



Manato Ohara, diagnosed with type 1 diabetes
Kanagawa, Japan

novo nordisk – a focused healthcare company

Investor presentation
First six months of 2017



Agenda

Highlights and key events

Sales update

R&D update

Financials and outlook

Forward-looking statements

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

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

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

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

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

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

Important drug information

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

Highlights – First six months of 2017

Sales development

- Sales increased by 4% in Danish kroner and 3% in local currencies
 - North America Operations grew by 2% and accounted for 32% share of growth in local currencies
 - International Operations grew by 5% and accounted for 68% share of growth in local currencies
 - Region Europe grew by 4% in local currencies
 - Region China grew by 7% in local currencies
 - Region AAMEO grew by 4% in local currencies
- Tresiba® grew 149% and Victoza® grew 18% in local currencies

Research and Development

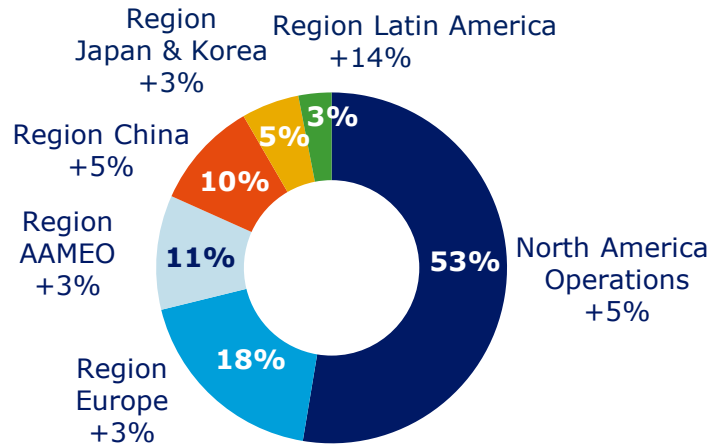
- Semaglutide in obesity demonstrated an adjusted average weight loss of 13.8% with the highest dose in phase 2 trial
- The US application for including SWITCH trials in the Tresiba® label to be reviewed in the context of the DEVOTE trial
- Positive 17-2 vote from FDA Advisory Committee that Victoza® reduces the cardiovascular risk in people with type 2 diabetes
- Victoza® approved in the EU as the only GLP-1 with a label to include prevention of cardiovascular events

Financials

- Operating profit increased by 8% in Danish kroner and by 6% in local currencies
- Diluted earnings per share increased by 6% to 8.07 DKK per share.
- 2017 financial outlook:
 - Sales growth is now expected to be 1% to 3% in local currencies (now around 3% lower reported)
 - Operating profit growth is now expected to be 1% to 5% in local currencies (now around 4% lower reported)
- An interim dividend of DKK 3.00 per share of DKK 0.20 will be paid in August 2017

Sales growth is primarily driven by the US, Region Europe and Region China

Sales as reported – First six months of 2017



Sales of DKK 57.1 billion (+4%)

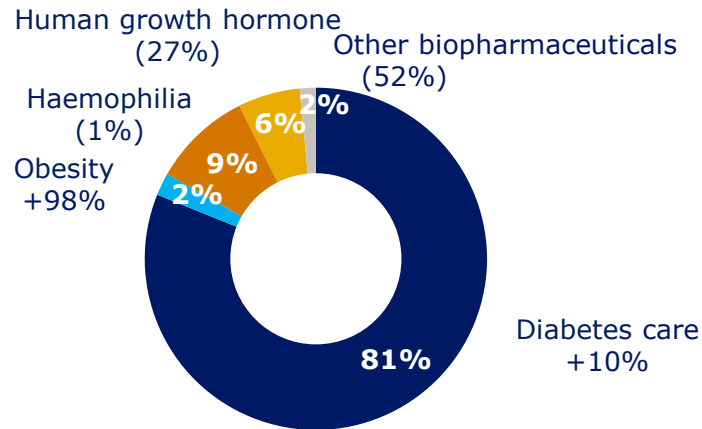
Growth analysis – First six months of 2017

Local currencies	Growth	Share of growth
North America Operations	2%	32%
Hereof USA	2%	28%
International Operations	5%	68%
Region Europe	4%	24%
Region AAMEO	4%	13%
Region China	7%	22%
Region Japan & Korea	1%	1%
Region Latin America	9%	8%
Total sales	3%	100%

AAMEO: Africa, Asia, Middle East & Oceania

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

Sales as reported – First six months of 2017



Sales of DKK 57.1 billion (+4%)

Growth analysis – First six months of 2017

Local currencies	Growth	Share of growth
New-generation insulin ¹	155%	144%
Modern insulin	(1%)	(20%)
Human insulin	(4%)	(13%)
Victoza®	18%	100%
Other diabetes care ²	(2%)	(3%)
Total diabetes care	9%	208%
Obesity (Saxenda®)	90%	32%
Diabetes and obesity care total	10%	240%
Haemophilia ³	(2%)	(8%)
Human growth hormone products	(28%)	(74%)
Other biopharmaceuticals ⁴	(53%)	(58%)
Biopharmaceuticals	(20%)	(140%)
Total	3%	100%

¹ Comprises Tresiba®, Xultophy®, Ryzodeg® and Fiasp®

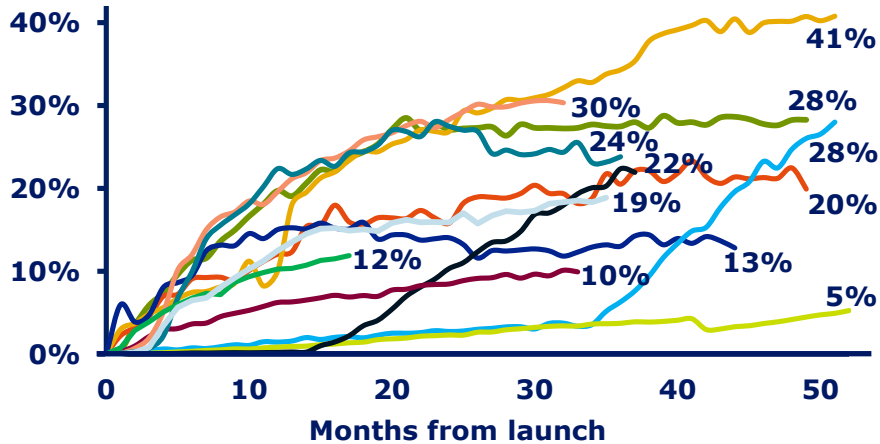
² Primarily NovoNorm® and needles

³ Comprises NovoSeven®, NovoEight® and NovoThirteen®

⁴ Primarily Vagifem® and Actively®

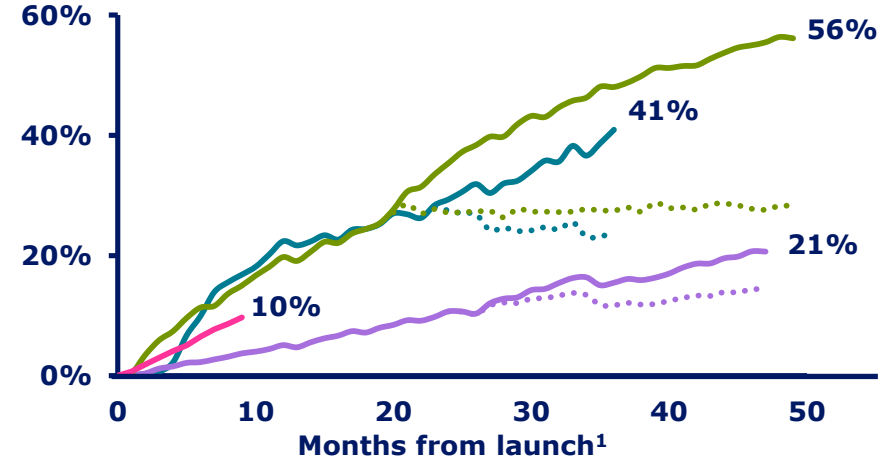
Basal insulin market penetration with Tresiba® is supported by Xultophy® launches

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



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

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

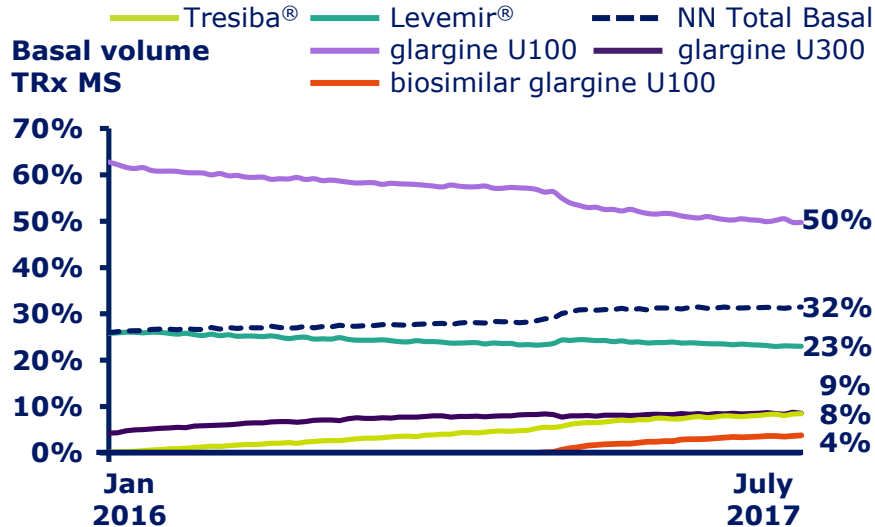


Source: IMS Monthly value figures, May 2017

¹ Switzerland, Sweden and Greece: Months from Tresiba® launch. France: Months from Xultophy® launch (Tresiba® is not launched in France).

Increasing total basal insulin market share in the US

Weekly TRx volume market shares in the US



Note: The graph does not show NPH, which accounts for the residual market share
 Source: IMS weekly Xponent Plantrak (excludes Medicaid), 21 July 2017
 TRx volume: Insulin volume in mega units (MU) associated with total number of prescriptions;
 MS: Market share

Tresiba® launch in the US

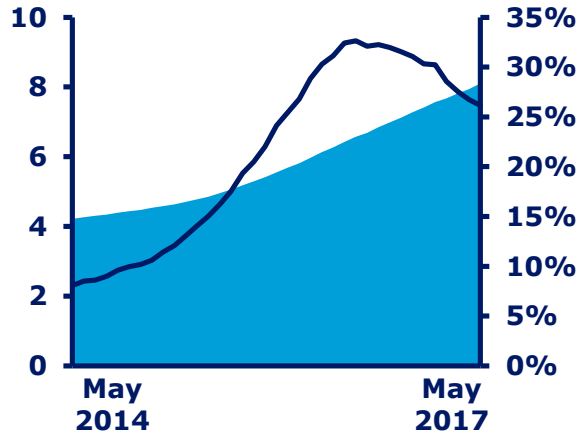
- Tresiba® New-to-Brand Prescriptions market share of around 12%
- Tresiba® TRx volume market share is now 8.5% and Novo Nordisk expects to reach a TRx volume market share of around 10% by the end of 2017
- The uptake of Tresiba® is driven by strong penetration in the commercial channel, partly offset by lower sales in Medicare part D
- Tresiba® has wide formulary access of around 70% access for patients in commercial channels and Medicare part D combined in 2017

Source: IMS weekly Xponent Plantrak (excludes Medicaid), 21 July 2017

Continued GLP-1 market volume growth of more than 25% in the US

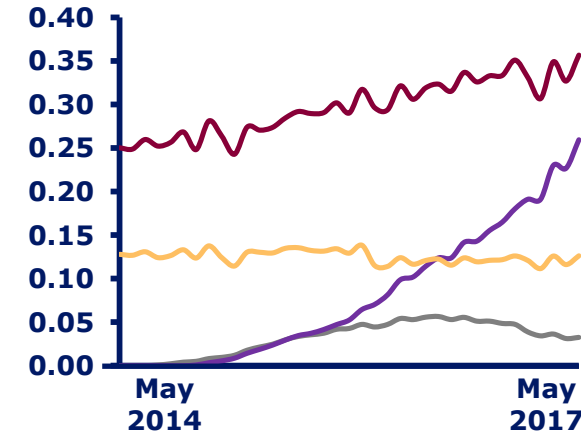
US GLP-1 market development

MAT ■ Total TRx **MAT volume**
GLP-1 TRx — Growth rate **growth rate**
 (million)



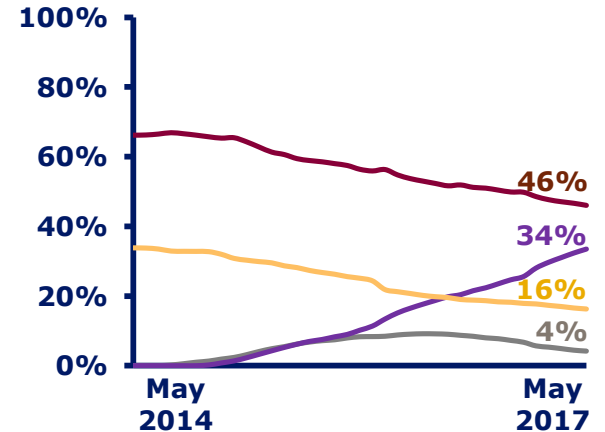
US GLP-1 market monthly TRx

GLP-1 TRx — Victoza® — exenatide
volume — albiglutide — dulaglutide
 (million)



US GLP-1 volume market share

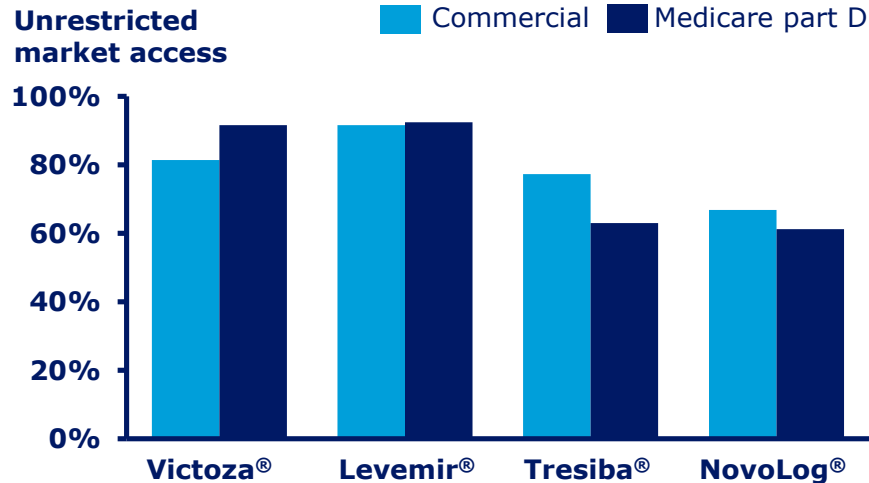
GLP-1 TRx — Victoza® — exenatide
market share — albiglutide — dulaglutide



Source: IMS NPA monthly, May 2017

Broad market access across the diabetes portfolio expected to be maintained in the US for 2018

Current level of unrestricted market access for key Novo Nordisk diabetes products in the US



Source: FingerTip Formulary, May 2017

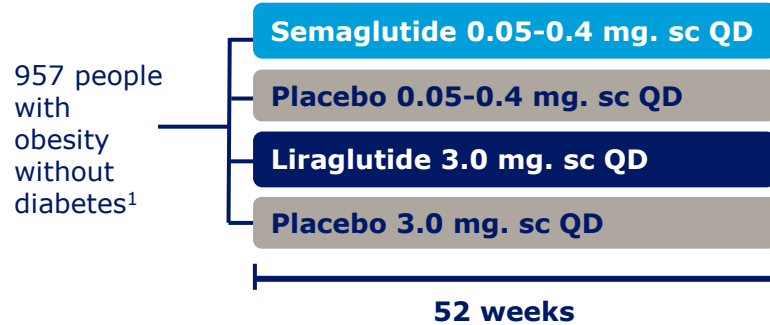
Note: Unrestricted access excludes prior authorisation, step edits and other restrictions

US formulary negotiations and 2018 pricing

- For 2018, formulary negotiations with pharmacy benefit managers and managed care organisations in the US are progressing
- Subject to the final outcome of these negotiations, average prices after rebates are expected to be lower compared with the levels in 2017, predominantly driven by the basal insulin segment
- Market access is anticipated to remain broadly unchanged across the diabetes portfolio at a level similar to 2017

Semaglutide in obesity demonstrated an adjusted average weight loss of 13.8% with the highest dose in phase 2 trial

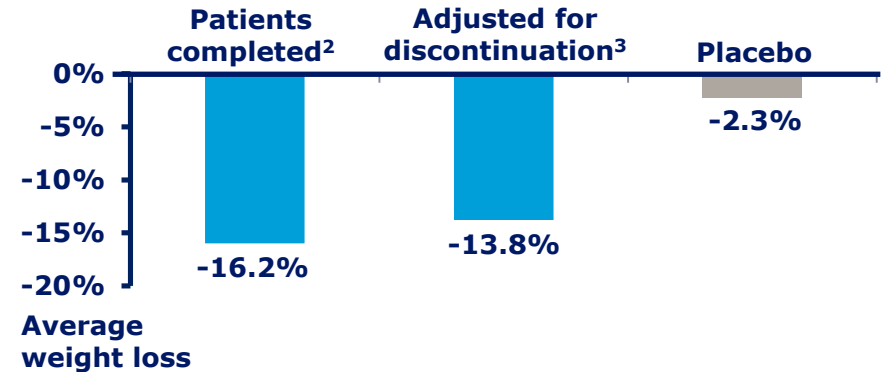
Semaglutide in obesity phase 2 trial design



¹Inclusion criteria: Male or female, age ≥ 18 yrs, BMI ≥ 30 kg/m², stable body weight, preceding failed dietary effort, no diabetes (HbA1c $<6.5\%$), no history of pancreatitis (acute or chronic) or multiple endocrine neoplasia

Note: All treatment arms are adjunct to diet and exercise
sc: Subcutaneous; QD: Once-daily

Key results and next steps



Next steps: Phase 3 clinical trial programme to be initiated in the first half of 2018

²Includes patients who completed treatment. From a mean baseline weight of around 111 kg an average weight loss up to 17.8 kg was observed. ³Includes people discontinuing treatment in the study.

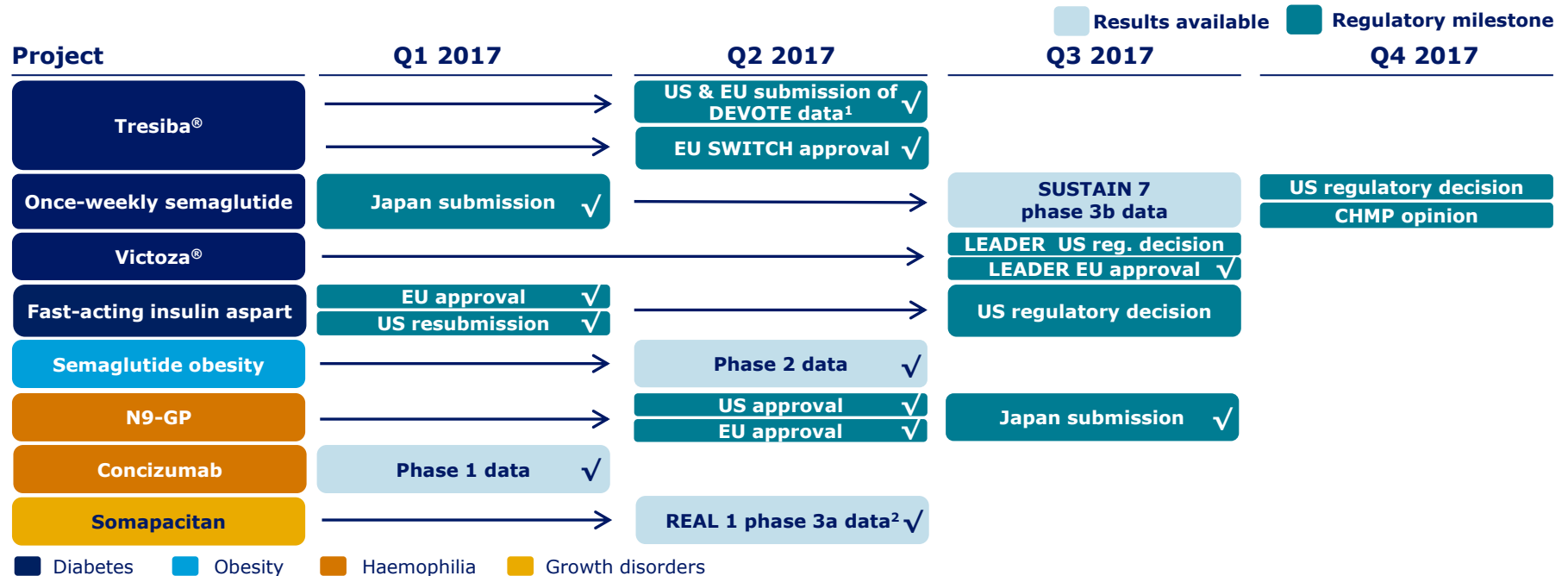
Key development milestones reached

Diabetes	<ul style="list-style-type: none">• Data from the DEVOTE trial submitted in the US and the EU for a label update of Tresiba®• The US application for including SWITCH trials in the Tresiba® label to be reviewed in the context of the DEVOTE trial• Victoza® approved in the EU as the only GLP-1 with a label to include prevention of CV events• Positive 17-2 vote from FDA Advisory Committee that Victoza® reduces the cardiovascular risk in people with type 2 diabetes
Obesity	<ul style="list-style-type: none">• EU label update for Saxenda® based on the LEADER trial approved by the European Commission
Biopharm	<ul style="list-style-type: none">• REBINYN® approved in the US and Refixia® approved in the EU (N9-GP)• New Drug Application for N9-GP submitted to the Japanese Ministry of Health• Positive results from pivotal phase 3a trial with long-acting growth hormone somapacitan (NN8640)¹

FDA: Food and Drug Administration; CV: Cardiovascular

¹Indication in adult growth hormone deficiency

Significant regulatory news flow in 2017

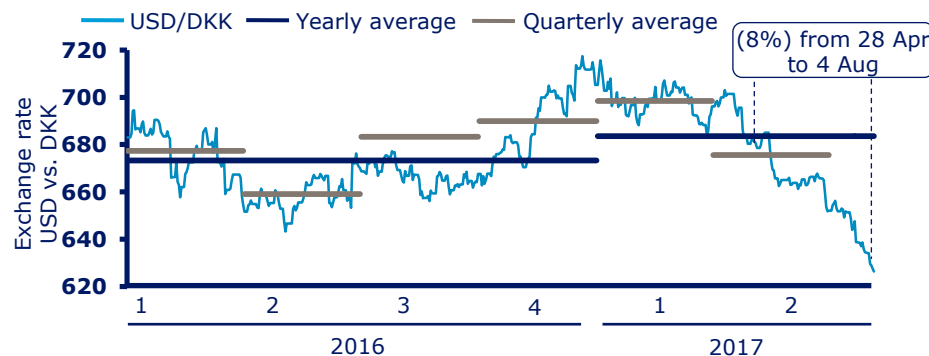
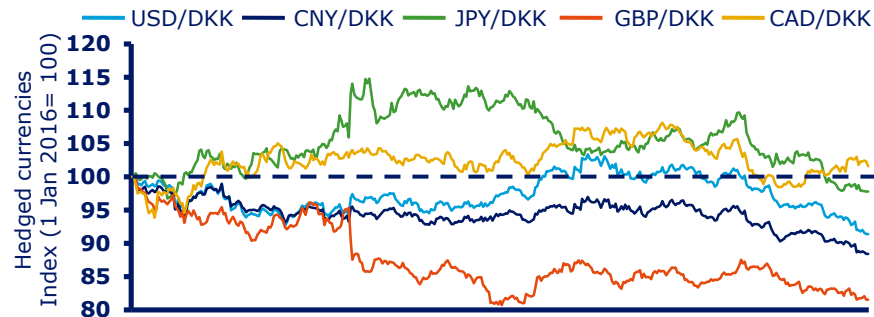


¹ It is Novo Nordisk's assessment that FDA plans to review the SWITCH studies in the context of the data from the recently submitted DEVOTE trial. Feedback expected by the end of Q1 2018. ² Study conducted in adult growth hormone disorder
CHMP: Committee for Medicinal Products for Human Use in the EU

Financial results – first six months 2017

DKK million	H1 2017	H1 2016	Change (reported DKK)	Change (local currency)
Sales	57,090	54,671	4%	3%
Gross profit	48,430	46,392	4%	3%
<i>Gross margin</i>	84.8%	84.9%		
Sales and distribution costs	13,548	13,608	(0%)	(1%)
<i>Percentage of sales</i>	23.7%	24.9%		
Research and development costs	6,703	6,635	1%	1%
<i>Percentage of sales</i>	11.7%	12.1%		
Administration costs	1,770	1,781	(1%)	(2%)
<i>Percentage of sales</i>	3.1%	3.3%		
Other operating income, net	467	438	7%	5%
Operating profit	26,876	24,806	8%	6%
<i>Operating margin</i>	47.1%	45.4%		
Financial items (net)	(1,229)	(251)	390%	
Profit before income tax	25,647	24,555	4%	
Income taxes	5,540	5,132	8%	
<i>Effective tax rate</i>	21.6%	20.9%		
Net profit	20,107	19,423	4%	
Diluted earnings per share (DKK)	8,07	7,63	6%	

The US dollar has depreciated 8% since Q1 2017 report, leading to a 4%¹ negative operating profit impact



Hedged Currencies ²	2016 average ³	2017 average ³	Spot rate Q1 (28 Apr)	Spot rate Q2 (4 Aug)	Change
USD	673	680	680	626	(8%)
CNY	101.3	99.2	98.6	93.2	(5%)
JPY	6.21	6.05	6.10	5.69	(7%)
GBP	911	860	880	823	(6%)
CAD	508	514	499	498	(0%)

Hedged Currencies ²	Impact of a 5% move ⁴	Hedging (months)
USD	1,900	12
CNY	305	6 ⁵
JPY	185	12
GBP	85	13
CAD	80	11

¹ Reported operating profit is now expected to be negatively impacted by 4 percentage points compared with the expected positive impact of 1 percentage point as guided in connection with the report for the first three months of 2017. The change reflects the significant depreciation of the US dollar and other key invoicing currencies versus the Euro and the Danish krone.

