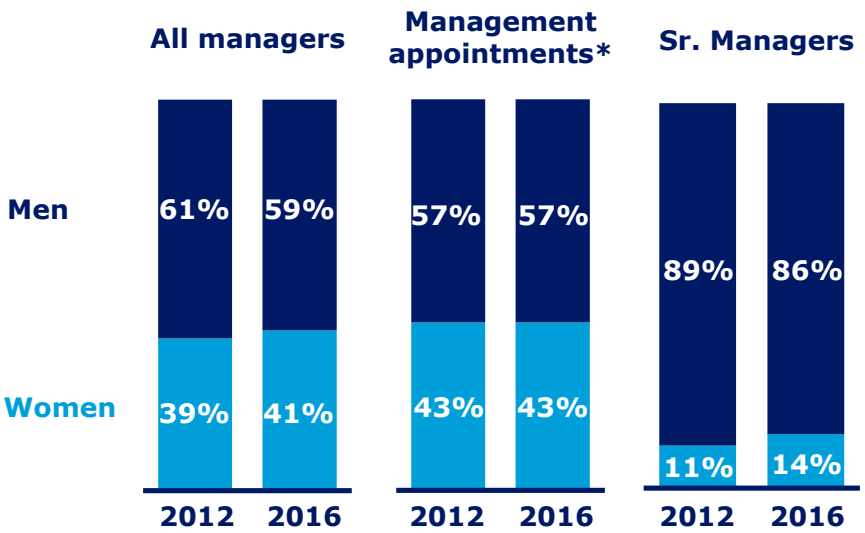
41,971 FTE employees and 3% growth vs LY[1]

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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