² DKK per 100; ³ As of 4 August 2016 and 2017, respectively; ⁴ Operating profit in DKK million per annum; ⁵ Chinese Yuan traded offshore (CNH)

Financial outlook for 2017

	Expectations 9 August 2017	Previous expectations 3 May 2017
Sales growth - local currencies	1% to 3%	0% to 3%
Sales growth - reported	Around 3 percentage points lower	Around 1 percentage points higher
Operating profit growth - local currencies	1% to 5%	-1% to 3%
Operating profit growth - reported	Around 4 percentage points lower	Around 1 percentage points higher
Financial items (net)	Loss of around DKK 0.2 billion	Loss of around DKK 1.8 billion
Effective tax rate	21-22%	21-23%
Capital expenditure	Around DKK 9.5 billion	Around DKK 10 billion
Depreciation, amortisation and impairment losses	Around DKK 3 billion	Around DKK 3 billion
Free cash flow	Around DKK 29-33 billion	Around DKK 29-33 billion

The financial outlook is based on an assumption of a continuation of the current business environment and given the current scope of business activities and has been prepared assuming that currency exchange rates remain at the level as of 4 August 2017

Closing remarks

Solid leadership positions and continued market opportunities

- 27%** Novo Nordisk value market share in diabetes care and solid leadership position
- ~5%** insulin market volume growth
- 44%** Novo Nordisk insulin volume market share with leadership position across all regions
- >20%** GLP-1 volume market growth
- 55%** Novo Nordisk GLP-1 volume market share with strong global leadership position
- 19** countries successfully launched Saxenda®

Promising pipeline and product launches

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

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

Investor contact information

Share information

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

Upcoming events

01 Nov 2017 Financial statement for the first nine months of 2017

01 Feb 2018 Financial statement for 2017

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Appendix

1. Novo Nordisk at a glance

2. Diabetes and obesity

3. Biopharmaceuticals

4. Financials

5. Sustainability

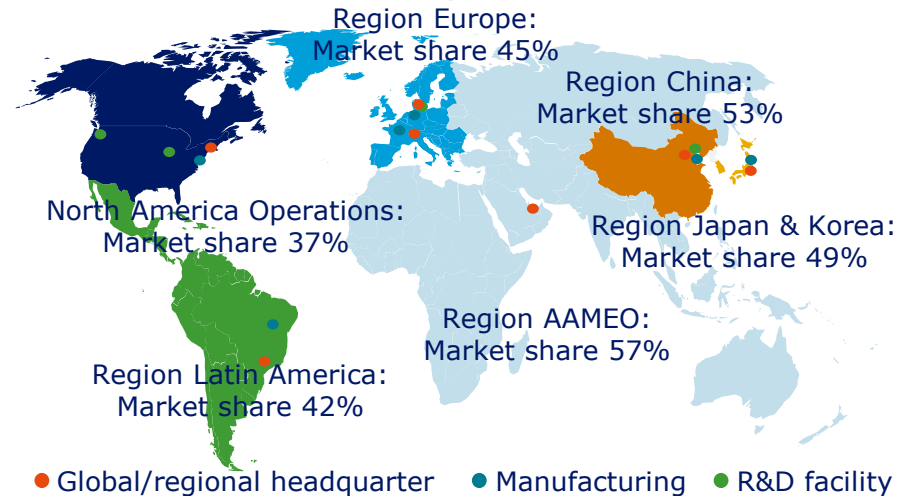
Novo Nordisk at a glance

Global leader in diabetes care

- A **focused** pharmaceutical company with **leading positions** in diabetes, haemophilia and growth hormone
- Significant **growth opportunities** driven by the diabetes pandemic, fuelled by global presence and strong research and development pipeline
- **High barriers to entry** in biologics
- **Operating profit growth** targeting **5% 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 May 2017 volume figures
AAMEO: Africa, Asia, Middle East & Oceania

Our strategic foundation remains solid and our core purpose unchanged

STRATEGIC PRIORITIES

Strengthen leadership in
DIABETES CARE

Strengthen leadership in
OBESITY CARE

Pursue leadership in
HAEMOPHILIA

Strengthen leadership in
GROWTH DISORDERS

Expand into other
SERIOUS CHRONIC DISEASES

CORE CAPABILITIES

Engineering, formulating, developing and delivering protein-based treatments

Deep disease understanding

Efficient large-scale production of proteins

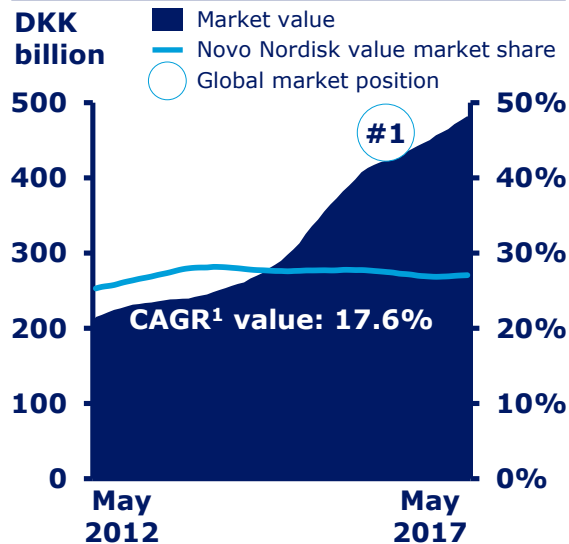
Global commercial reach and leader in chronic disease care

Driving change to defeat diabetes and other serious chronic conditions

Novo Nordisk Way

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

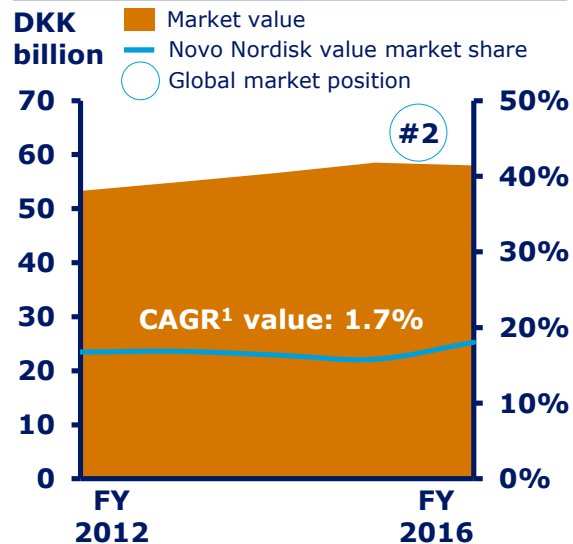
Diabetes



¹ CAGR for 5-year period
Source: IMS MAT May, 2017 value figures

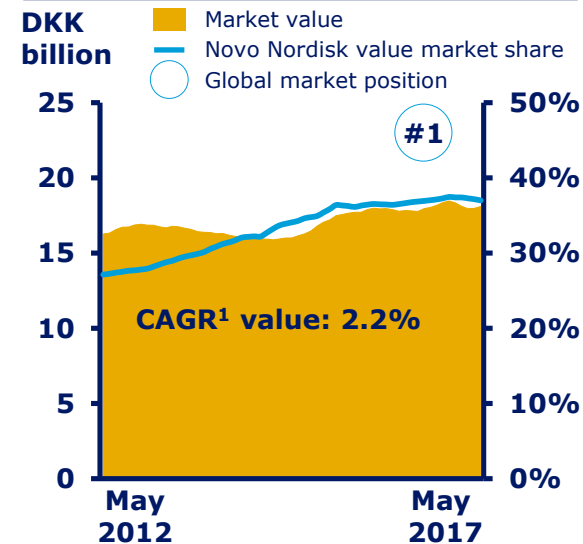
changing
diabetes®

Haemophilia



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

Growth disorders

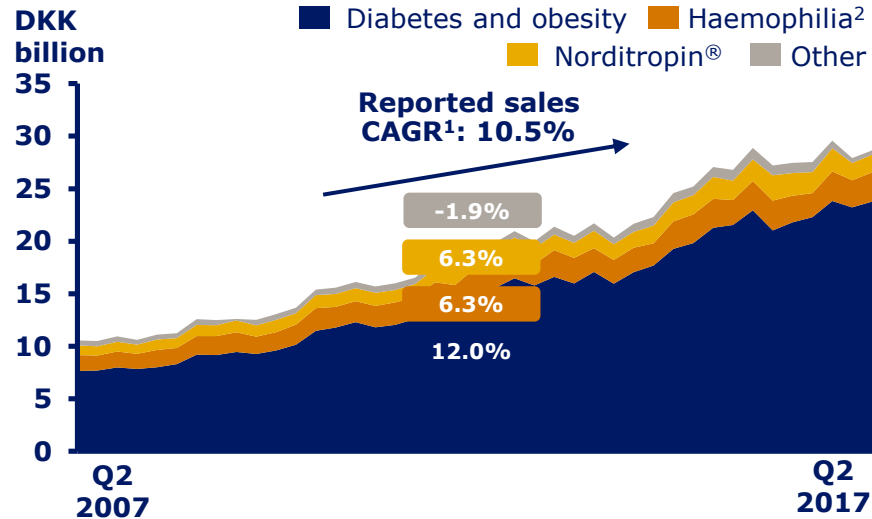


¹ CAGR for 5-year period
Source: IMS MAT May, 2017 value figures



Top line growth driven by the diabetes pandemic

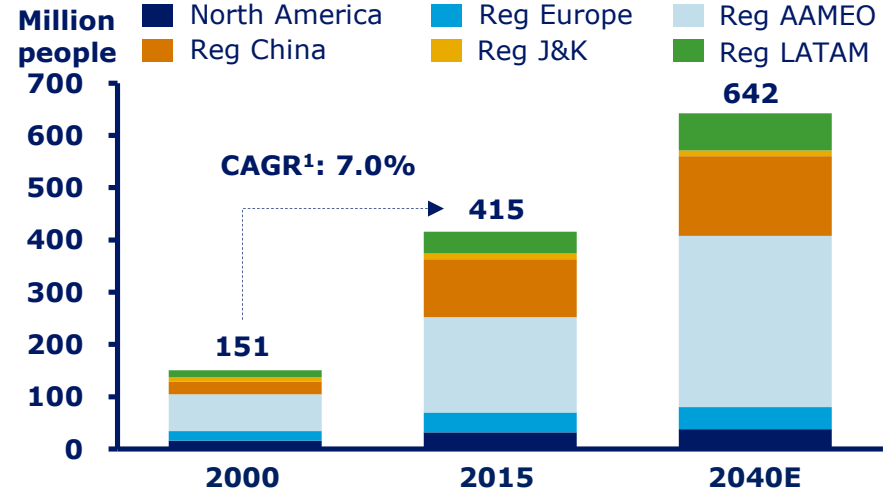
Novo Nordisk reported quarterly sales by therapy



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



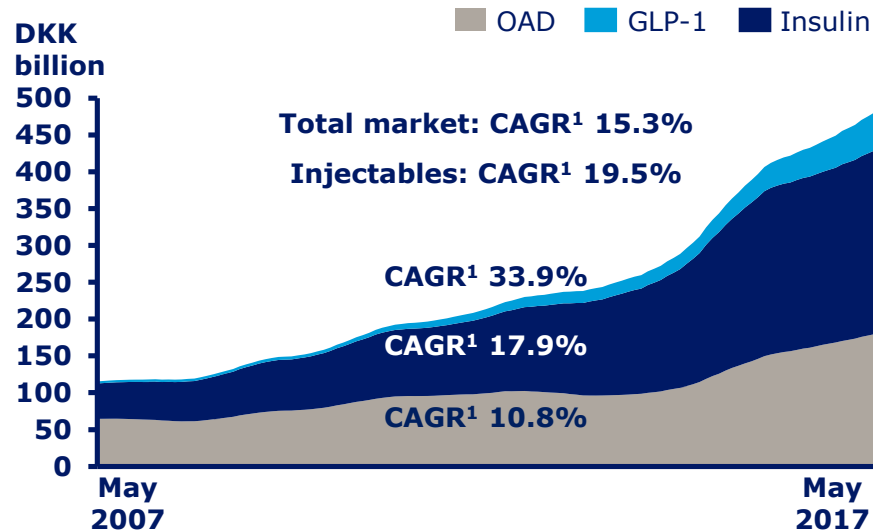
Reg: Region; J&K: Japan & Korea; AAMEO: Africa, Asia, Middle-East and Oceania; LATAM: Latin America
Note: 20-79 age group

¹ CAGR for 15-year period

Source: International Diabetes Federation: Diabetes Atlas 1st and 7th Edition, 2000 and 2015

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

Global diabetes care market by treatment class

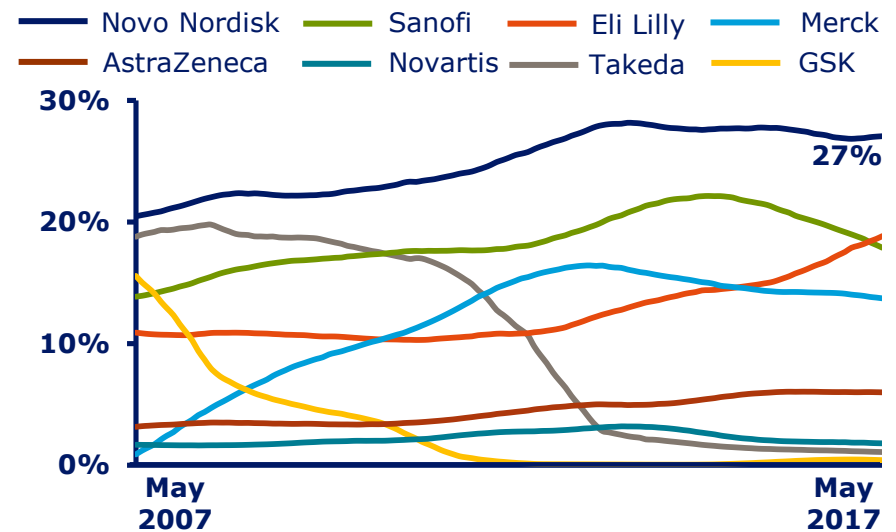


¹ CAGR for 10-year period

OAD: Oral Anti-diabetic

Source: IMS Monthly MAT May, 2017 value figures

Global diabetes care value market share



Source: IMS Monthly MAT May, 2017 value figures

Significant growth opportunities fuelled by strong 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

NN9423 – Tri-agonist 1706

NN7415 – Concizumab

NN7170 – Sc N8-GP

PHASE 2

Semaglutide – QD GLP-1

Anti-IL-21 and liraglutide

Semaglutide – QD GLP-1

Semaglutide NASH

PHASE 3

Oral GLP-1

N8-GP – Long-acting rFVIII

Somapacitan – QW GH²

SUBMITTED

Fast-acting insulin aspart (US)

Semaglutide – QW GLP-1

APPROVED¹

Levemir®

NovoRapid®

NovoMix®

Tresiba®

Ryzodeg®

Xultophy®

Victoza®

Fiasp® (EU)

Saxenda®

NovoSeven®

NovoEight®

NovoThirteen®

REBINYN®/Refixia®³

Norditropin®

■ Diabetes

■ Haemophilia

■ Obesity & other

■ Growth disorders

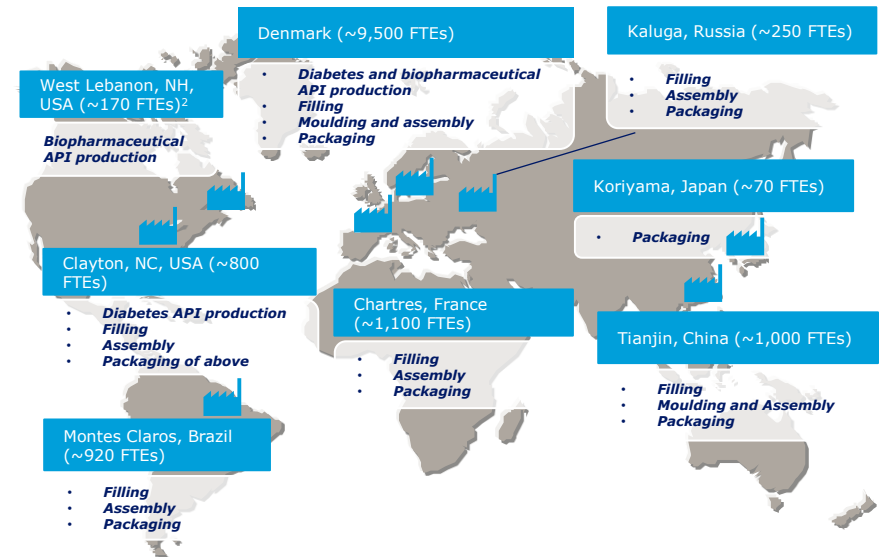
¹ Approved in all triad markets (US, EU and Japan), unless noted ² Study conducted in adult growth hormone disorder ³ REBINYN® is the brand name in the US and Refixia® in the EU
GG: Glucagon GLP-1

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

FTEs in sales regions¹

North America Operations:	~4,800
Region Africa, Asia, Middle-East and Oceania (AAMEO):	~4,500
Region China:	~3,000
Region Europe:	~2,700
Region Japan & Korea:	~1,200
Region Latin America:	~850
Total non-HQ/manufacturing FTEs:	~17,000¹

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 May 2017










² New Hampshire facility is currently under establishment

Solid patent protection of innovative drugs

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

Patent protection¹

Unique value chain position

	EU/US	
 fast-acting insulin aspart	2030 ²	<div style="background-color: #002060; color: white; padding: 10px; text-align: center; margin-bottom: 5px;">Research & Development</div> <div style="background-color: #002060; color: white; padding: 10px; text-align: center; margin-bottom: 5px;">Manufacturing</div> <div style="background-color: #002060; color: white; padding: 10px; text-align: center; margin-bottom: 5px;">Commercialisation</div> <ul style="list-style-type: none"> History of protein engineering Highly efficient, flexible and capital intensive manufacturing Global commercial footprint
 insulin degludec/liraglutide [DNA origin] injection	2029 ³	
 insulin degludec [DNA origin] injection	2028/29	
 70% insulin degludec and 30% insulin aspart [DNA origin] injection	2028/29	
 (insulin detemir)	2018/19	
 (biphasic insulin aspart)	exp 2015/17 ²	
 (insulin aspart)	2017 ² /17 ²	
 norditropin [®]	2023 ⁴ /23 ⁵	
	exp 2017/17 ²	

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.

Exp: Expired. Source: Novo Nordisk

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

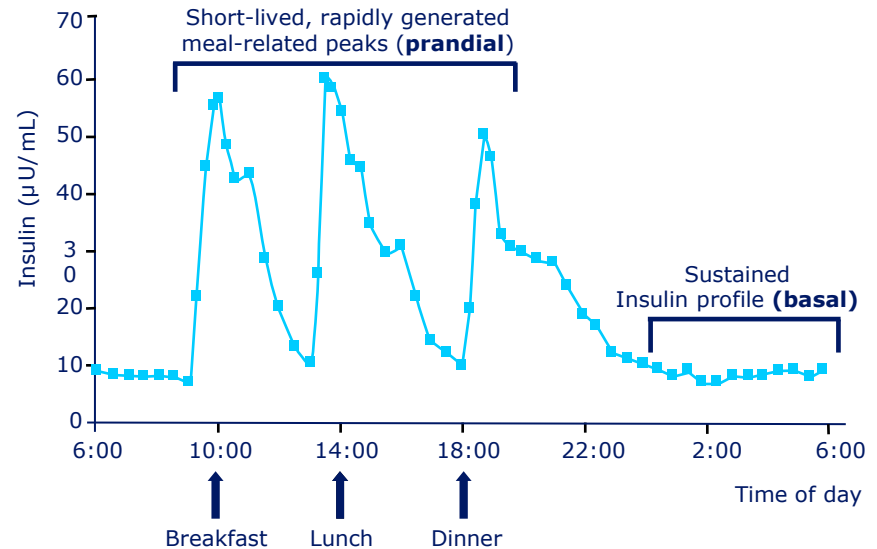
Type 2 diabetes: Characterised by some degree of insulin resistance and insulin deficiency

Insulin:

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

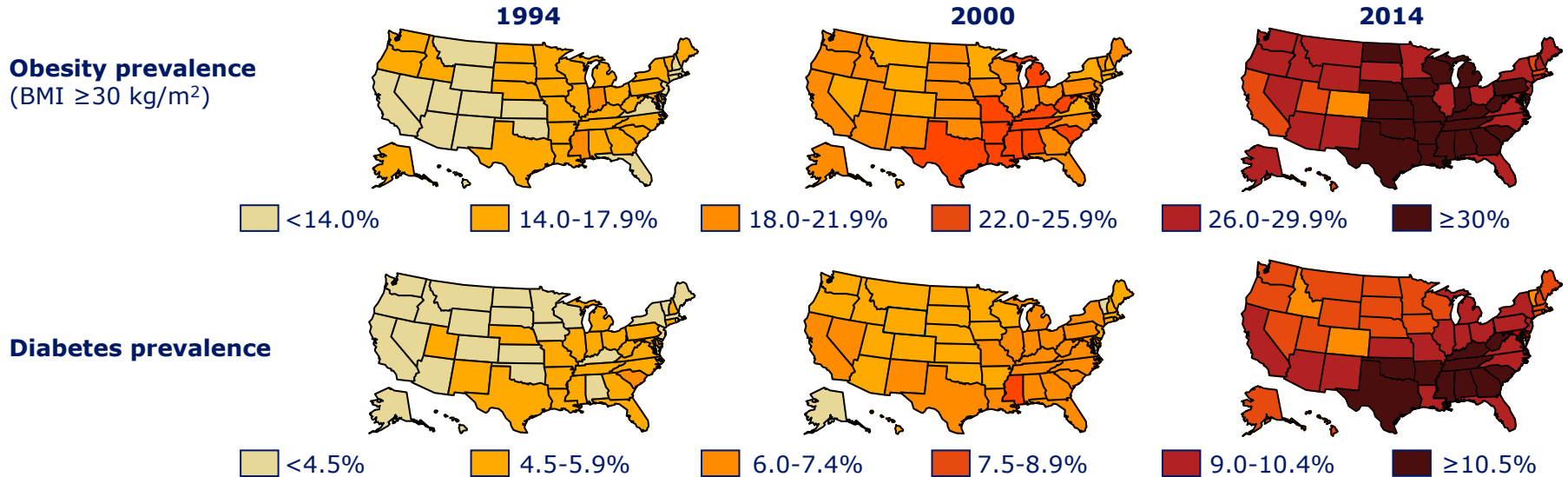


The aim of insulin therapy is to recreate normal blood insulin profile



Diabetes pandemic is fuelled by growing rates of obesity

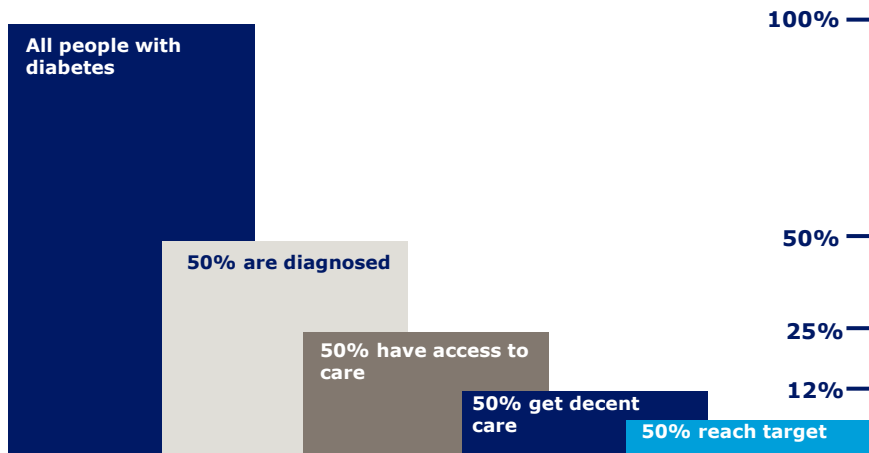
US CDC data on obesity and diabetes prevalence among adults



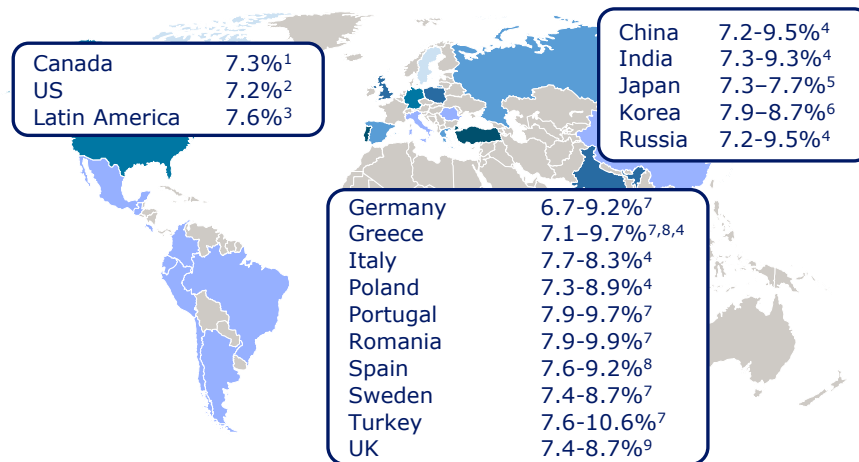
CDC: Centers for Disease Control and Prevention
Source: CDC's Division of Diabetes Translation. National Diabetes Surveillance System available at <http://www.cdc.gov/diabetes>

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

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



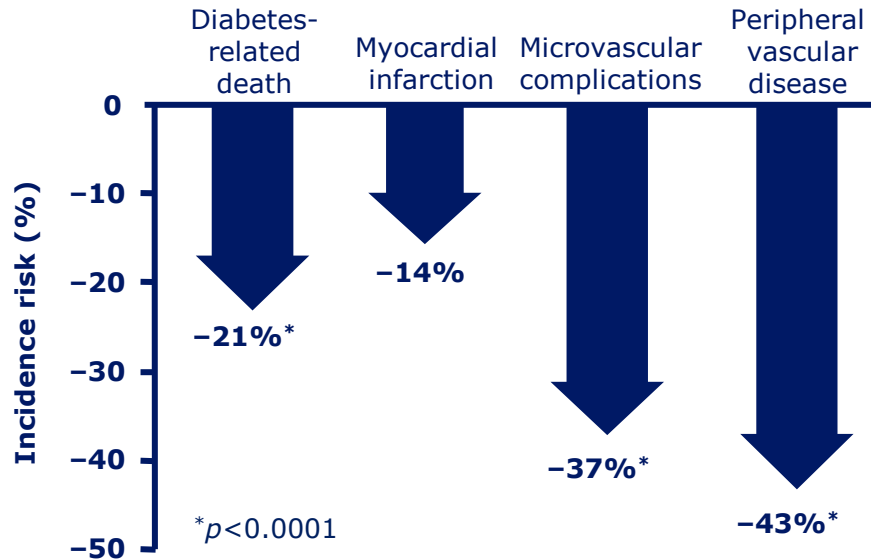
The worldwide challenge of glycaemic control: Mean HbA_{1c} in type 2 diabetes



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

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

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



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

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

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

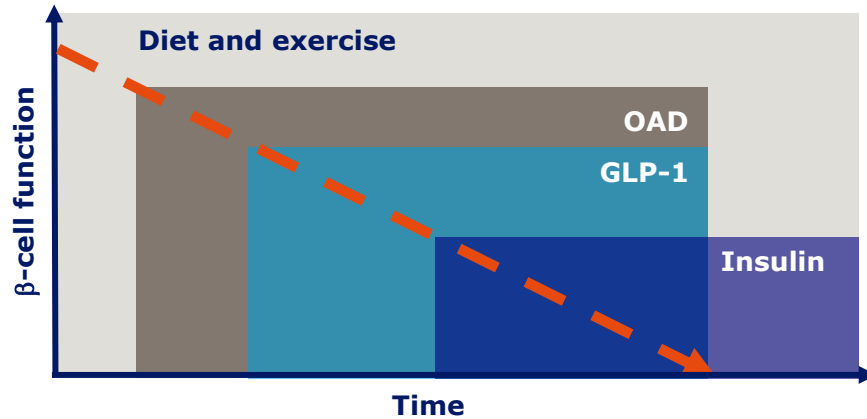
SU/Insulin treated patients	1997	2007
Microvascular disease	25	24
Diabetes-related death	10	17
Myocardial infarction	16	15
All-cause mortality	6	13

 Statistically significant improvement

Source: NEJM, vol. 359, Oct 2008

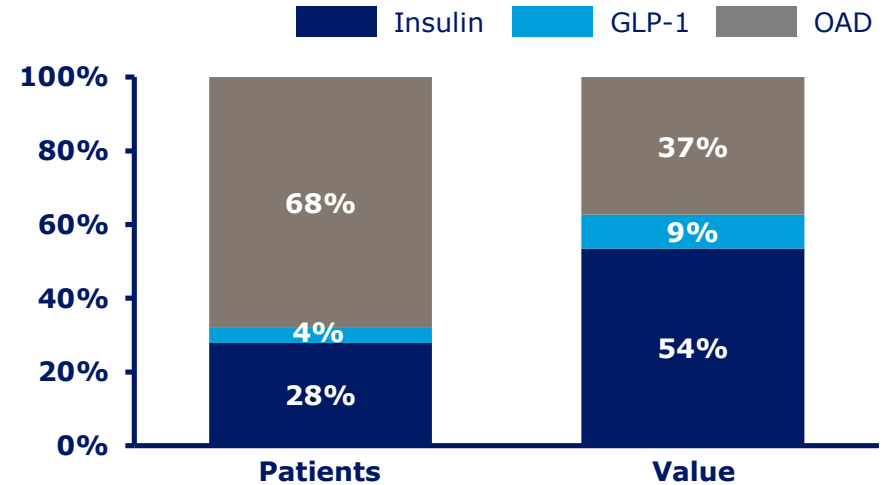
Insulin is the ultimate care for people with diabetes

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 May 2017
Source: IMS PharMetrix claims data, IMS disease analyser, IMS Midas

Medications used for the treatment of type 2 diabetes

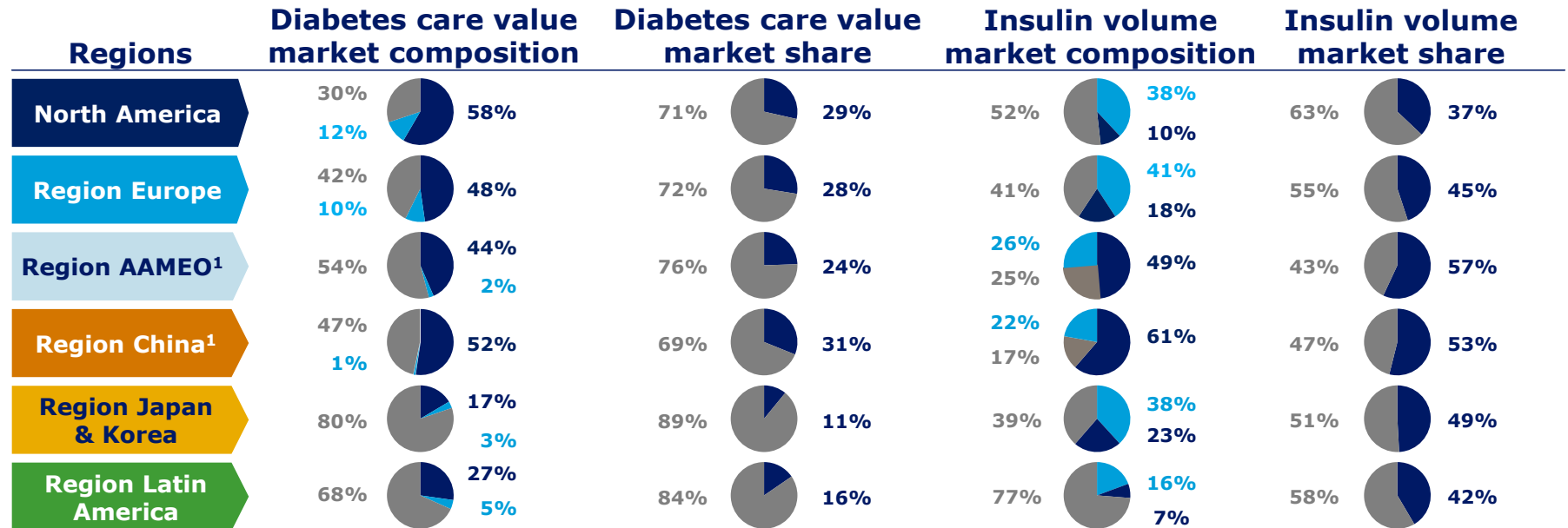
Commonly prescribed product classes for the treatment of type 2 diabetes

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

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

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

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



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

■ Insulin
 ■ GLP-1
 ■ OAD

■ Novo Nordisk
 ■ Others

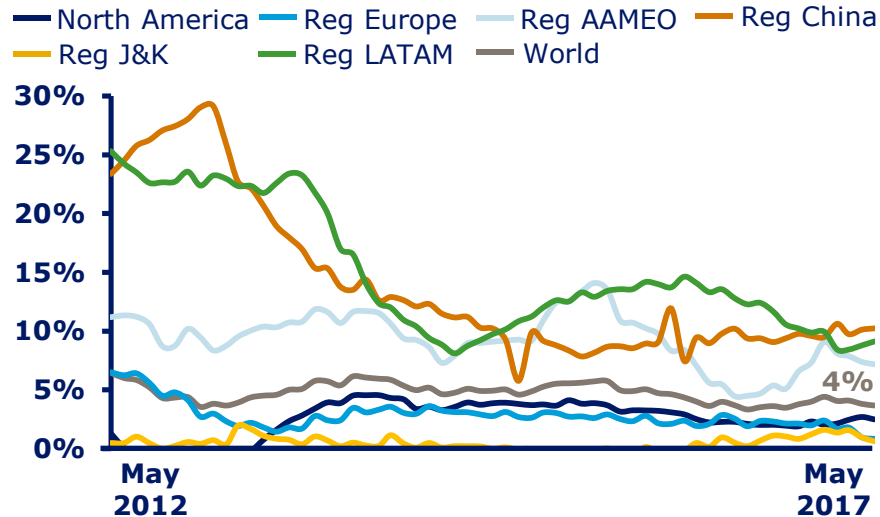
■ Fast-acting
 ■ Premix
 ■ Long-acting

■ Novo Nordisk
 ■ Others



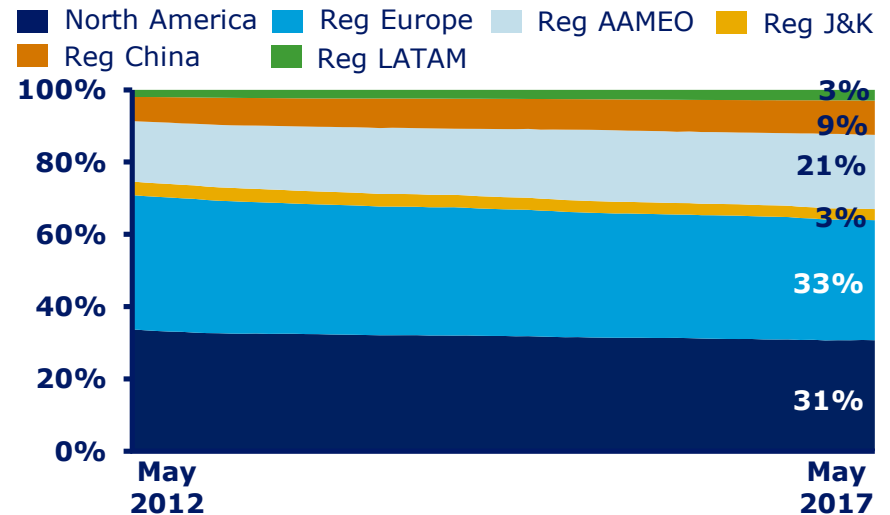
Stable global insulin volume growth

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 May, 2017 volume figures

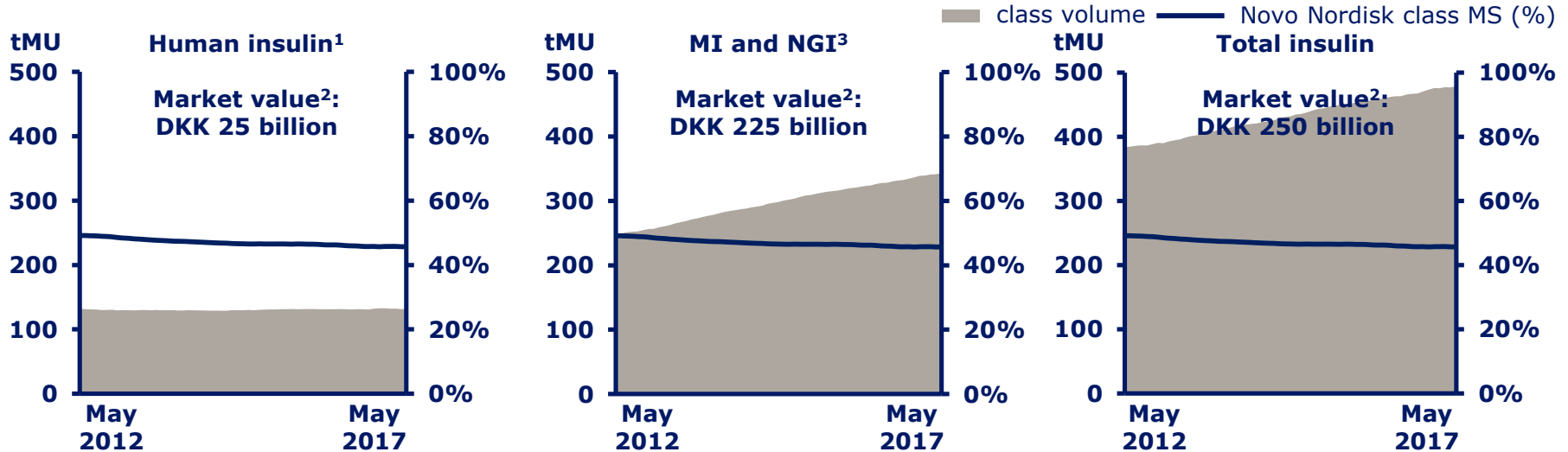
Regional insulin volume market split



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

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

Novo Nordisk global volume market share across insulin classes



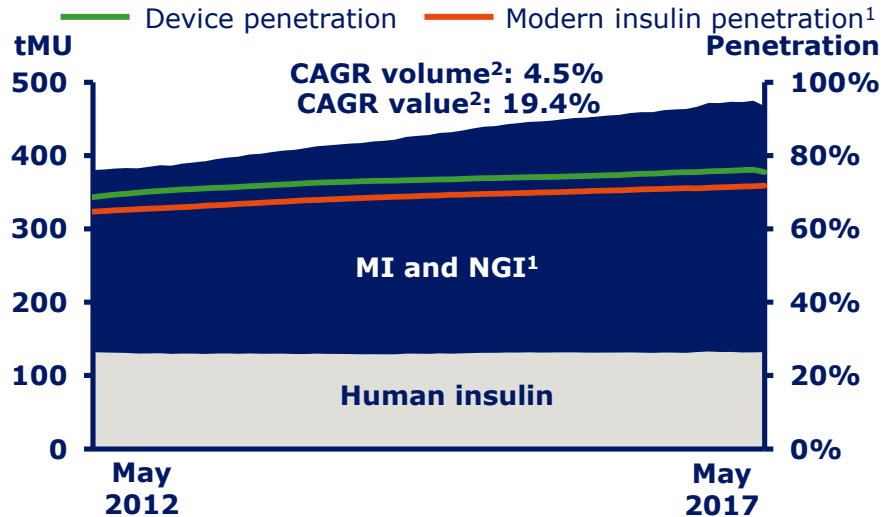
¹ Includes animal insulin. ² Annual value of total insulin class. ³ MI: Modern insulin.; NGI: New-generation insulin; tMU: Thousand mega units

Note: Data is sensitive to changes in IMS data collection and reporting methodology

Source: IMS, Monthly MAT May, 2017 value and volume figures

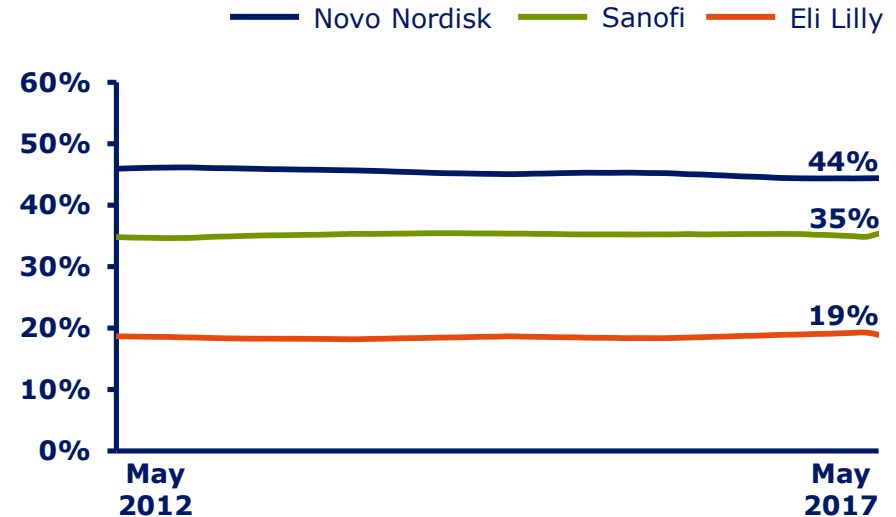
Strong underlying insulin market growth and sustained global volume market share

Global insulin market



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

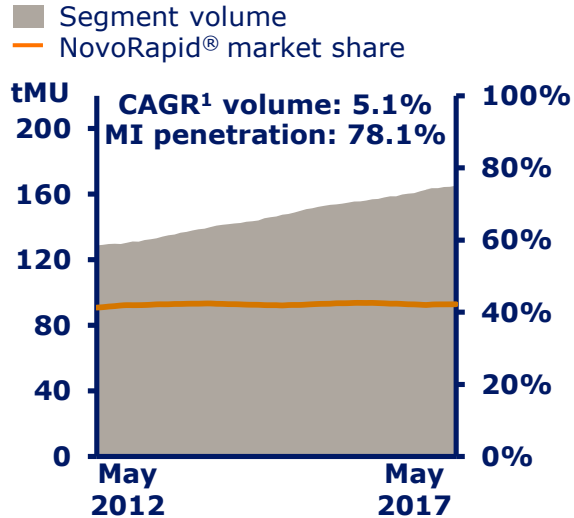
Global modern and new-generation insulin volume market shares



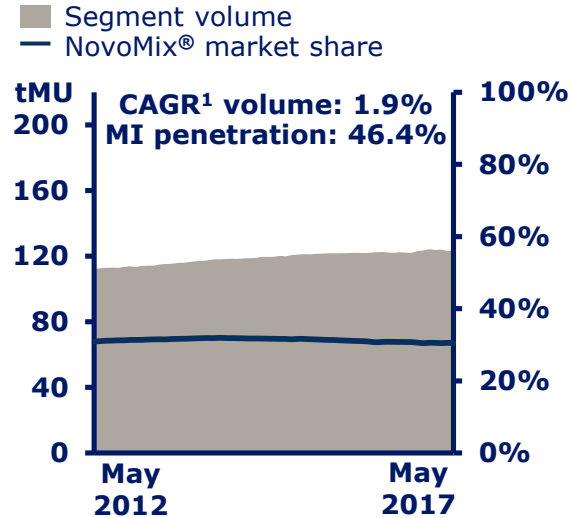
Note: Data is sensitive to changes in IMS data collection and reporting methodology, does not add up to 100% due to other manufacturers
Source: IMS Monthly MAT May, 2017 volume figures

Continued global single digit volume growth within the modern insulin segments

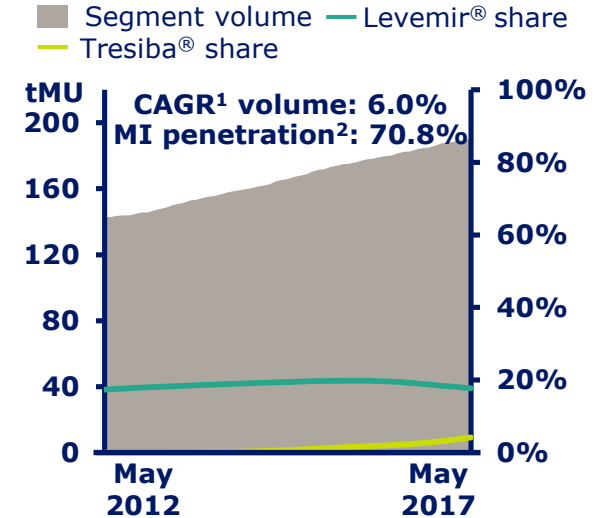
Fast-acting insulin



Premix insulin



Long-acting insulin



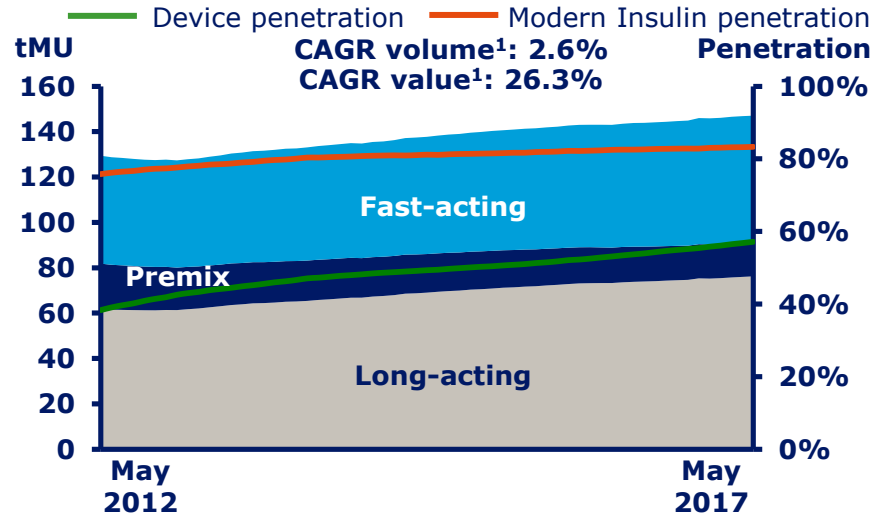
¹ CAGR for 5-year period. ² Includes new-generation Insulin. tMU: Thousand mega units

Note: Modern insulin (MI) penetration is of total segment, ie including animal and human insulin; Data is sensitive to changes in IMS data collection and reporting methodology

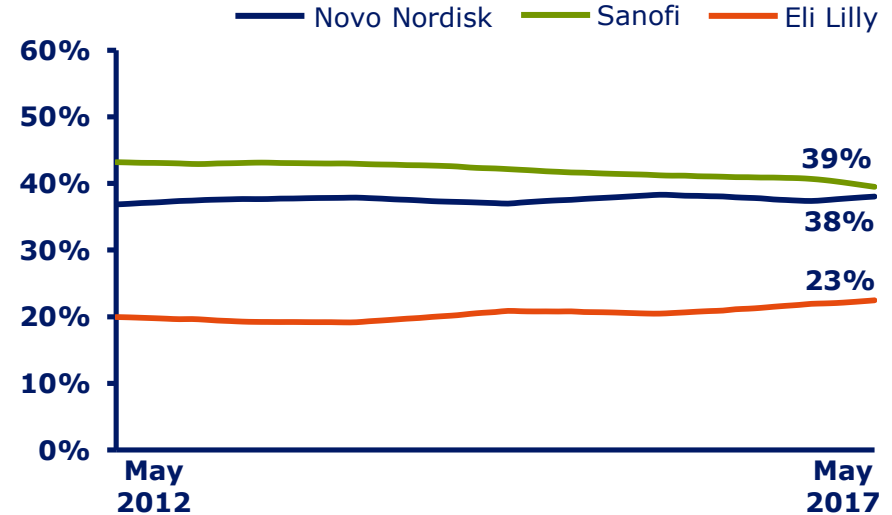
Source: IMS Monthly MAT May, 2017 volume figures

Solid US market share within the modern and new-generation insulin segment

Insulin market by segments in the US



MI and NGI volume market shares in the US

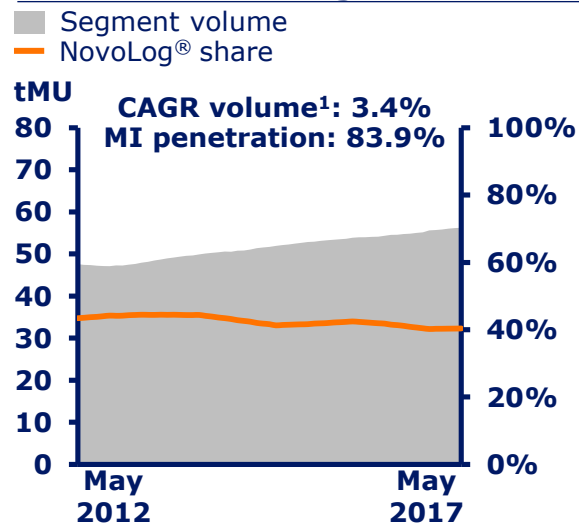


¹ CAGR for 5-year period
 Source: IMS Monthly MAT May, 2017 volume and value (DKK) figures

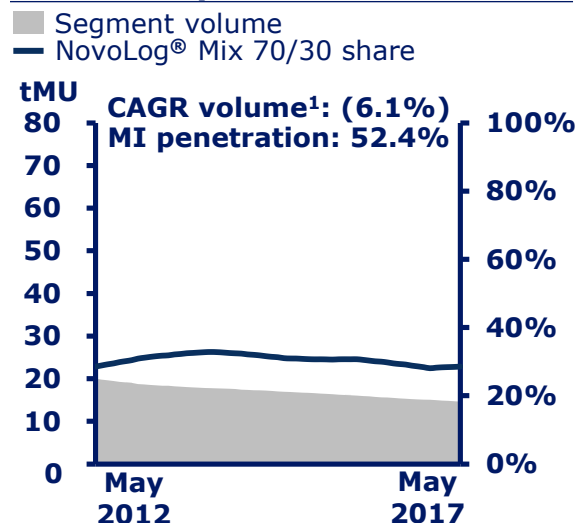
Source: IMS Monthly MAT May, 2017 volume figures

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

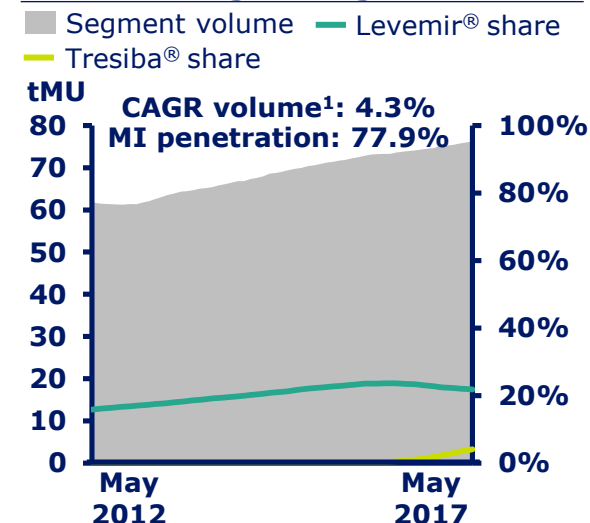
US fast-acting insulin



US premix insulin



US long-acting insulin



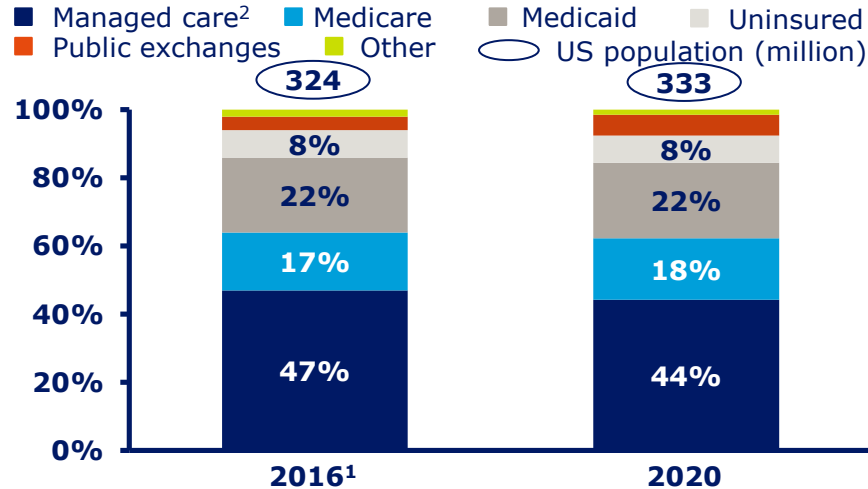
¹ CAGR for 5-year period; tMU: Thousand mega units

Note: US trend data reflect changes to IMS data collection coverage and methodology as of January 2012. Modern insulin (MI) penetration is of total segment, ie including human insulin

Source: IMS Monthly MAT May, 2017 volume figures

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

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



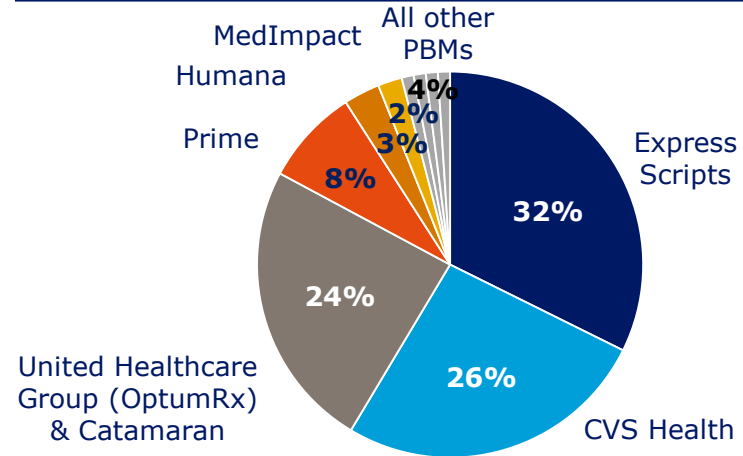
¹ 2016 data reflect historical data in Jan 2016

² Managed care population was slightly underestimated as only population under age 65 were captured to avoid double counting with those eligible for Medicare.

Source: Congressional Budget Office Health Insurance Coverage 2016-2026; Medicare Enrollment Dashboard; CMS Health Insurance Enrollment Projection 2015-2025; Medicaid and CHIP Enrollment Report Jan. 2016

changing
diabetes®

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



PBM: Pharmacy Benefit Manager

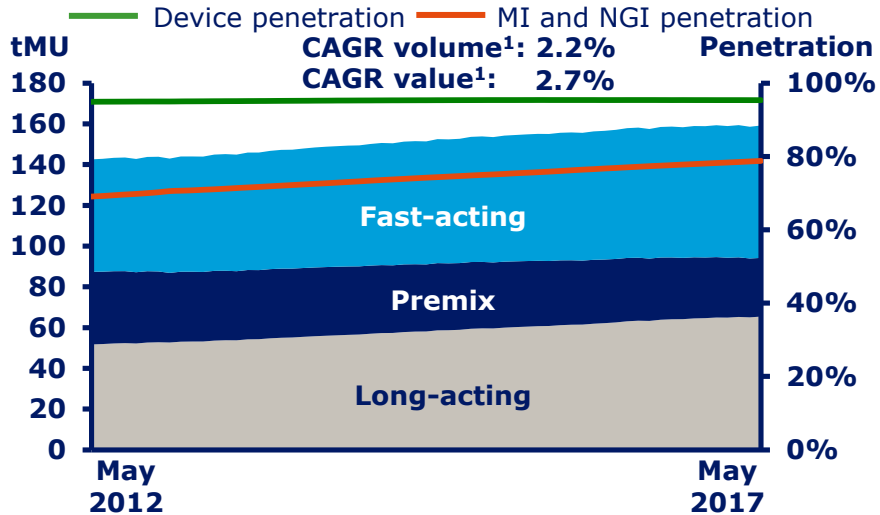
Note: Covers all main channels (Managed Care, Medicare Part D and Medicaid); market share based on claim adjudication coverage, i.e. not on formulary/rebate decision power

Source: Cleveland Research PBM Intelligence 2016



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

European insulin market by segments

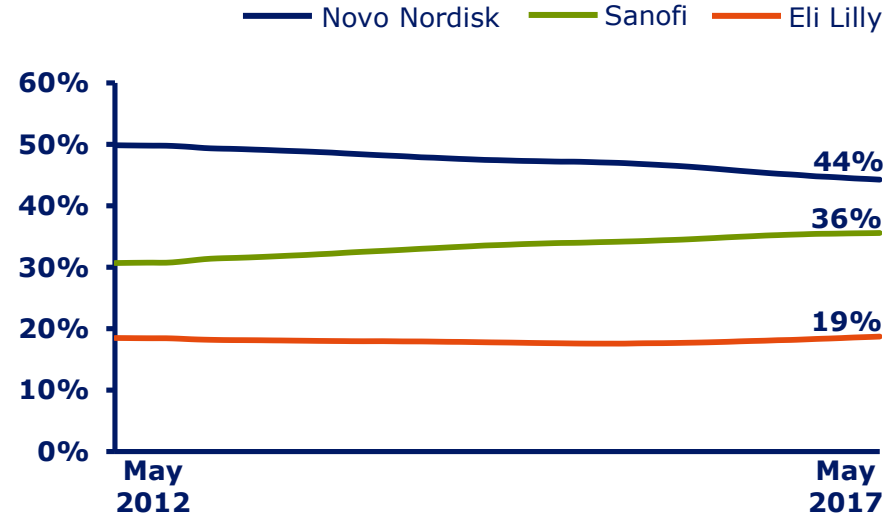


¹ CAGR for 5-year period

² MI: Modern insulin; NGI: New-generation insulin

Source: IMS Monthly MAT May, 2017 volume and value (DKK) figures

European MI and NGI volume market shares

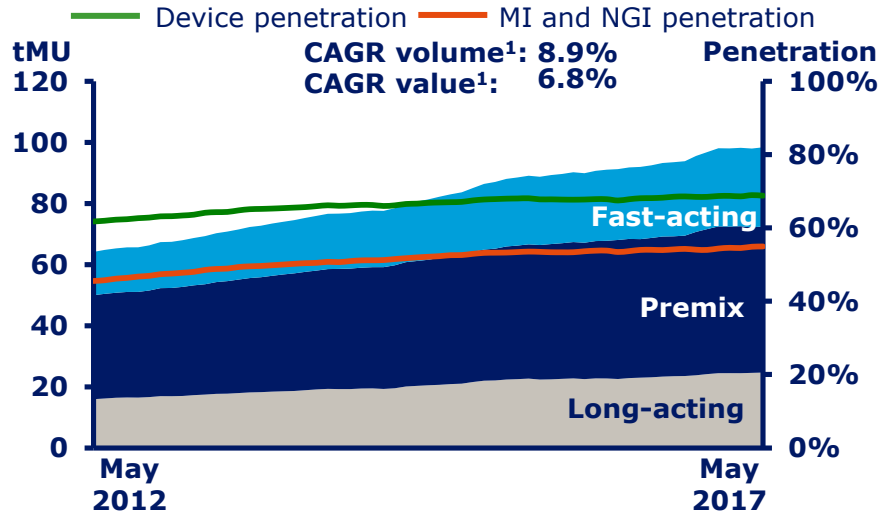


MI: Modern insulin; NGI: New-generation insulin

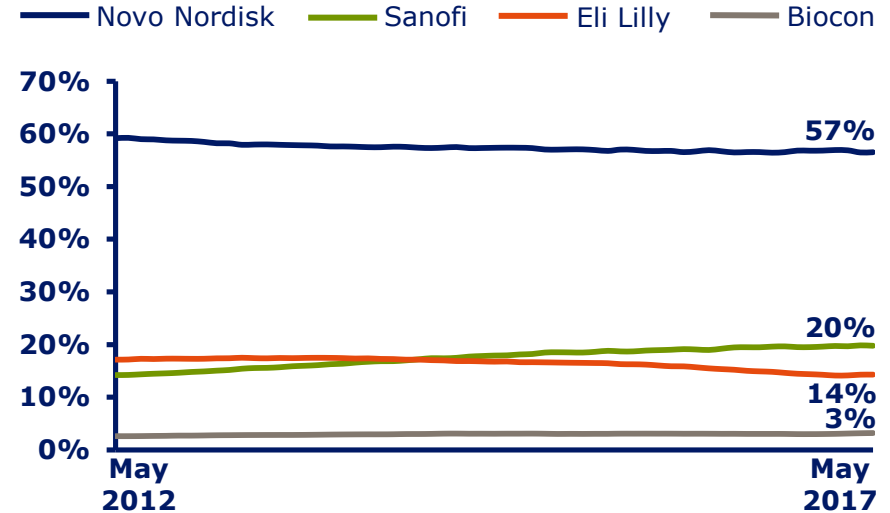
Source: IMS Monthly MAT May, 2017 volume figures, numbers do not add up to 100% due to smaller insulin manufacturers

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

Region AAMEO insulin market by segments



Region AAMEO MI and NGI volume market shares



¹ CAGR for 5-year period.

Note: IMS only covers the following 8 markets in AAMEO (retail data): Algeria, Egypt, India, New Zealand, Russia, Saudi Arabia, South Africa & Turkey

Source: IMS Monthly MAT May, 2017 volume and value (DKK) figures

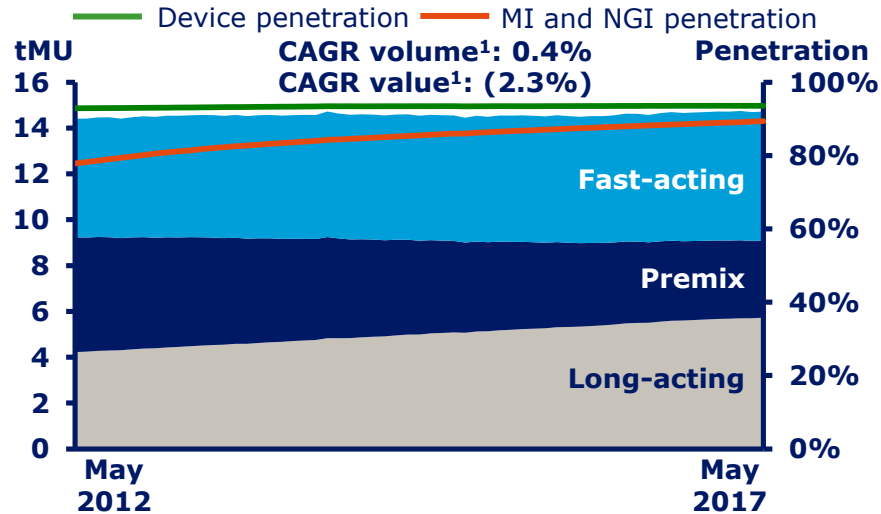
MI: Modern insulin; NGI: New-generation insulin

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

MI: Modern insulin; NGI: New-generation insulin

Solid market leadership position in Japan & Korea

Japan & Korea insulin market by segments

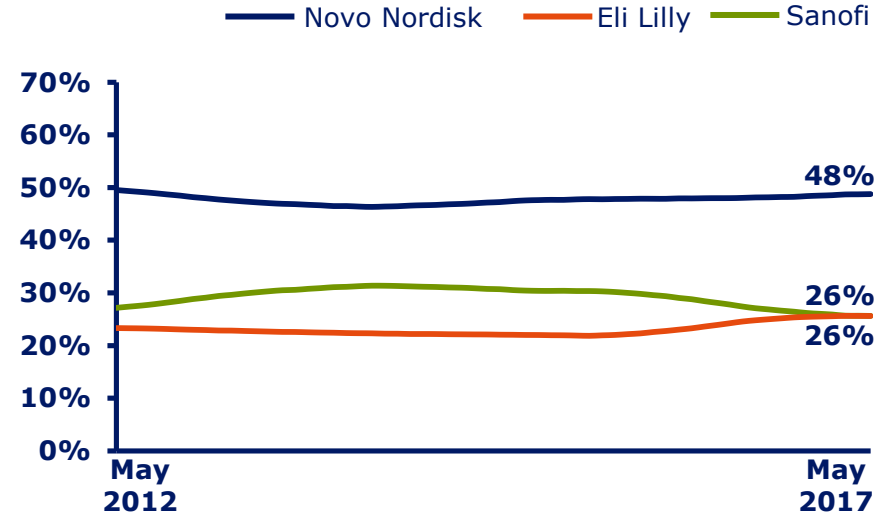


¹ CAGR for 5-year period

MI: Modern insulin; NGI: New-generation insulin

Source: IMS Monthly MAT May, 2017 volume and value (DKK) figures

Japan & Korea MI and NGI volume shares

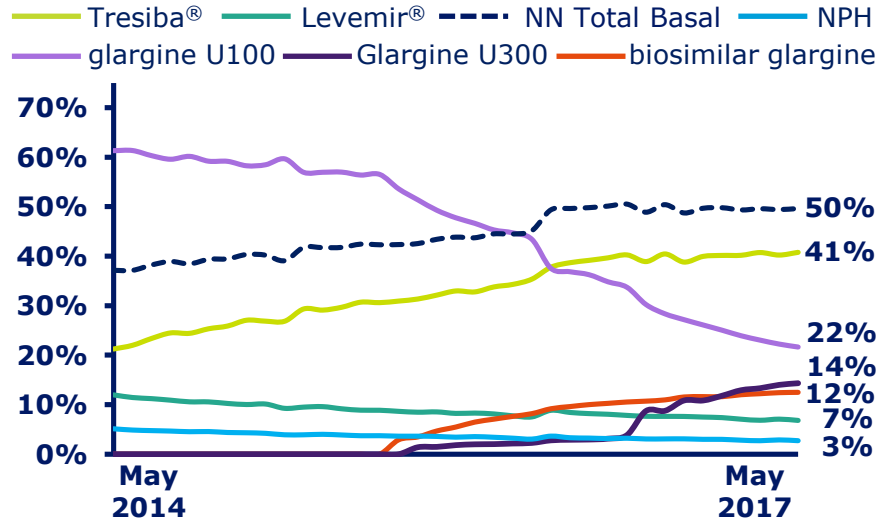


Source: IMS Monthly MAT May, 2017 volume figures

MI: Modern insulin; NGI: New-generation insulin

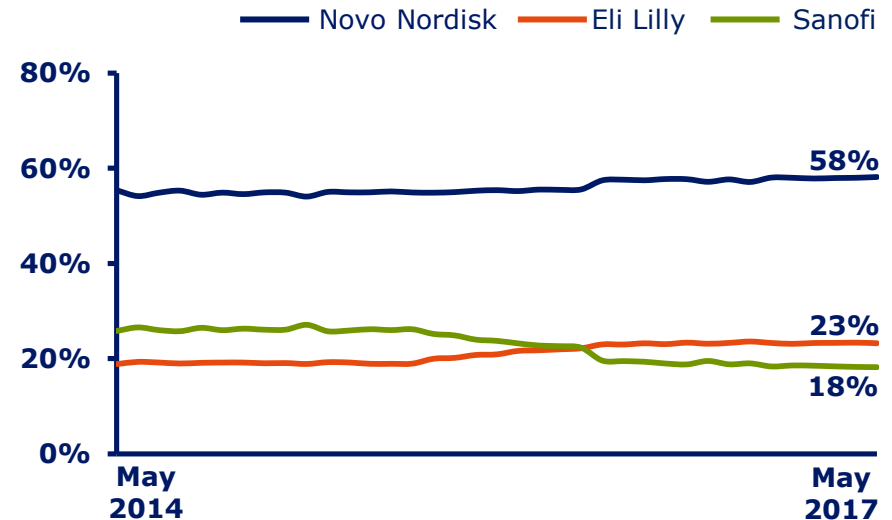
Solid Tresiba® performance strengthens basal insulin market share in Japan

Japanese basal value market shares



Source: IMS Monthly May, 2017 value figures

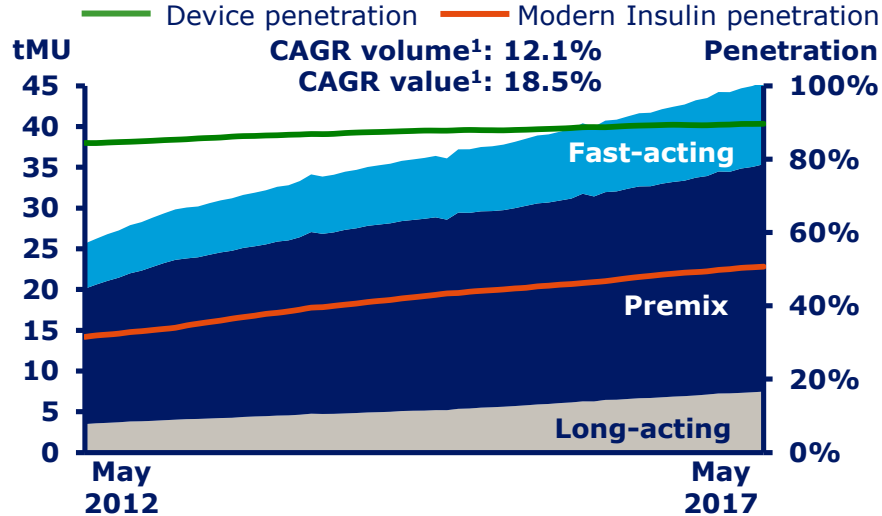
Japanese total insulin value market shares



Source: IMS Monthly May, 2017 value figures

Solid growth in the Chinese insulin market

Chinese insulin market by segments

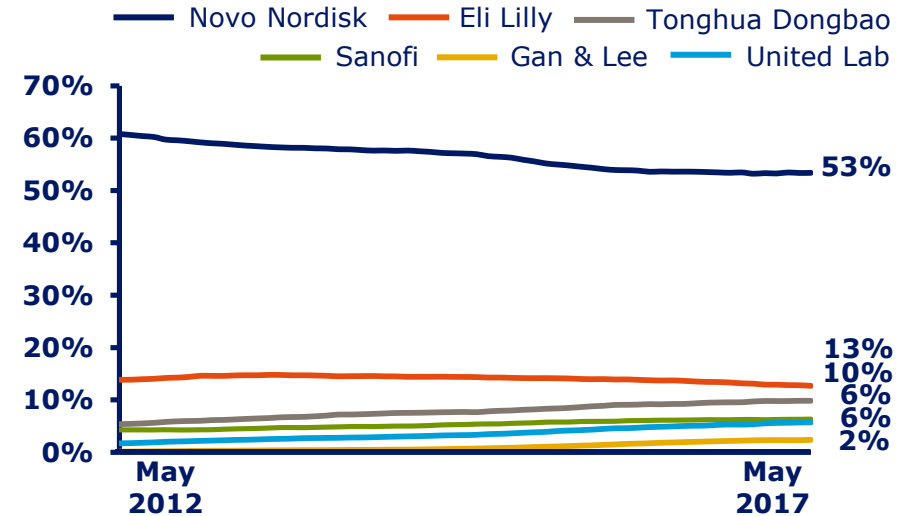


¹ CAGR for 5-year period

Note: IMS covers around 50% of the total Chinese market (hospital data)

Source: IMS Monthly MAT May, 2017 volume and value (DKK) figures

Chinese insulin volume market shares

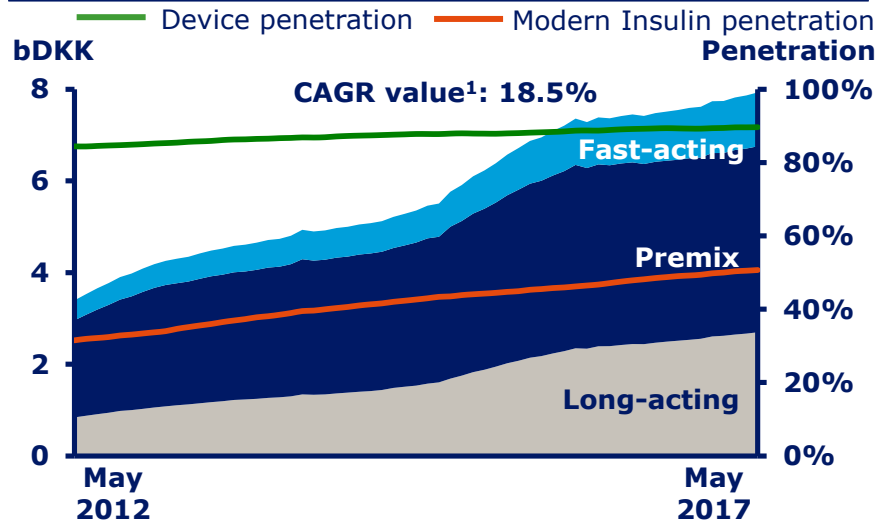


Note: Only selected competitors shown

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

Continued expansion of the modern insulin market in China

Chinese insulin market by segments

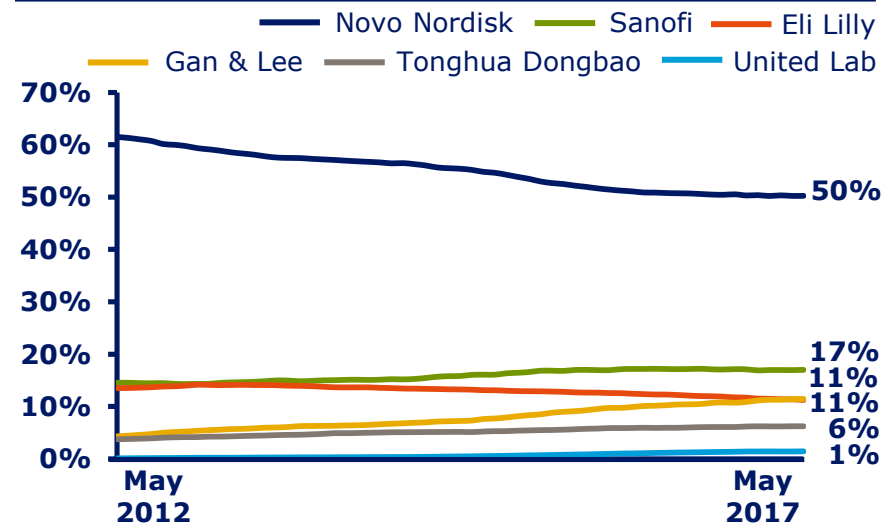


¹ CAGR for 5-year period

Note: IMS covers around 50% of the total Chinese market (hospital data)

Source: IMS Rolling MAT May, 2017 value (DKK) figures

Chinese total insulin value market shares

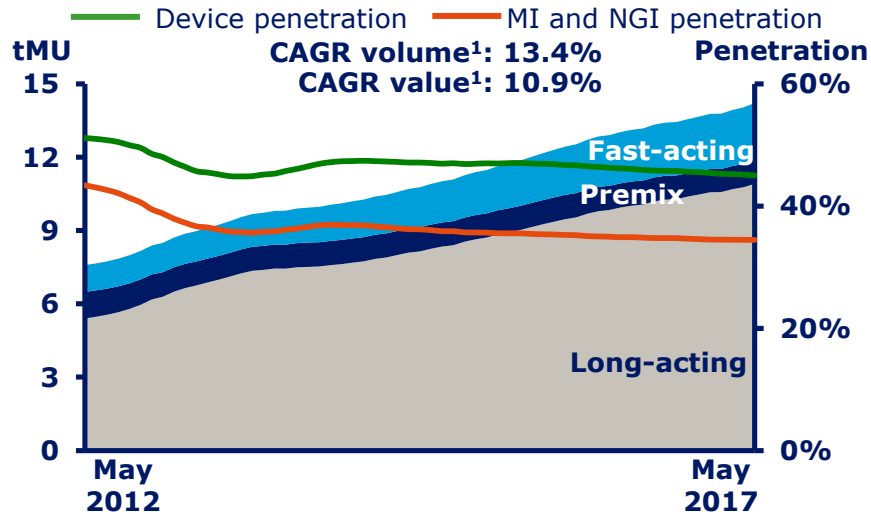


Note: Only selected competitors

Source: IMS Rolling MAT May, 2017 value figures, numbers do not add up to 100% due to smaller insulin manufacturers not included

Strengthened insulin volume market share in Latin America

Latin America insulin market by segments



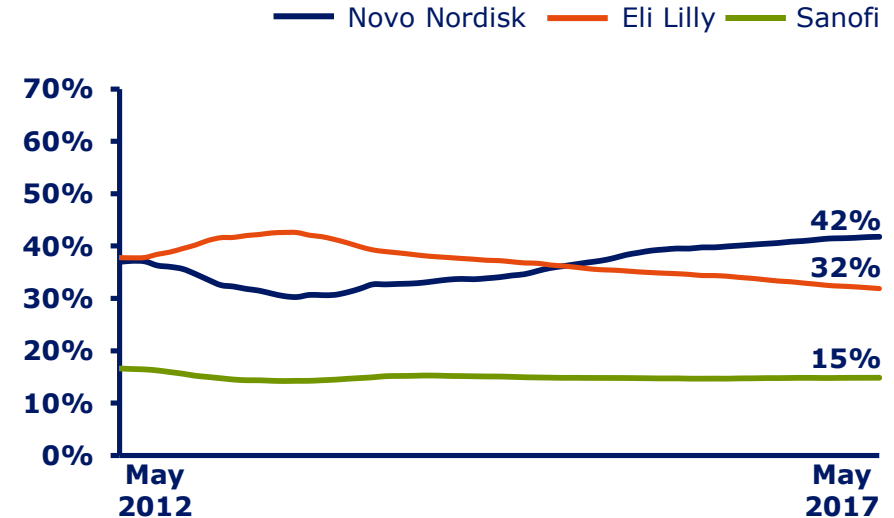
¹ CAGR for 5-year period

Note: IMS only covers the following 4 markets in Latin America (retail data): Argentina, Brazil, Colombia, Mexico

Source: IMS Monthly MAT May, 2017 volume and value (DKK) figures

MI: Modern insulin; NGI: New-generation insulin

Latin America MI and NGI volume shares



Note: Only top-3 shown

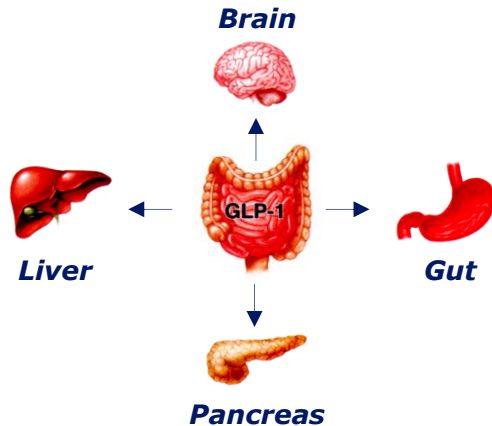
Source: IMS Monthly MAT May, 2017 volume figures, numbers do not add up to 100% due to smaller insulin manufacturers not included

MI: Modern insulin; NGI: New-generation insulin

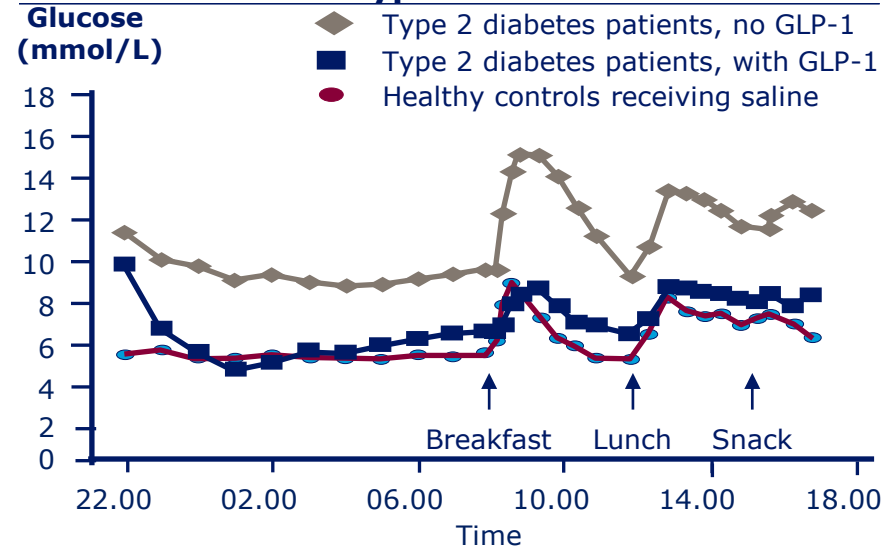
GLP-1 effect dependent on level of blood glucose – which reduces risk of hypoglycaemia compared to insulin

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

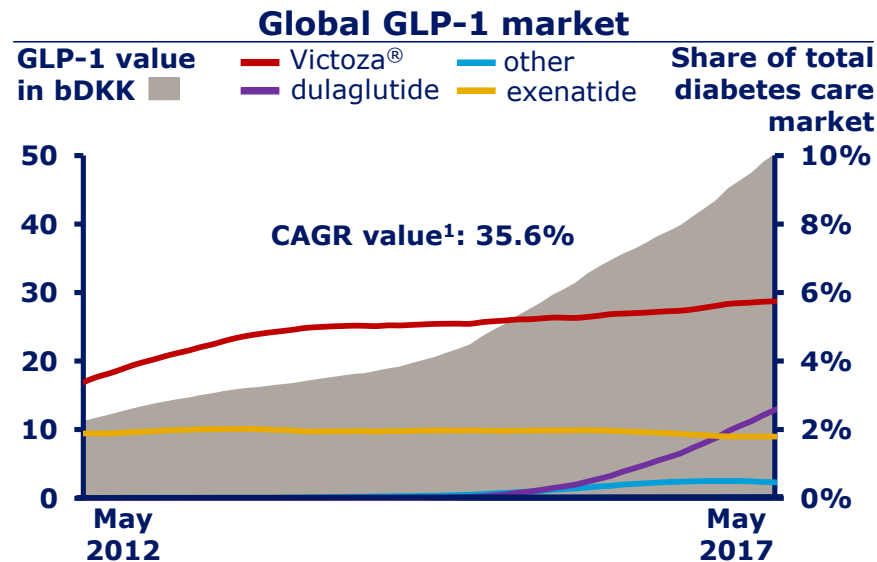


GLP-1 lowers blood glucose in patients with type 2 diabetes



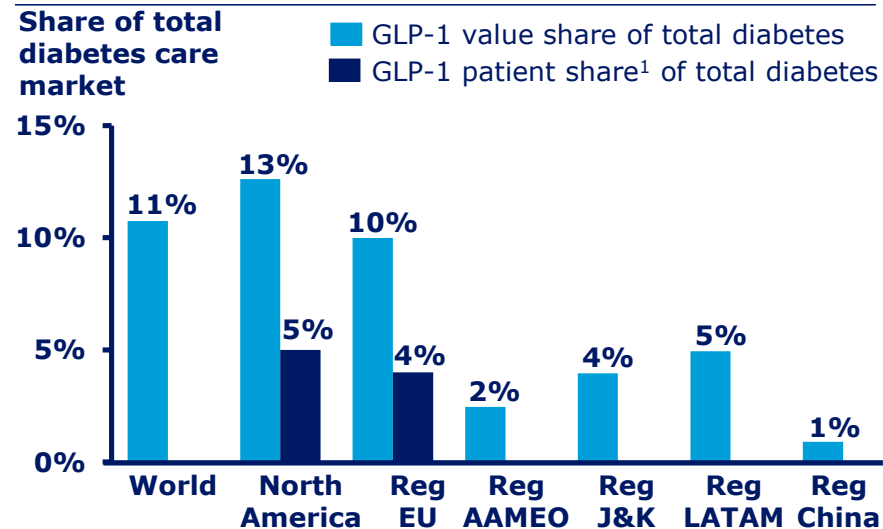
Source: Rachman et al. Diabetologia 1997;40:205-11

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



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

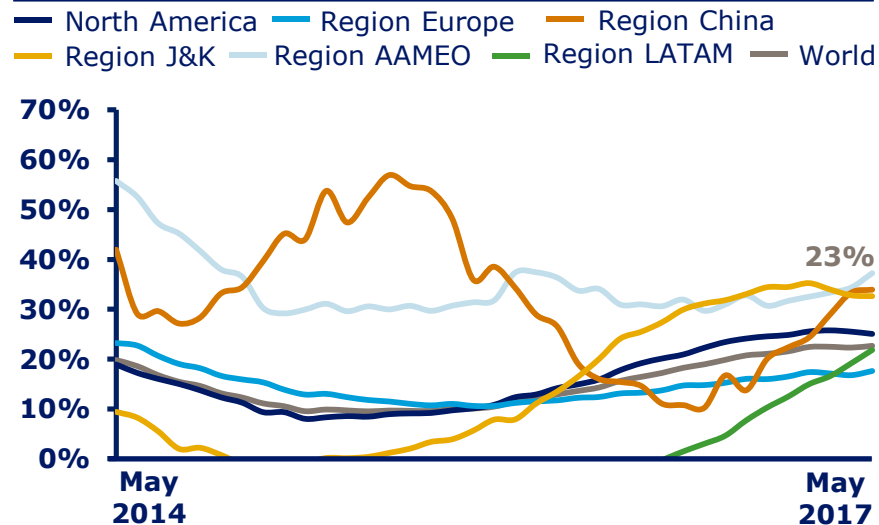
GLP-1 value and patient share of the total diabetes market



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

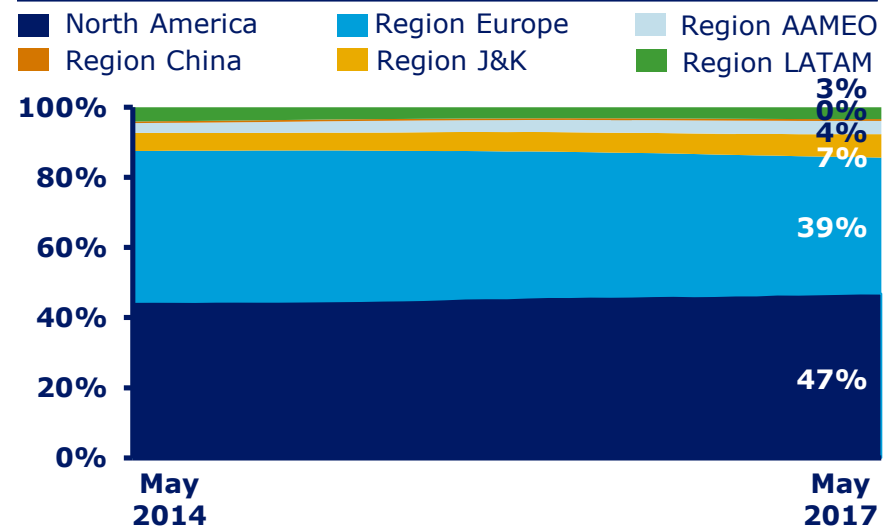
Strong GLP-1 volume growth in all regions

Regional GLP-1 volume growth



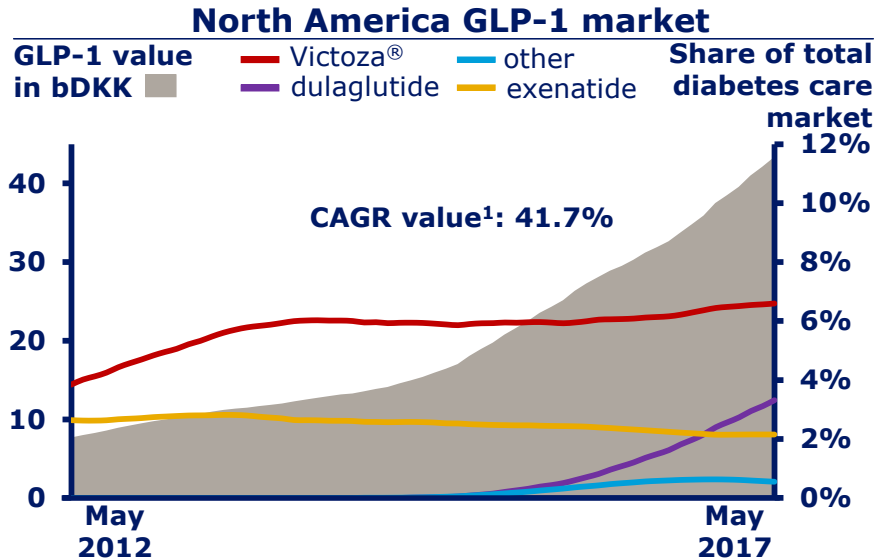
J&K: Japan & Korea; AAMEO: Africa, Asia, the Middle East and Oceania; LATAM: Latin America
 Note: Data is sensitive to changes in IMS data collection and reporting methodology
 Source: IMS Monthly MAT May, 2017 volume figures

Regional GLP-1 volume market split



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

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



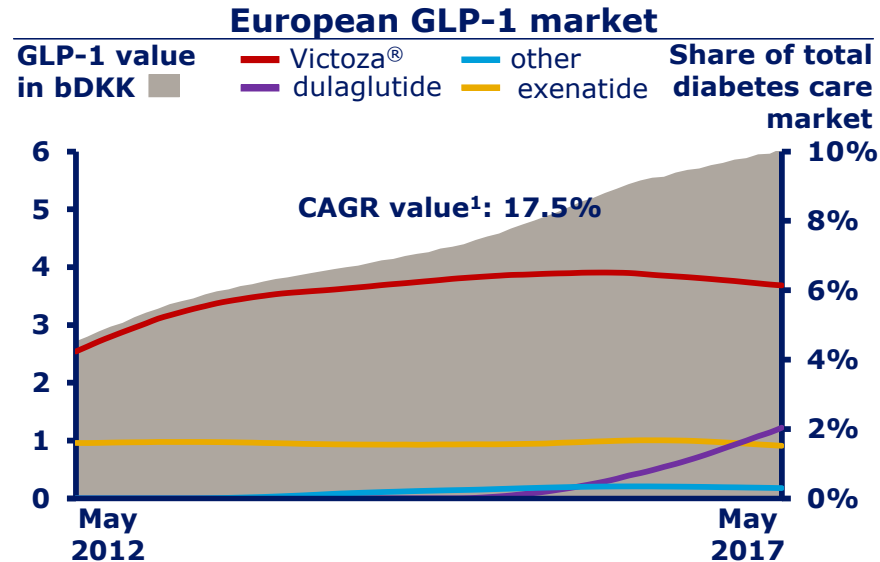
¹ CAGR for 5-year period
Source: IMS Monthly MAT May, 2017 value figures (DKK)

Key observations for Victoza® in the US market

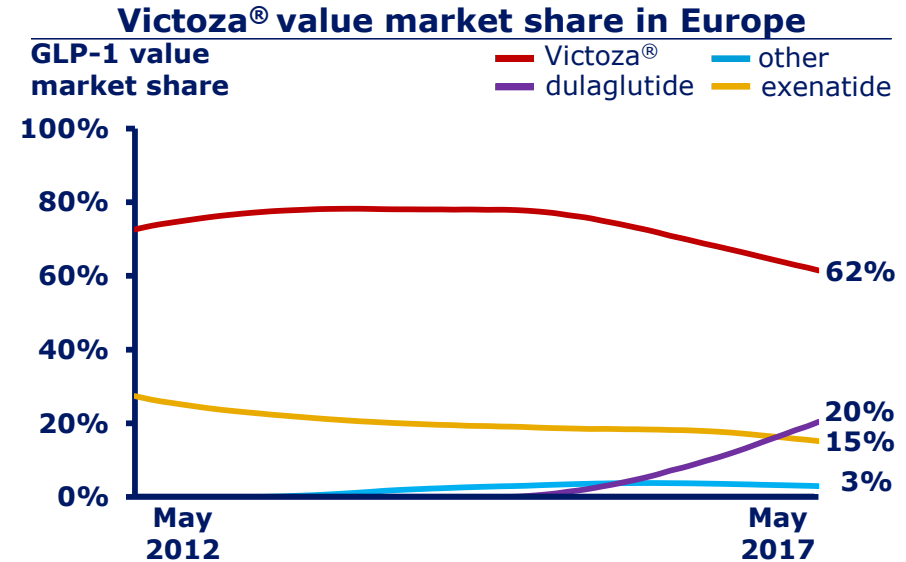
- Victoza® value market share within the GLP-1 segment is 52%
- Around 81% of commercial and around 92% of Medicare Part D lives are covered without restrictions
- Around 63% of new patients are new to treatment or from OAD-only regimens
- Close to 71% of prescriptions are for the higher dose 1.8 mg (3-pen pack)¹

¹ QIMS monthly, MAT May 2017

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



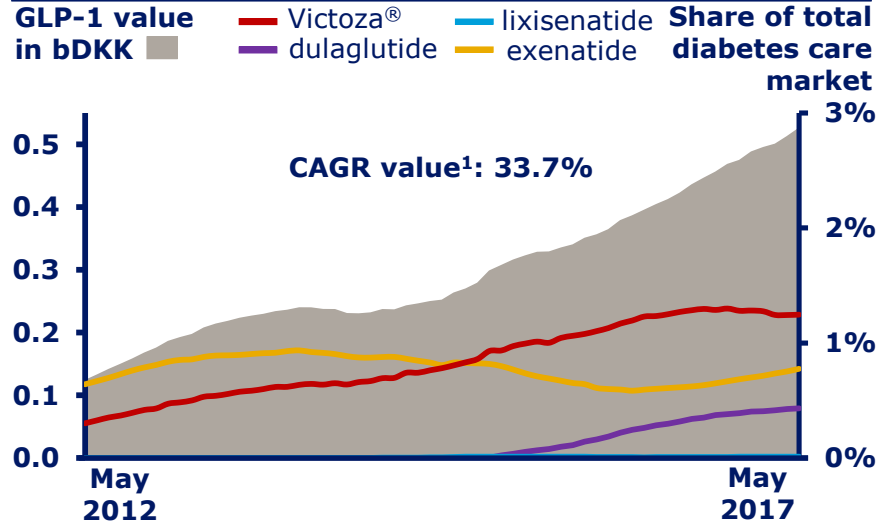
¹ CAGR for 5-year period
Source: IMS Monthly MAT May, 2017 value figures (DKK)



Source: IMS Monthly MAT May, 2017 value figures (DKK)

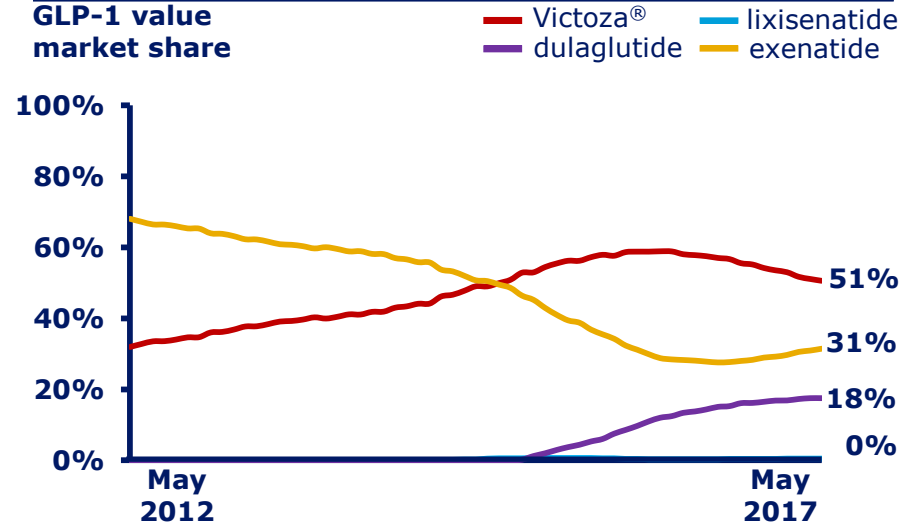
The GLP-1 segment accounts for more than 2% of the total diabetes care market in Region AAMEO

Region AAMEO GLP-1 market



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

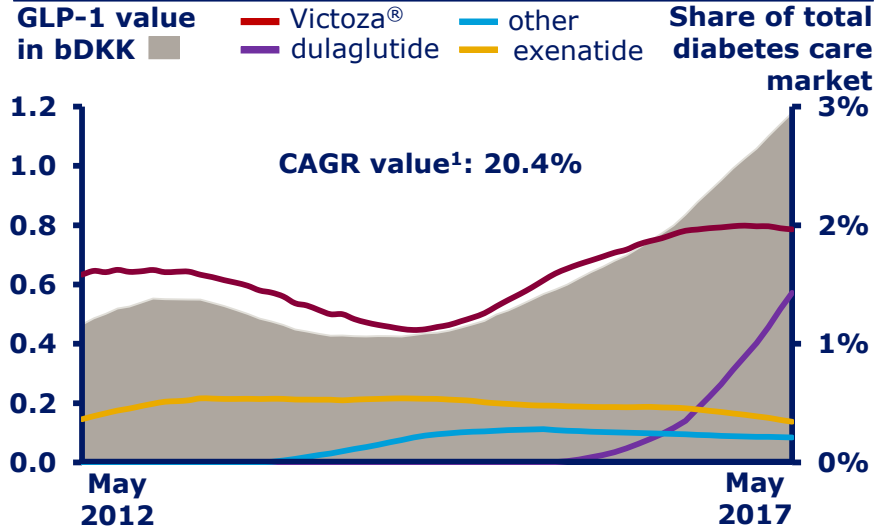
Victoza® value market share in Region AAMEO



Source: IMS Monthly MAT May, 2017 value figures (DKK)

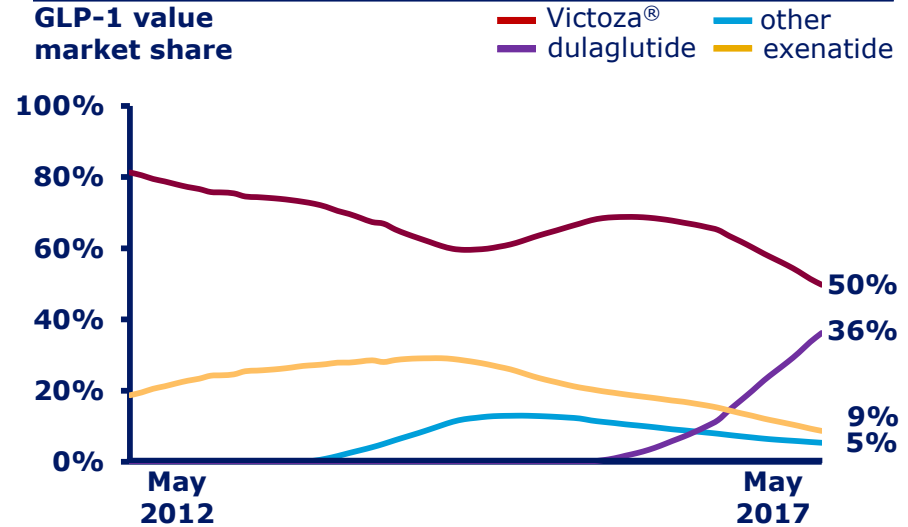
The GLP-1 segment accounts for around 4% of the total diabetes care market in Japan & Korea

Japan & Korea GLP-1 market



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

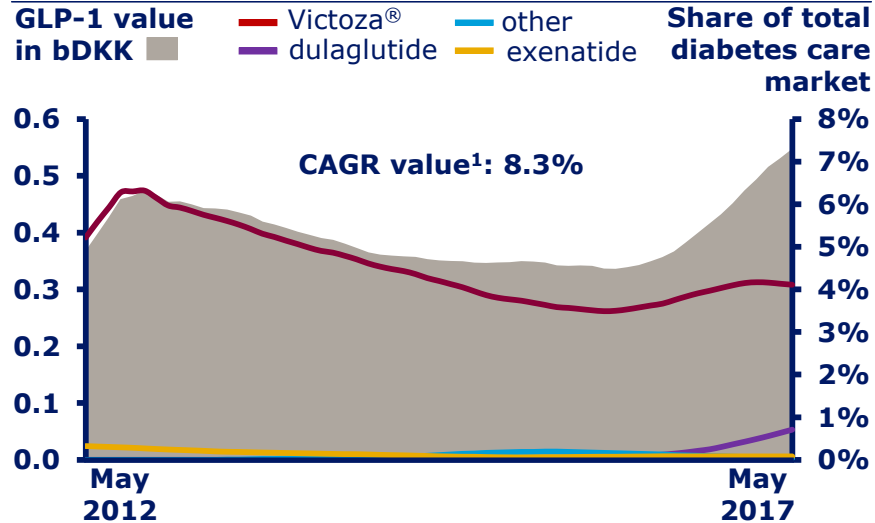
Victoza® value market share in Japan & Korea



Source: IMS Monthly MAT May, 2017 value figures (DKK)

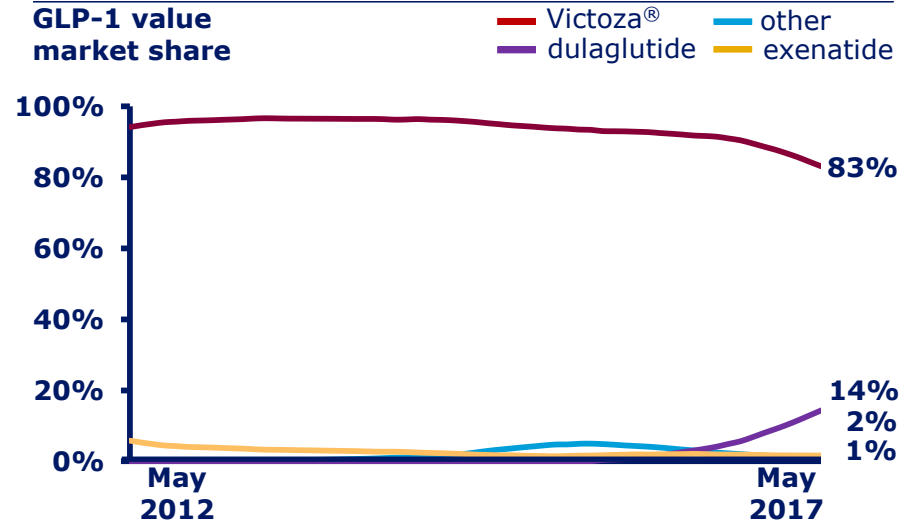
Strong market leadership of Victoza® in Latin America

Latin America GLP-1 market



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

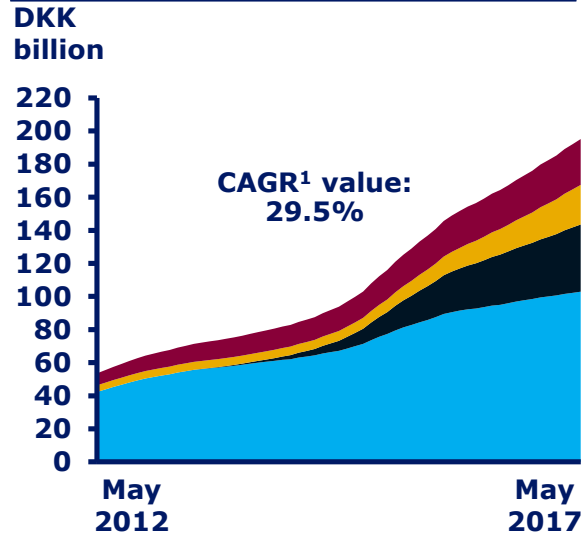
Victoza® value market share in Latin America



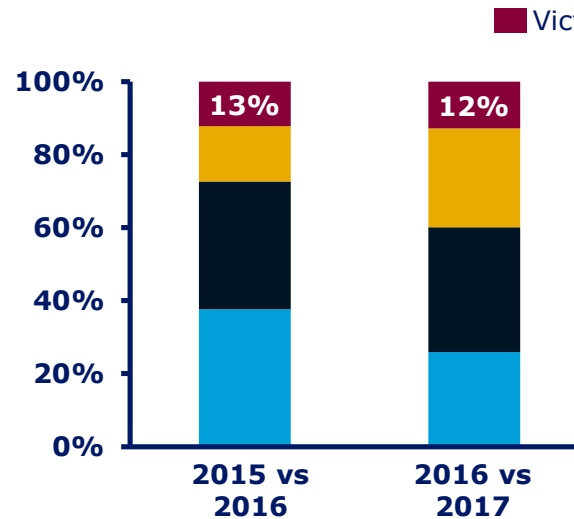
Source: IMS Monthly MAT May, 2017 value figures (DKK)

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

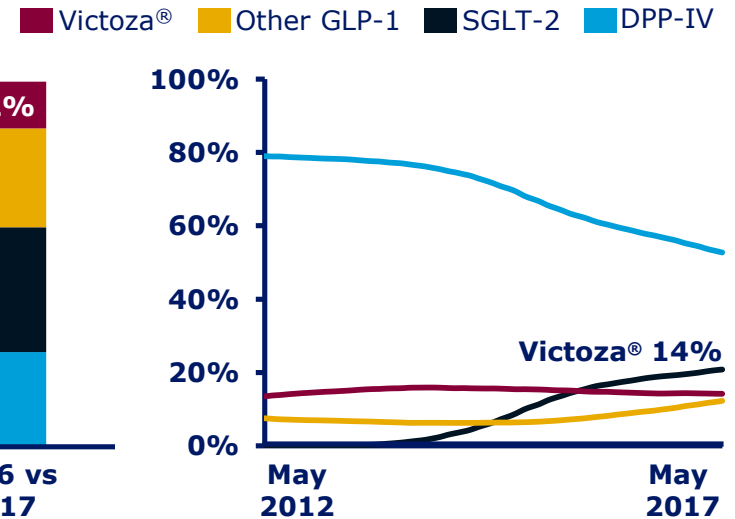
Segment value



Share of segment value growth



Segment value market shares



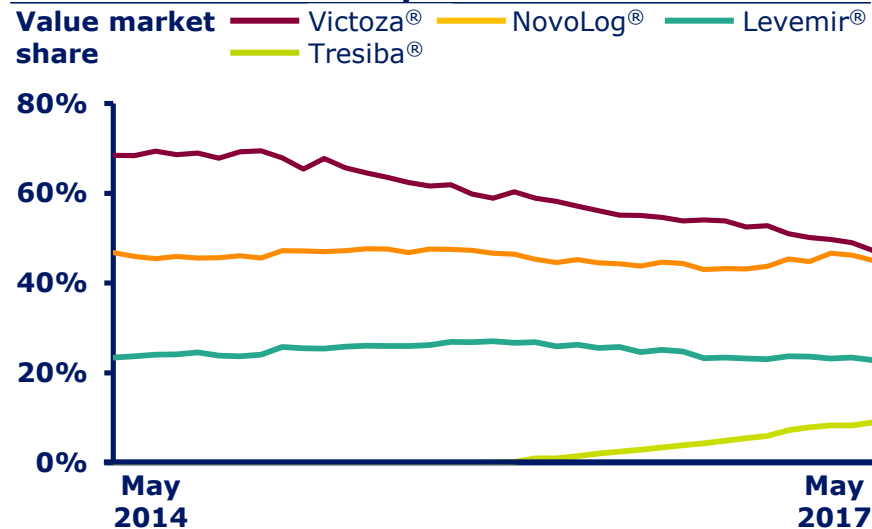
¹ CAGR for 5-year period

Note: Segment only includes DPP-IV, GLP-1 & SGLT-2. Other oral anti-diabetic agents and insulin excluded

Source: IMS MAT May 2017 value figures

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

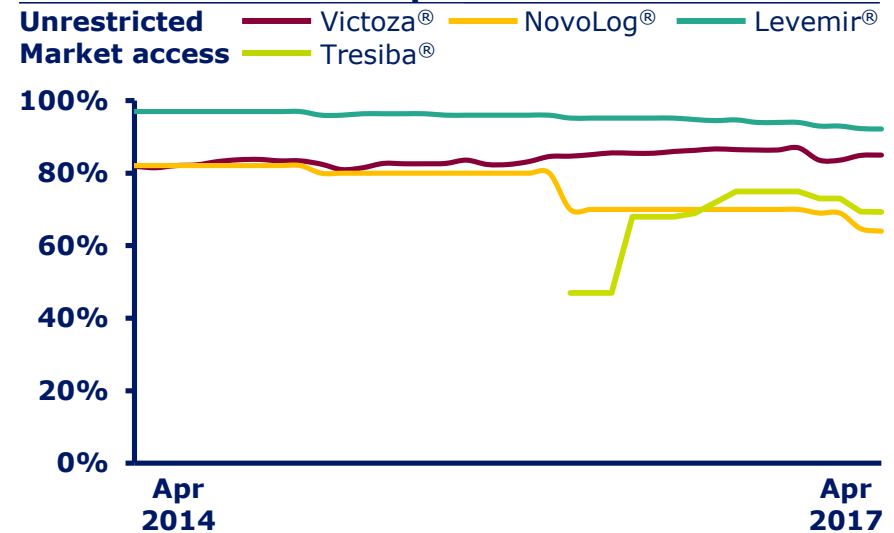
Value market shares of key Novo Nordisk products in the US



Source: IMS NSP May 2017;

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

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

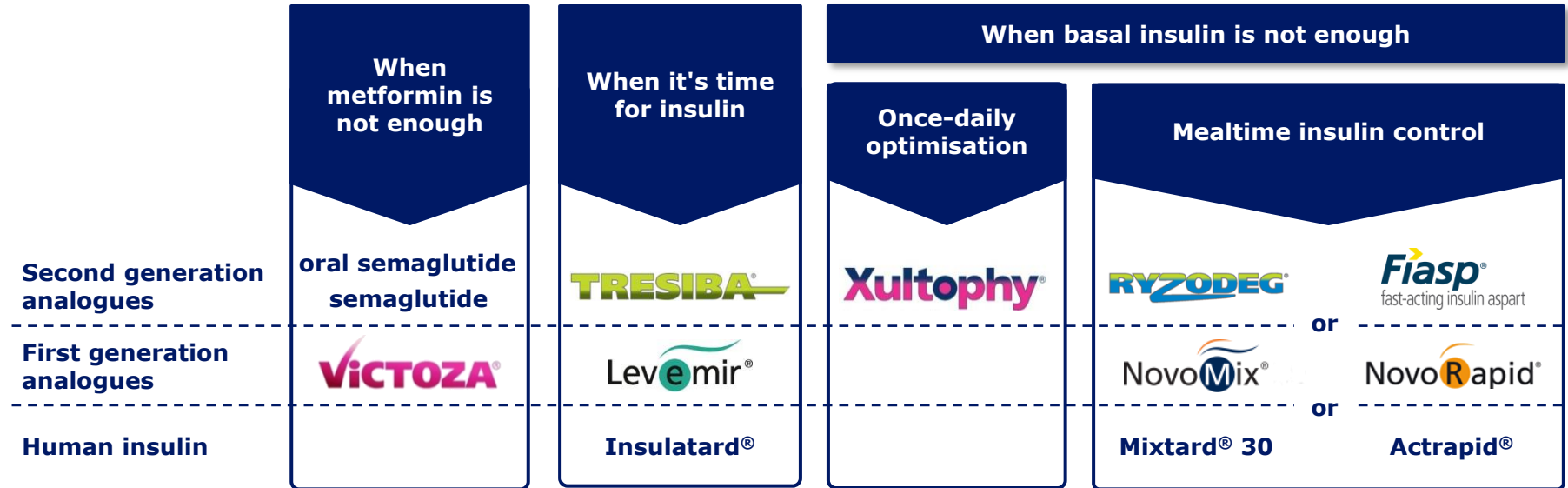


Source: FingerTip Formulary bridge/ April 2017 Nomenclature and Xponent PlanTrak using week-ending 5/5/2017; only considers bridged volume; excludes cash and mail order data;

Note: Unrestricted access excludes prior authorisation, step edits and other restrictions Levemir® access based on FlexTouch® Pen; NovoLog® access based on FlexPen®; only considers bridged volume; Tresiba® launched in January 2016

Novo Nordisk current and future product portfolio covers the type 2 diabetes treatment flow¹

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

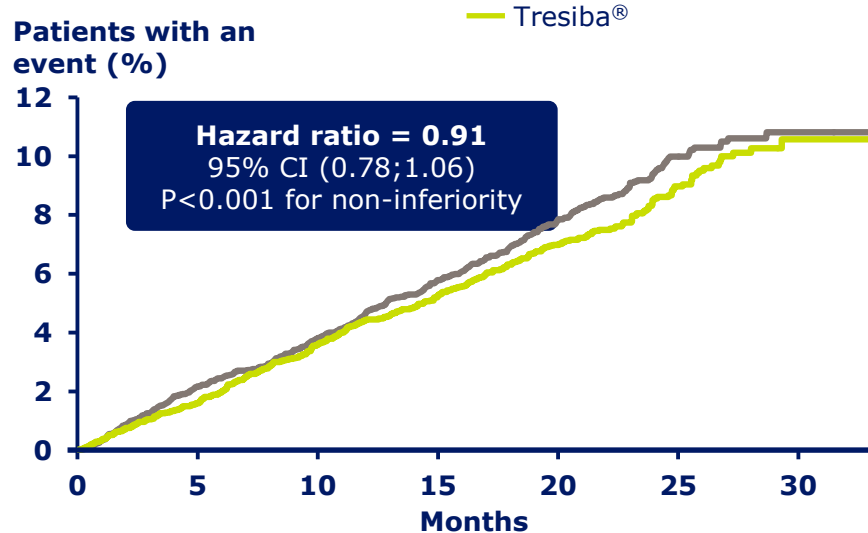
R&D pipeline: Diabetes, obesity and other areas

Product/project	Type	Indication	Status (phase)				
			1	2	3	Filed	Appr.
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					
Tri-agonist 1706 (NN9423)	Phase 1 trial initiated	Obesity					
Semaglutide NASH (NN9931)	Long-acting once-daily GLP-1 analogue	NASH					

¹ Approved in EU on 10 Jan 2017

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

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



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

Key results and next step

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

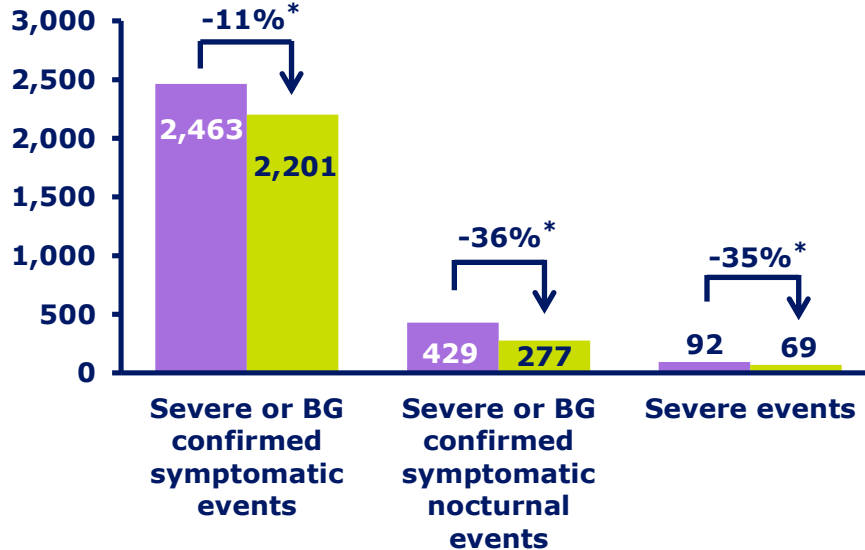
Next steps

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

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

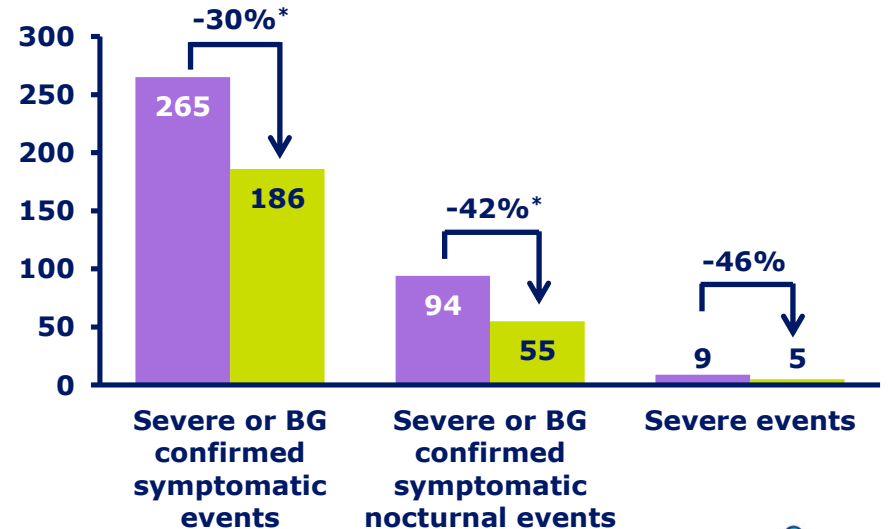
SWITCH 1 – type 1 diabetes

Hypoglycaemic events per 100 PYE



SWITCH 2 – type 2 diabetes

Hypoglycaemic events per 100 PYE



Fast-acting insulin aspart approved in the EU and Canada, regulatory decision by FDA expected Q4 2017

Regulatory decisions and next steps



- Fiasp® (fast-acting insulin aspart) launched in Germany, UK, Canada and Finland
- Next step: Launch roll-out in more European countries



- Class II resubmission of the NDA for fast-acting insulin aspart in the US on 29 March 2017
- Next step: Regulatory decision by the FDA expected in Q3 2017

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

Pharmacokinetics

- 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

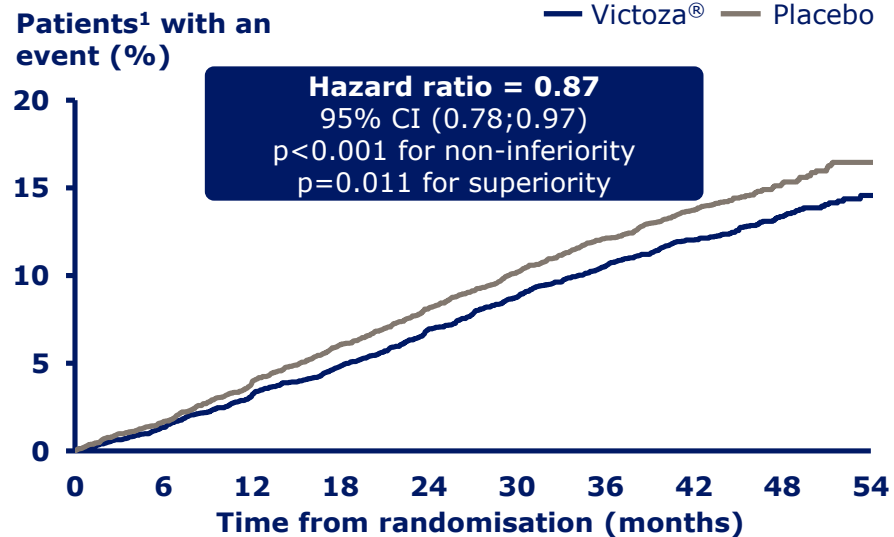
changing
diabetes®

PPG: Postprandial glucose; SC: Subcutaneous



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} ≥ 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

changing
diabetes[®]

Key results

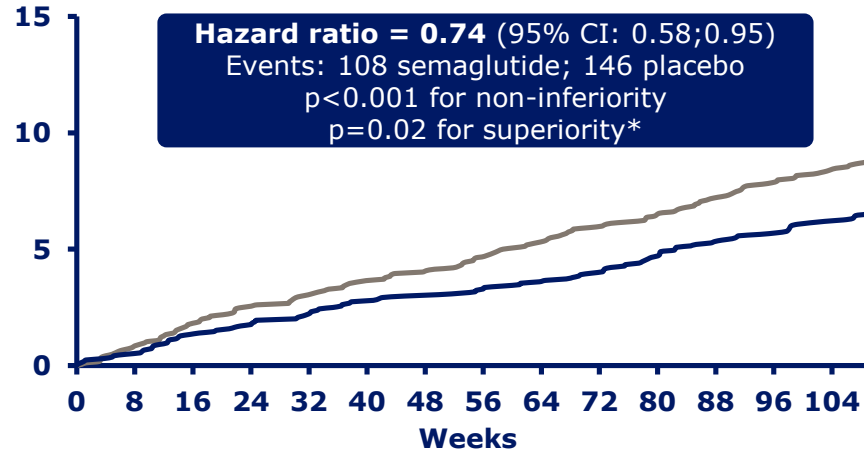
- Superiority of Victoza[®] vs placebo was confirmed for time to first MACE in people with type 2 diabetes at high CV risk
- **Victoza[®] reduced the MACE risk by 13%**, driven by 22% reduction in CV mortality, 12% reduction in non-fatal myocardial infarctions and 11% reduction in non-fatal stroke, compared 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[®]

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

Patients with an event (%)

— semaglutide — 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

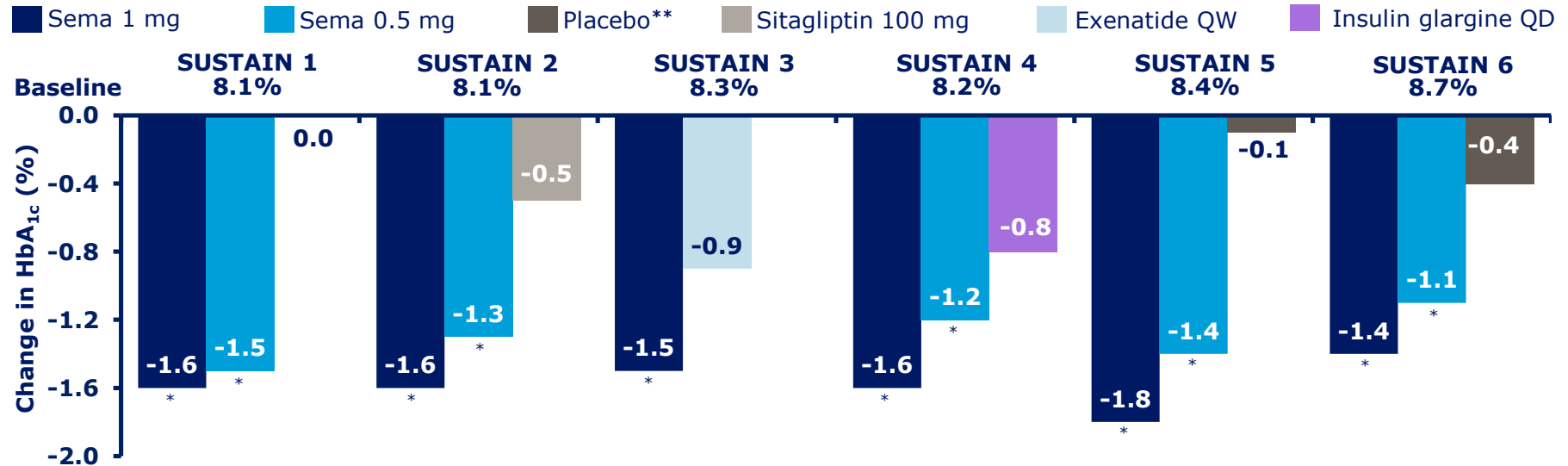
Key results and next step

- 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 has submitted an NDA for semaglutide to regulatory authorities and expect regulatory feedback in Q4 2017

* P-value <0.001
 NDA: New drug application

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

Comparison of HbA_{1c} lowering effect in phase 3a SUSTAIN trials



* $p < 0.001$; QD: once-daily; QW: once-weekly; sema: semaglutide

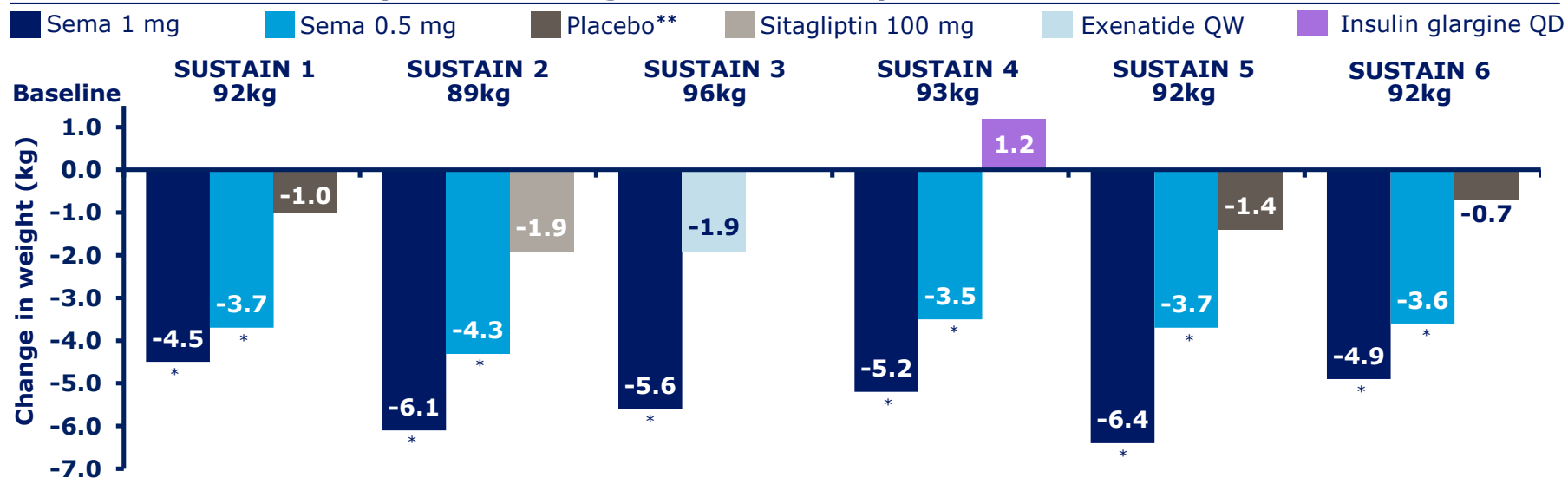
**SUSTAIN 1: semaglutide once-weekly versus placebo in drug-naïve subjects with type 2 diabetes; SUSTAIN 5: semaglutide once-weekly versus placebo in subjects with type 2 diabetes added on to insulin; SUSTAIN 6: semaglutide once-weekly versus placebo, added-on to their standard-of-care treatment

Source: SUSTAIN 1-5: Ahmann, et al, et al. Presented at the 77th Annual Scientific Sessions of the American Diabetes Association, San Diego, USA. Poster 1080-P; SUSTAIN 6 HbA_{1c}: Marso SP, et al. N Engl J Med 2016;375:1834-44



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

Comparison of weight reductions in phase 3a SUSTAIN trials



* $p < 0.001$; QD: once-daily; QW: once-weekly; sema: semaglutide

**SUSTAIN 1: semaglutide once-weekly versus placebo in drug-naïve subjects with type 2 diabetes; SUSTAIN 5: semaglutide once-weekly versus placebo in subjects with type 2 diabetes added on to insulin; SUSTAIN 6: semaglutide once-weekly versus placebo, added-on to their standard-of-care treatment

Source: SUSTAIN 1-5: Lingvay, et al. Presented at the 77th Annual Scientific Sessions of the American Diabetes Association, San Diego, USA. Oral presentation 243-OR; SUSTAIN 6: Vilsbøll, et al. Presented at the 77th Annual Scientific Sessions of the American Diabetes Association, San Diego, USA. Poster 1125-P



Phase 2 trial with semaglutide for NASH initiated in November 2016

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



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

Phase 2 trial purpose and endpoints

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

Competitive Tresiba® label across all three triad markets

Tresiba® label characteristics in triad markets

	US	Europe	Japan
Profile	<ul style="list-style-type: none"> • Half-life of 25 hours and duration of action of at least 42 hours • Day to day variability of 20% 	<ul style="list-style-type: none"> • Duration of action beyond 42 hours • Four times lower day-to-day variability vs insulin glargine 	<ul style="list-style-type: none"> • Duration of action up to 26 hours in Japanese patients • Four times lower day-to-day variability vs insulin glargine
Efficacy	<ul style="list-style-type: none"> • Non-inferior HbA_{1c} reduction • Numerically greater FPG reduction • Numerically lower insulin dose¹ 	<ul style="list-style-type: none"> • Non-inferior HbA_{1c} reduction • Numerically greater FPG reduction 	<ul style="list-style-type: none"> • Non-inferior HbA_{1c} reduction • Numerically greater FPG reduction
Safety	<ul style="list-style-type: none"> • Overall safety consistent with insulin • Hypoglycaemia rates for Tresiba®, but not comparator 	<ul style="list-style-type: none"> • Overall safety consistent with insulin • Lower rate of overall and nocturnal hypoglycaemia 	<ul style="list-style-type: none"> • Overall safety consistent with insulin • Lower rate of nocturnal hypoglycaemia in Asian subjects
Convenience	<ul style="list-style-type: none"> • Injection any time of day • Up to 80 and 160 units per injection 	<ul style="list-style-type: none"> • Adjusting injection time when needed • Up to 80 and 160 units per injection 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> Xultophy® is indicated for the treatment of adults with type 2 diabetes in combination with oral glucose-lowering agents
Profile	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> HbA_{1c} 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 	<ul style="list-style-type: none"> On average HbA_{1c} reduction of 1.9% from baseline to end of trial confirmed to be superior against all comparators¹ On average 2.7 kg weight loss from baseline in patients inadequately controlled on basal insulin
Convenience	<ul style="list-style-type: none"> Once-daily administration at same time each day with or without food The pen delivers doses from 10 to 50 units with each injection 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Lower rates of confirmed hypoglycaemia than with insulin degludec in patients on metformin +/- pioglitazone Fewer experienced gastrointestinal side effects than patients treated with liraglutide

Xultophy[®] has documented strong efficacy across the treatment cascade

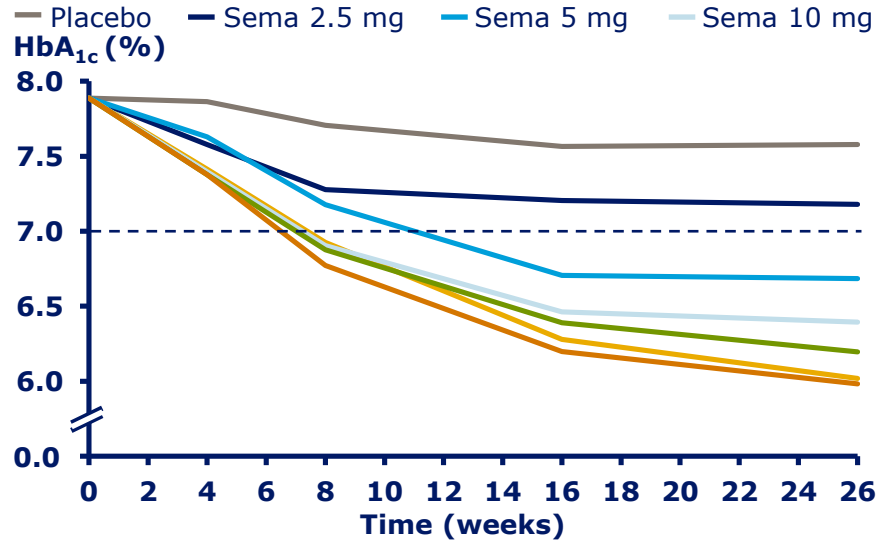
Xultophy[®] key clinical results

	DUAL I Add-on to metformin ± Pio n = 833	DUAL II Add-on to metformin ± basal insulin n = 199	DUAL III Switch from GLP-1 n = 292	DUAL IV Add-on to SU ± metformin n = 289	DUAL V Switch from insulin glargine n = 557	DUAL VI¹ Once vs. twice weekly titration N = 420	DUAL VII IDegLira versus basal-bolus n = 506
Mean trial start HbA _{1c} (%)	8.3	8.7	7.8	7.9	8.4	8.1	8.2
Mean trial end HbA _{1c} (%)	6.4	6.9	6.4	6.4	6.6	6.0	6.7
HbA _{1c} change (%)	-1.9	-1.9	-1.3	-1.45	-1.8	-2.0	-1.5
% to target < 7% (%)	80.6	60.3	75.3	79.2	71.6	89.5	66.0
% to target < 6.5% (%)	69.7	45.2	63.0	64.0	55.4	85.0	49.6
Confirmed hypo (Episodes per 100 PYE)	180.2	153.4	282	351.7	343.3	N/A**	N/A***
Weight change (kg)	-0.5	-2.7	+2.0	+0.5	-1.4	-2.0	-0.9

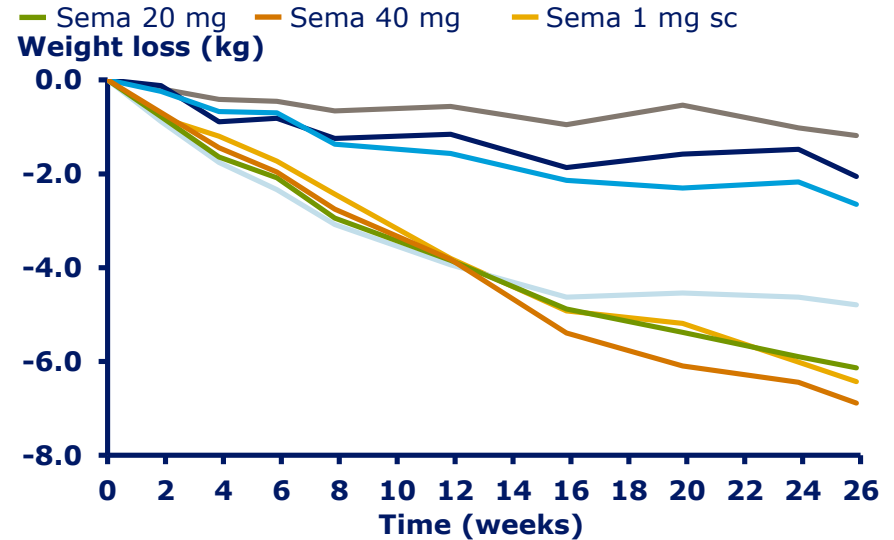
¹ DUAL VI: comparison of IDegLira once weekly vs. twice weekly titration, numbers in table are for IDegLira twice weekly, as this is the titration algorithm which has been applied in all the other DUAL trials.

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

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

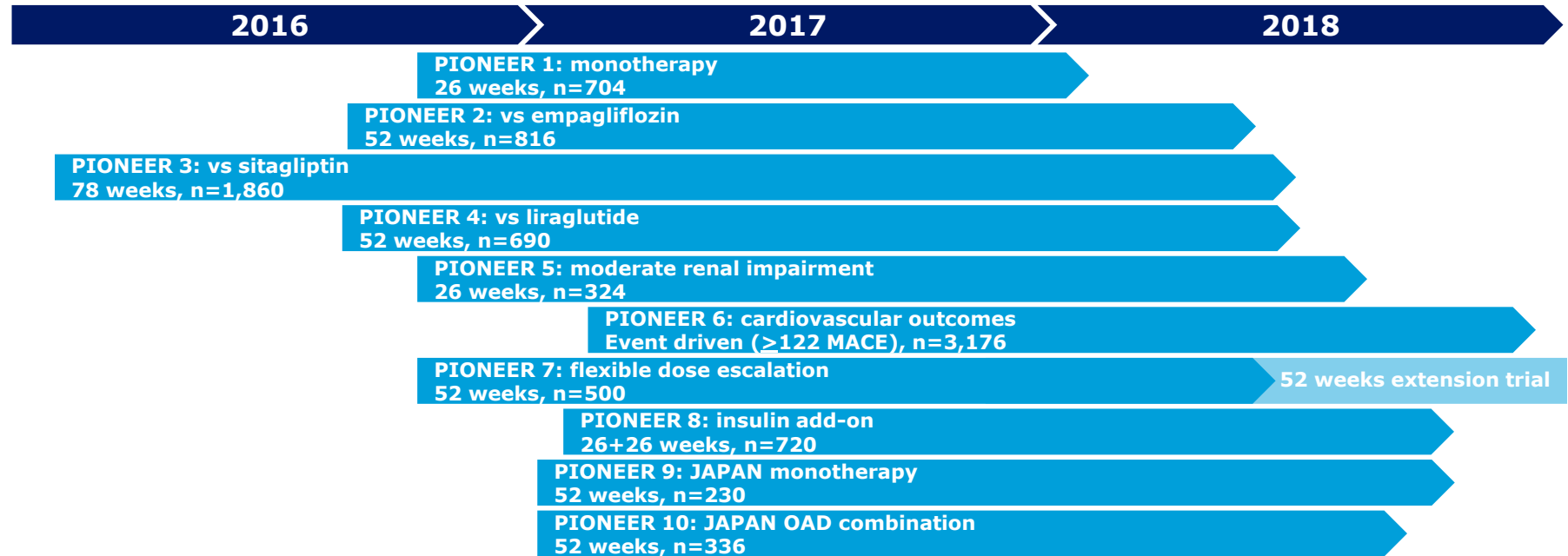


Weight loss from a mean base line of 92 kg



Inclusion criteria: Type 2 diabetes; $7.0\% \leq \text{HbA}_{1c} \leq 9.5\%$; treatment with diet and exercise with or without metformin; sc: subcutaneous; sema: semaglutide

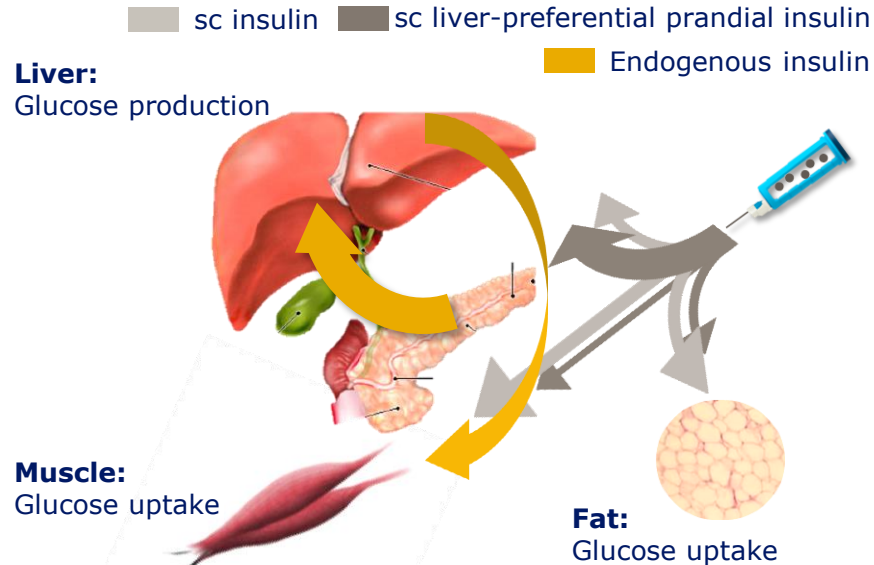
PIONEER trials for oral semaglutide



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

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

The liver is important for insulin action



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

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 individuals¹
- >50% of endogenous insulin secretion is cleared by the liver
- Insulinisation of peripheral tissues with current insulin analogues is higher than for endogenous insulin

Potential benefits

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

Next steps

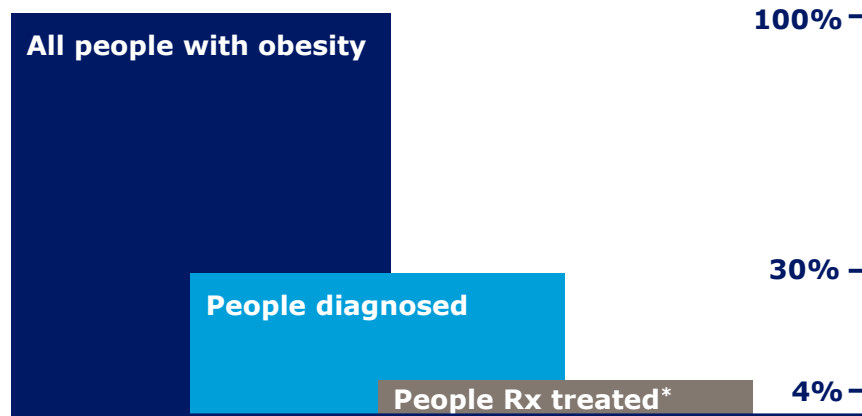
- Results for phase 1 trial with liver-preferential mealtime insulin (NN1406) expected in Q4 2017

PPG: post prandial glucose

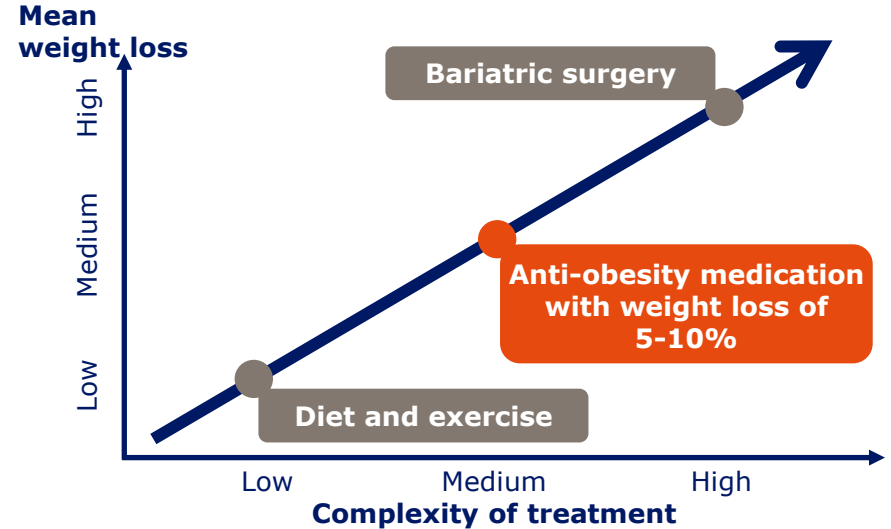
¹ Woerle HJ et al. *Am J Physiol Endocrinol Metab* 2006;290:E67-E77

Significant unmet need in obesity management

Insufficient treatment options



Significant gaps in obesity treatment

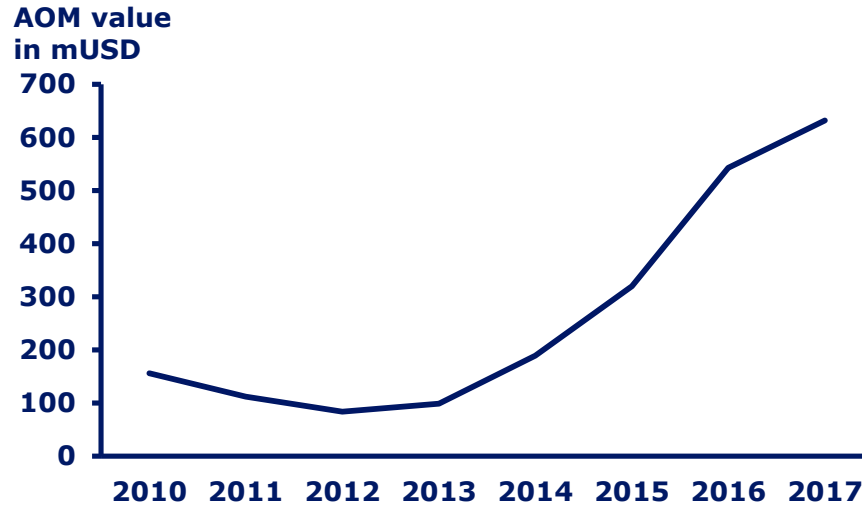


Source: Diagnosis rate, Practice Fusion March 2014 & Treatment rate, *Understanding the Treatment Dynamics of the Obesity Market*, IMS Database (NPA), August 2014

* Rx=prescription, ie treated with anti-obesity medication (AOM)

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

Total anti-obesity market moving-annual market value



Source: IMS NSP Monthly, May 2017

The US obesity burden

- Cost of obesity to health care systems of USD 147 billion annually with continued growth¹
- Around 35% of the US adult population (over 20 years) have obesity (BMI>30)²
- Only around 30% of all obesity cases in the US were diagnosed in 2009³
- In 2010, only 3 million people in the US or around 3% of the adult population with obesity were treated with anti-obesity medication⁴

¹ Finkelstein et al. Health Affairs 28, no. 5 (2009): w822-831

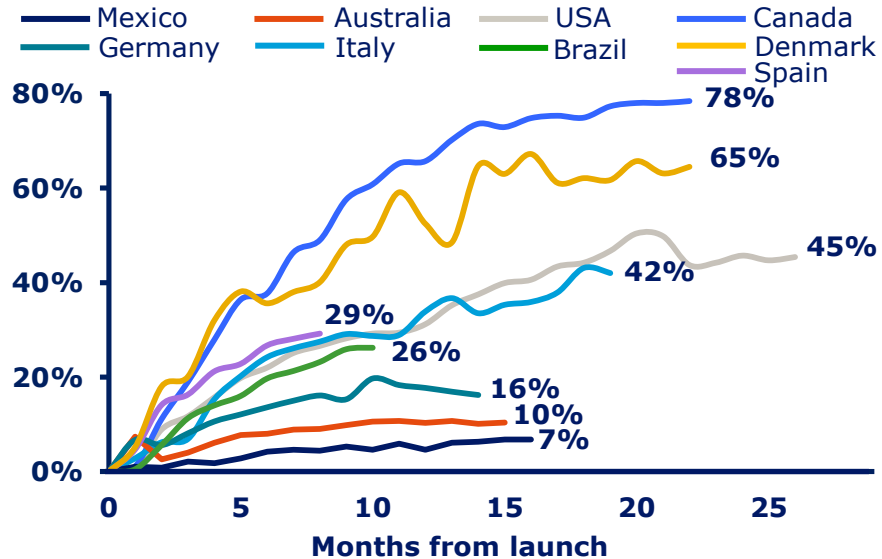
² Flegal, KM. JAMA. 2012;307(5): Doi:10.1001/jama.2012.39

³ Ma et al. Obesity (Silver Spring) 2009;17:1077-85

⁴ Obesity. Decision resources, Inc. December 2010:38

Continued global roll-out of Saxenda® and an evolving obesity portfolio

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



Source: IMS, May 2017

Note: AOM market size varies significantly between countries

The global obesity potential

Saxenda® and obesity pipeline

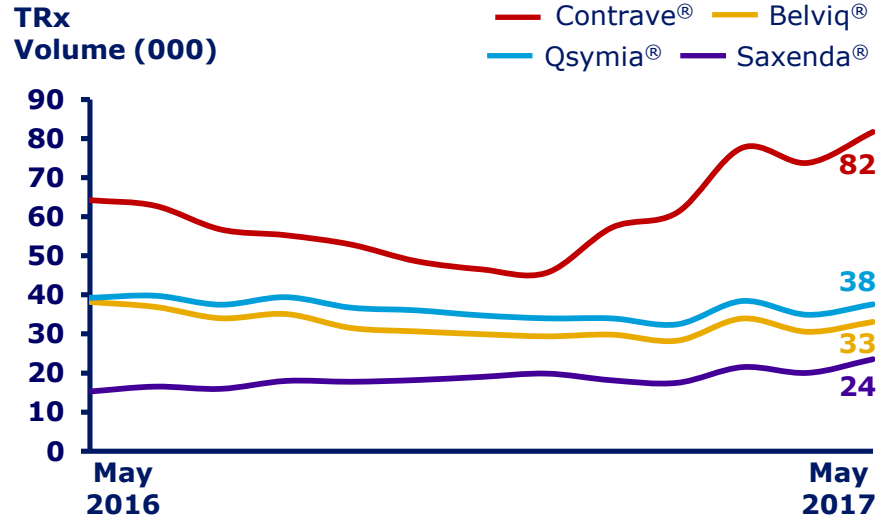
- Successful uptake of Saxenda® and launch in 19 markets supports Novo Nordisk's long term commitment to obesity treatment
- EU label update of Saxenda® based on the LEADER trial
- Novo Nordisk obesity pipeline includes semaglutide for obesity in phase 2 and six projects in phase 1

Key global initiatives

- Educate HCPs in obesity management
- Drive patient engagement via Saxenda® care
- Drive recognition of obesity as a chronic disease
- Improve market access to obesity care

Steady prescription uptake for Saxenda® in the US

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

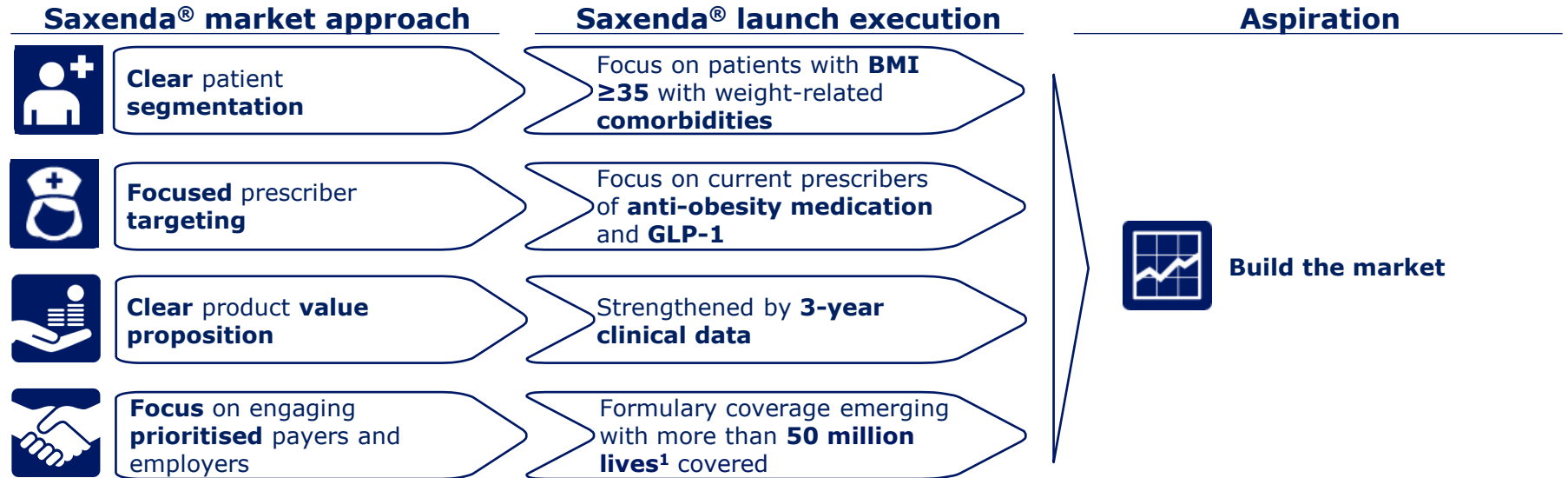


Source: IMS NPA TRx, monthly, May 2017

Key observations

- Saxenda® has been launched in 19 markets including the US, Canada, Australia, Russia, UAE, Israel, Germany, Denmark, Sweden, Switzerland, Italy, Spain, Belgium, Luxembourg, UK, Brazil, Chile, Portugal and Mexico
- Saxenda is the leader in value market share at ~49% among the branded AOMs in the US
- While competitors promotional efforts have been erratic, Novo Nordisk remains confident in the long-term obesity market growth and the evolving Novo Nordisk obesity portfolio

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



BMI: body mass index

¹ Potential lives covered, based on employer opt-ins

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 comorbidity¹

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 weight²
- **Average weight loss of 9.2%** in completers at one year²

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 hypoglycaemia³, 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

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

Key features of compounds in phase 1 development for obesity

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

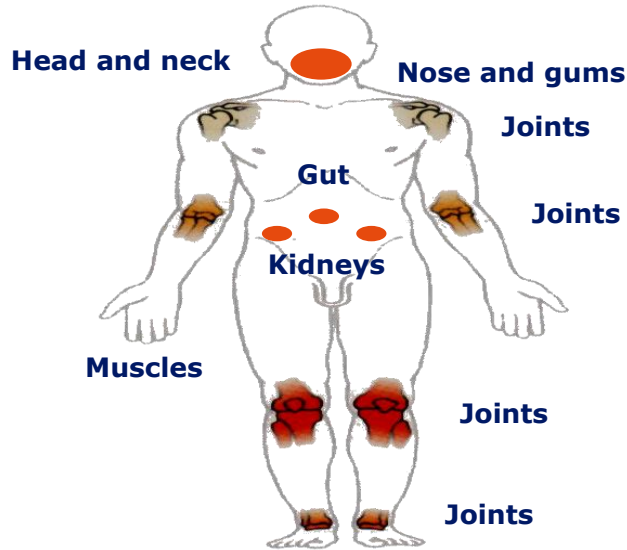
SC: Subcutaneous

Biopharmaceuticals



Haemophilia: Location of bleedings and the consequences

Locations

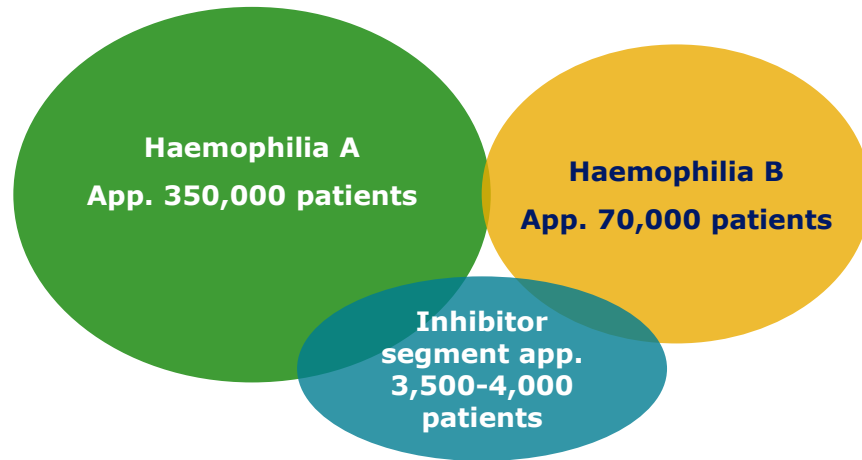


Consequences of bleedings

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

Haemophilia is a rare disease with severe unmet medical needs

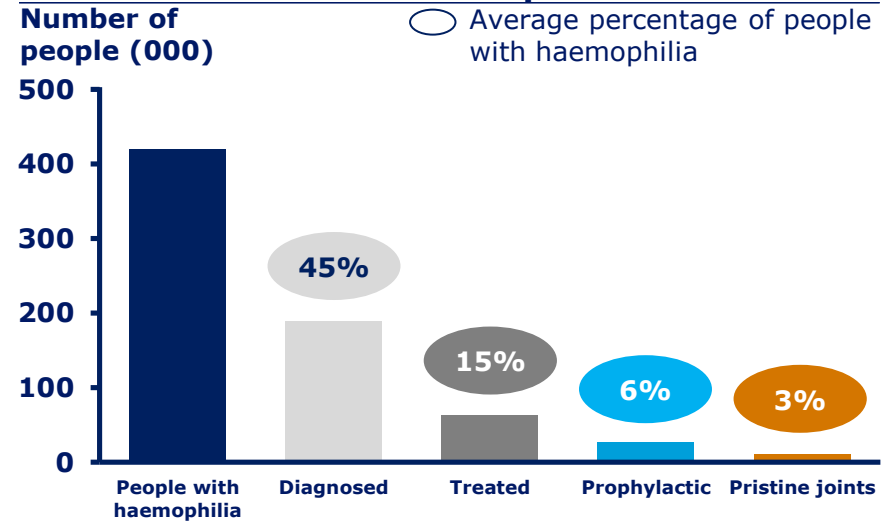
Number of people with haemophilia A and B and haemophilia with inhibitors



Note: The inhibitor segment represents people with haemophilia and high titre inhibitors to their normal replacement treatment

Source: Estimates based on prevalence data in literature (Stonebraker JS et al. Haemophilia. 2010; 16: 20-32), World Federation of Haemophilia – Annual Global Survey 2012, UDC database in the US

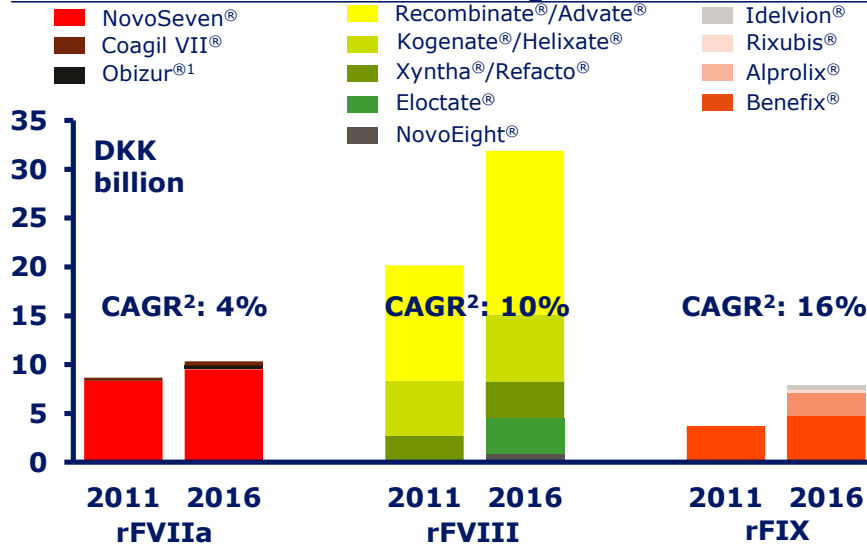
Low diagnosis and treatment rates within haemophilia



Source: World Federation of Haemophilia – Annual Global Survey 2016

Global haemophilia market is growing by high-single digit

Sales of recombinant coagulation factors



¹ Obizur® only indicated for acquired haemophilia

² CAGR for 5-year period

Strategic positioning of Novo Nordisk's haemophilia portfolio

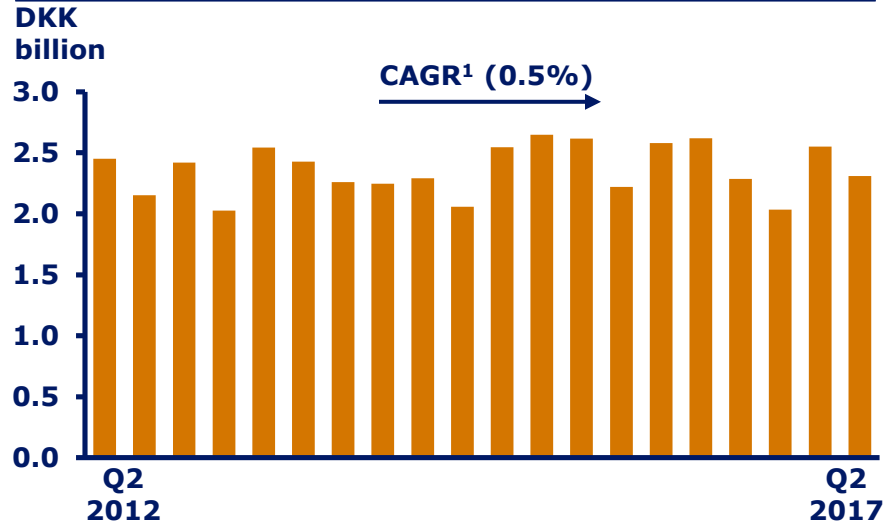
Novo Nordisk compound	Status	Strategic position
NovoSeven®	Launched	Maintain market leadership
NovoEight®	Launched	Establish presence in a competitive market place
N8-GP	Phase 3 ³	Contribute to market conversion
Refixia®/REBINYN®	Approved ⁴	Contribute to new treatment paradigm
NovoThirteen®	Launched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

³ Submission of N8-GP expected 2018 pending expansion of production capacity

⁴ Refixia® is the brand name for N9-GP in the EU, and REBINYN® in the US.

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

NovoSeven® reported quarterly sales



¹ CAGR for 5-year period

Key NovoSeven® properties

- **Product characteristics:** powder and solvent for solution for intravenous injection, available in multiple doses, stable at room temperature
- **MixPro®** administration system launched in 2013
- **Indications:** treatment of spontaneous and surgical bleedings in:
 - Haemophilia A or B patients with inhibitors
 - Acquired haemophilia
 - Congenital FVII deficiency
 - Glanzmann's thrombasthenia²

² Only indicated in Europe and the US

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

Example from NovoEight® promotional campaign¹



¹ Picture is not intended for promotional purposes

NovoEight® properties and launch performance

Indications:

- Treatment and prophylaxis of bleeding in patients with congenital factor VIII deficiency for all age groups²

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 process⁴
- Portability: Room temperature stability with storage at 30 degrees celsius²

Launch status:

- NovoEight® is available in the US, EU, Japan
 - Commercial or technical launch in 27 countries

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

R&D pipeline: Haemophilia and growth disorders

Product/project	Type	Indication	Status (phase)				
			1	2	3	Filed	Appr.
N9-GP (NN7999)	GlycoPEGylated long-acting rFIX	Haemophilia B					
N8-GP (NN7088) ¹	GlycoPEGylated long-acting rFVIII	Haemophilia A					
Concizumab (NN7415) ²	Monoclonal anti-TFPI	Haemophilia A, B and with inhibitors					
Somapacitan (NN8640) ³	Once-weekly human growth hormone	Growth disorder					
Sc N8-GP (NN7170)	Sc GlycoPEGylated long-acting rFVIII	Haemophilia A					

¹ Submission of N8-GP expected 2018 pending expansion of production capacity

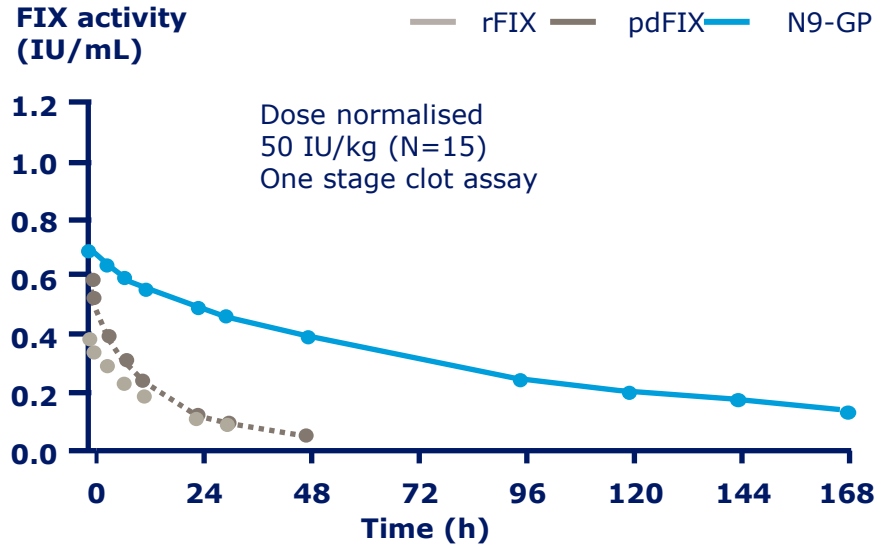
² Phase 1b trial completed

³ Phase 3 completed in Adult Growth Hormone Deficiency (AGHD)

Sc: Subcutaneous

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

N9-GP phase 1 pharmacokinetics



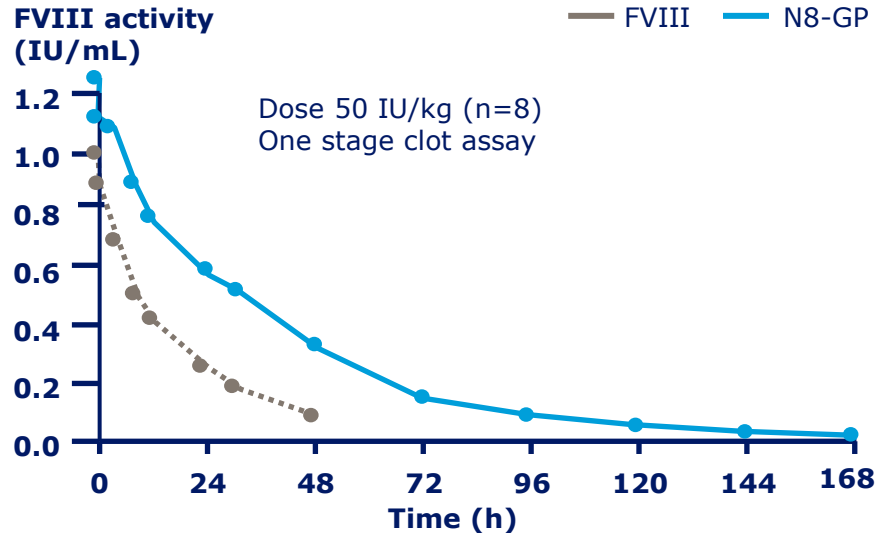
rFIX: Recombinant factor IX; pdFIX: plasma-derived factor IX
Source: Negrier et al. Blood. 2011;115:2693-2701

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 medium 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

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

N8-GP phase 1 pharmacokinetics



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

Pathfinder 2 headline results (phase 3)

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

Pathfinder 2 extension trial results

- 55 patients with ≤ 2 bleeds during 6 months in the main phase were randomised 2:1 to either once-weekly (75 IU/kg) or every fourth day (50 IU/kg) treatment for 180 days¹
- Patients in both treatment arms had a median ABR of 0

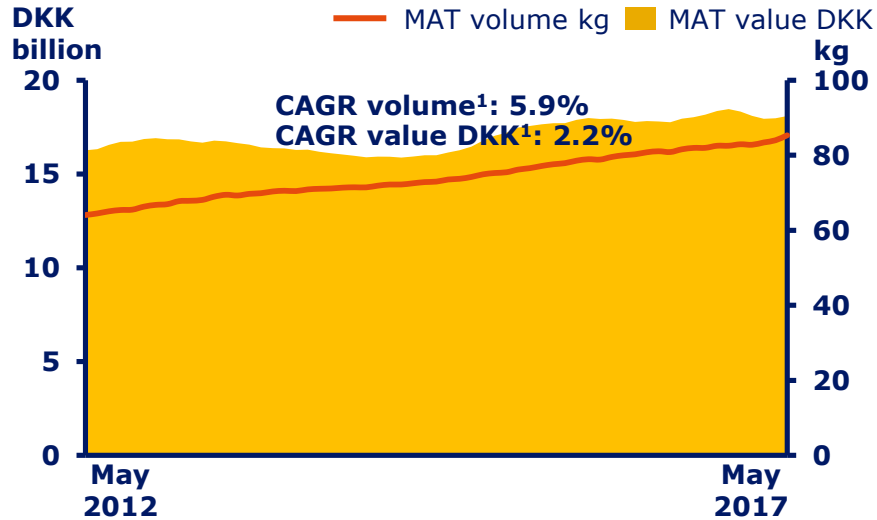
Next steps

- 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)

Novo Nordisk maintains leadership within human growth hormone market

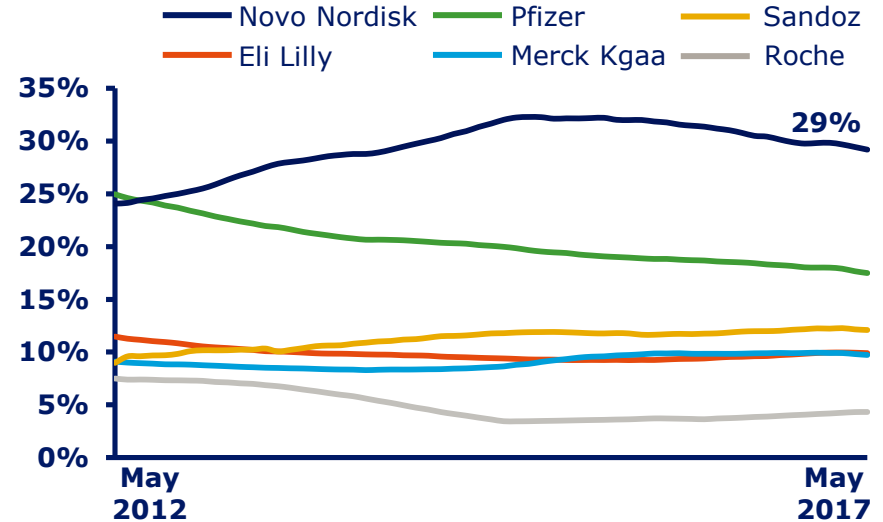
Development in global human growth hormone market



¹ CAGR for 5-year period

Source: IMS Monthly MAT May, 2017 volume figures and value (DKK) figures

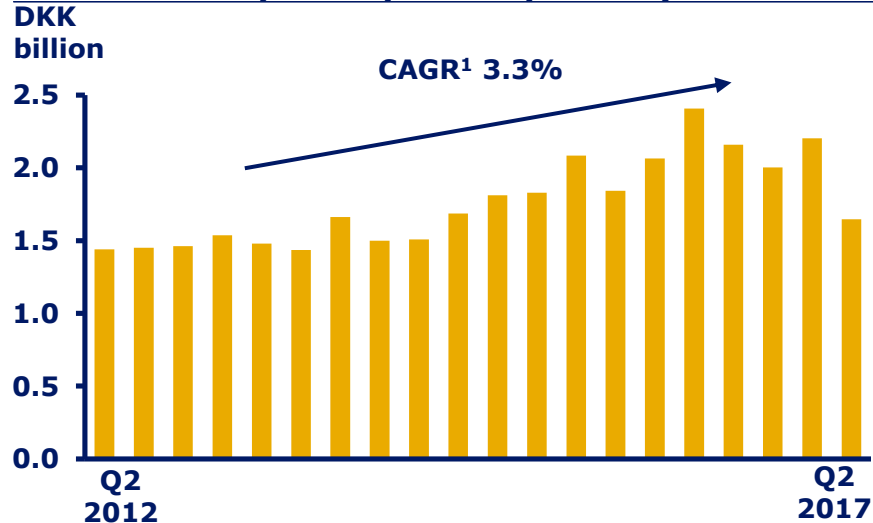
Human growth hormone volume market share



Source: IMS Monthly MAT May, 2017 volume figures

Solid Norditropin® sales growth

Norditropin® reported quarterly sales



¹ CAGR for 5-year period

Key Norditropin® properties

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

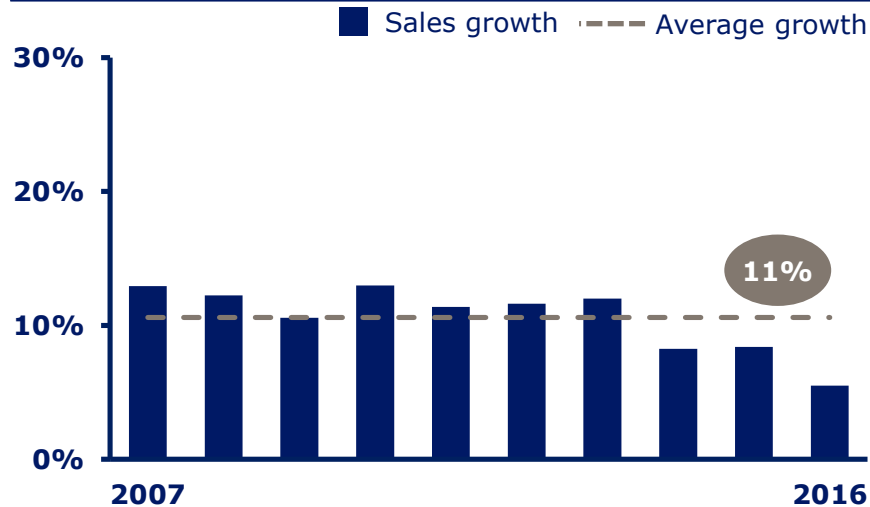
GHD: Growth Hormone Deficiency; AGHD: Adult growth hormone deficiency
SGA: Small for Gestational Age

Financials

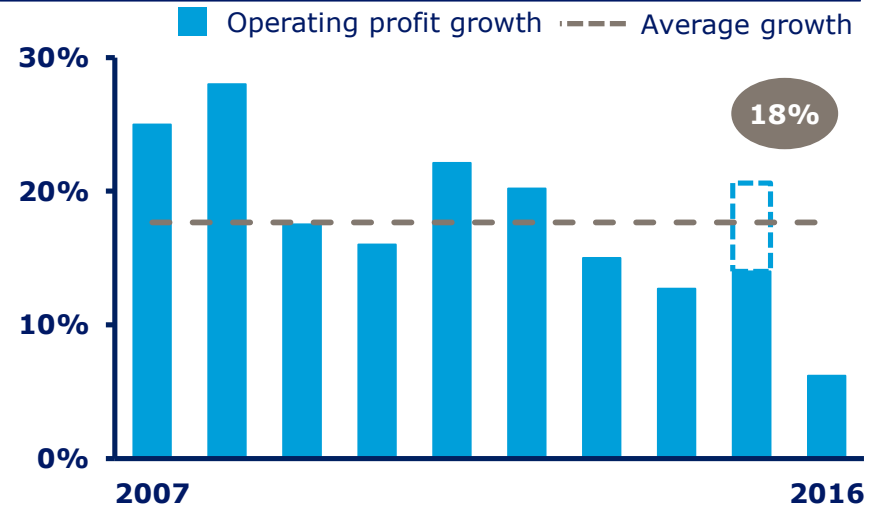


Sales have been growing by 11% on average throughout the last decade

Sales growth in local currencies
2007–2016



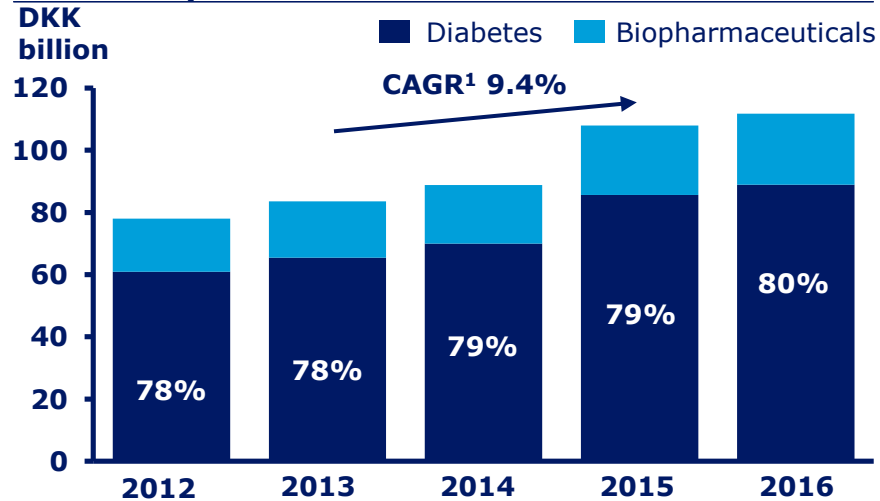
Operating profit growth in local currencies
2007–2016



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

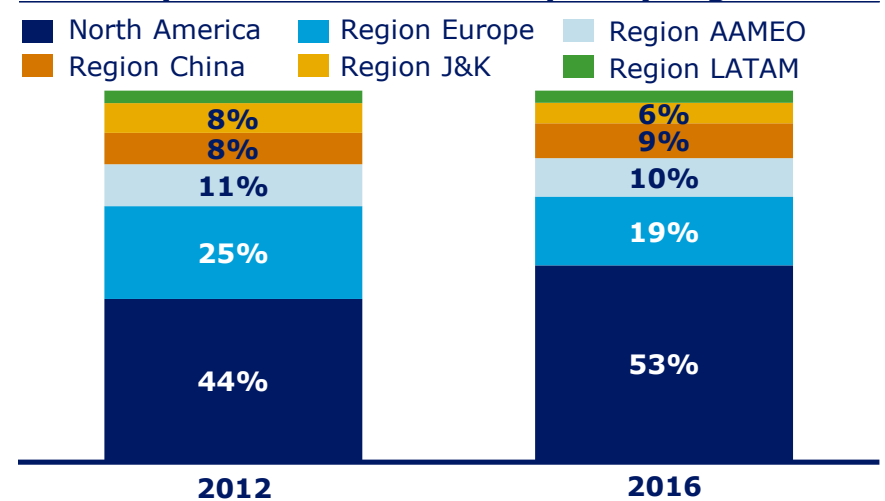
Solid sales growth driven by the US

Reported annual sales 2012-2016



¹ CAGR for 5-year period

Reported annual sales split by region



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

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

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



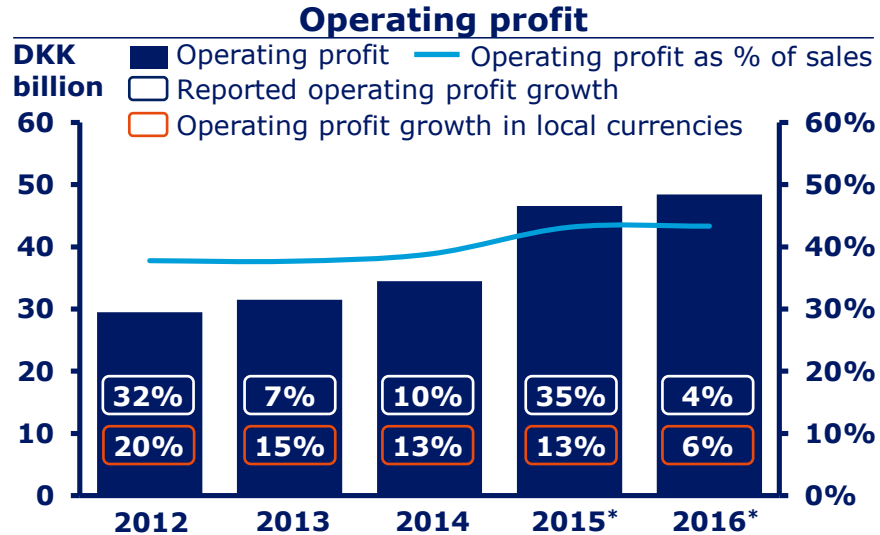
Sales of DKK 57.1 billion (+4%)

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

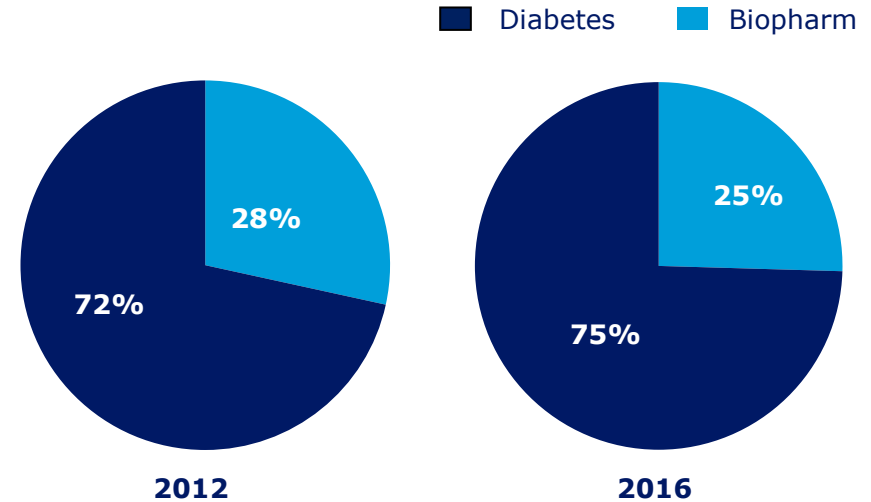
Reported currencies	Sales (mDKK)	Sales split
Tresiba®	3,689	6%
Levemir®	7,609	13%
NovoRapid®	10,403	18%
NovoMix®	5,369	9%
Victoza®	11,525	20%
Saxenda®	1,225	2%
Diabetes and obesity care¹	47,531	83%
NovoSeven®	4,705	8%
Norditropin®	3,341	6%
Biopharmaceuticals¹	9,559	17%
Total¹	57,090	100%

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

Solid operating profit growth driven by diabetes



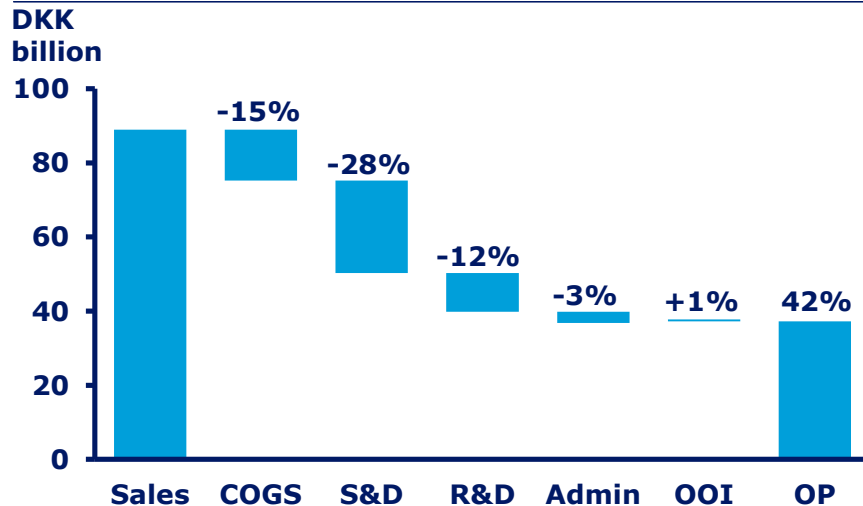
Operating profit therapy split



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

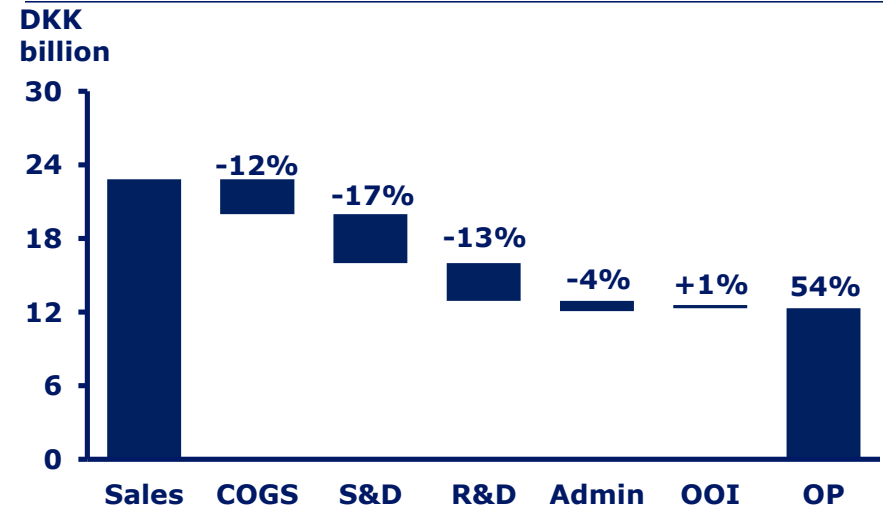
Higher profitability in the biopharmaceuticals segment driven by lower COGS and S&D

Diabetes & Obesity P&L – full year 2016



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

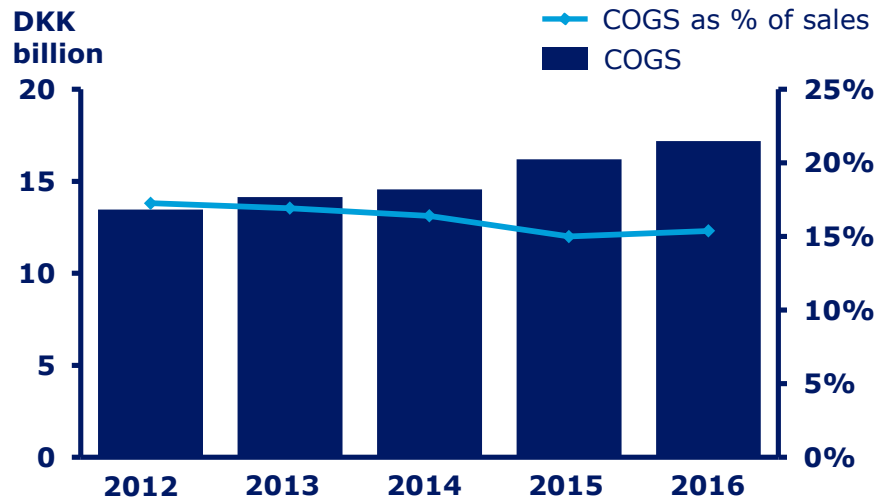
Biopharmaceuticals P&L – full year 2016



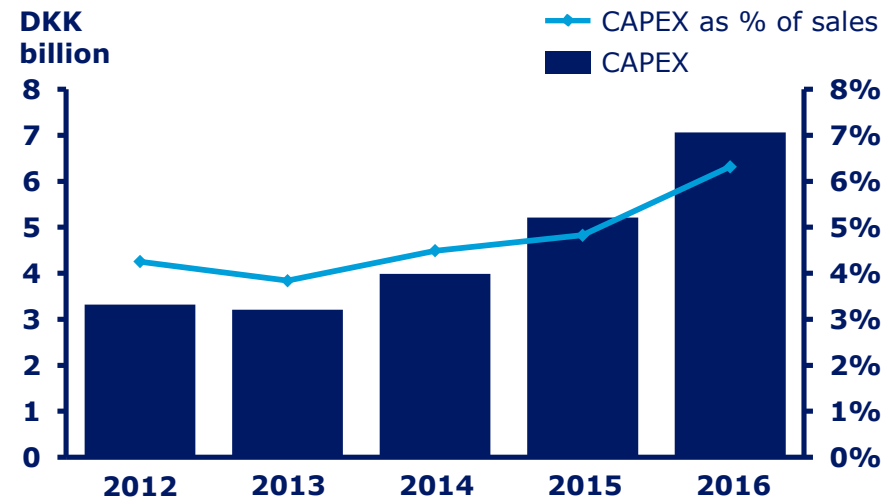
P&L: Profit and Loss; COGS: Cost of goods sold; OOI: Other operating income; OP: Operating profit
S&D: Sales and distribution cost; R&D: research and development cost; Admin: administrative cost

Stable COGS level as % of sales and increasing CAPEX level

Cost of Goods Sold (COGS)



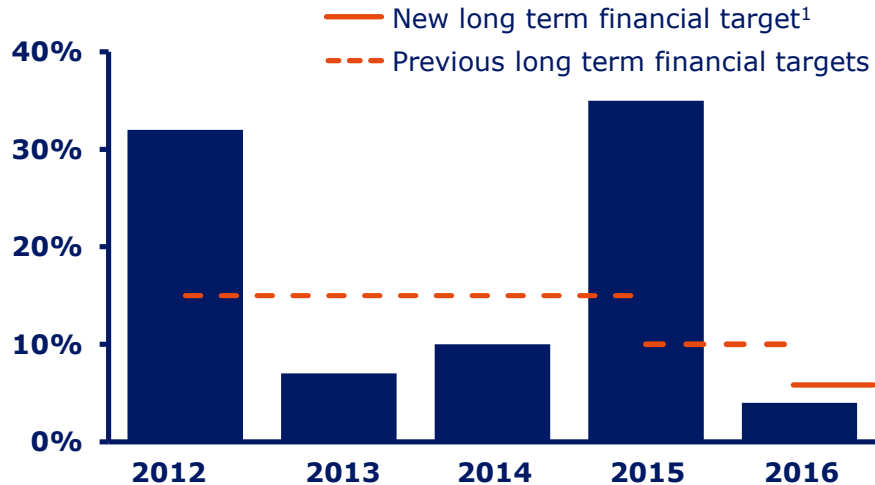
Capital Expenditure (CAPEX)



Long term financial targets:

Operating profit growth and operating margin

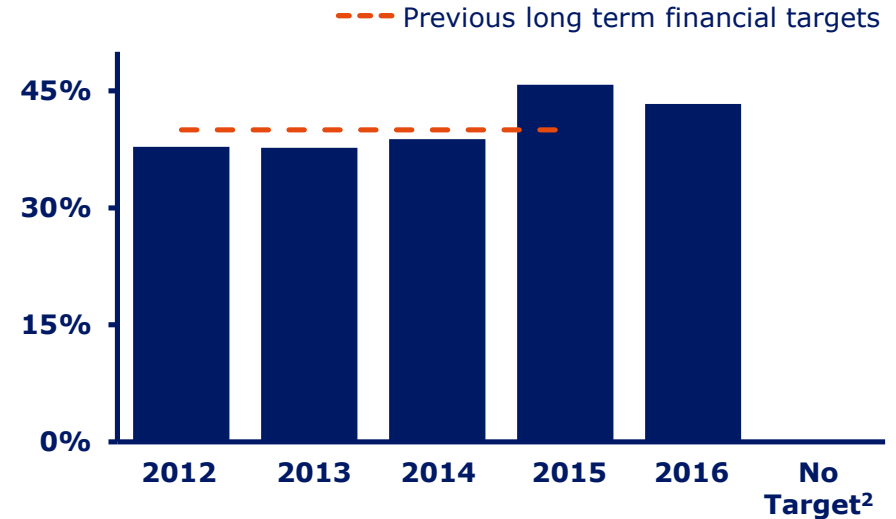
Operating profit growth



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

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

Operating margin

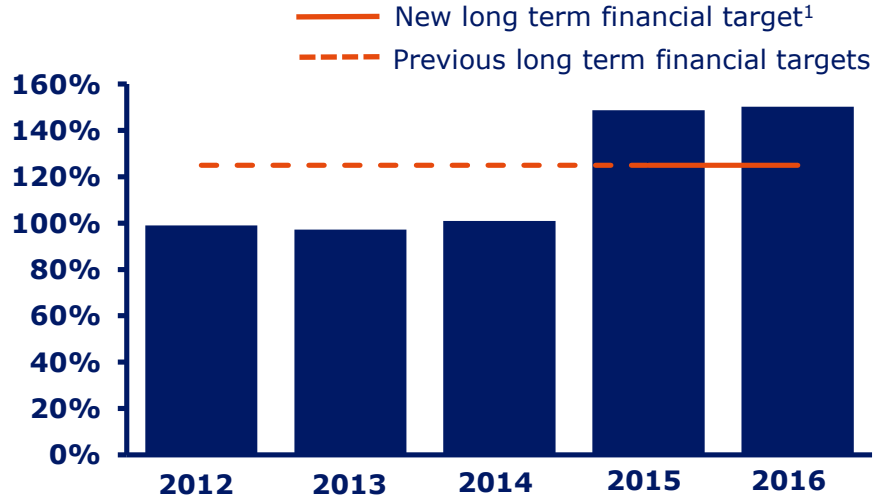


² The target for operating margin was discontinued in connection with the updated long-term financial targets in Q4 2015

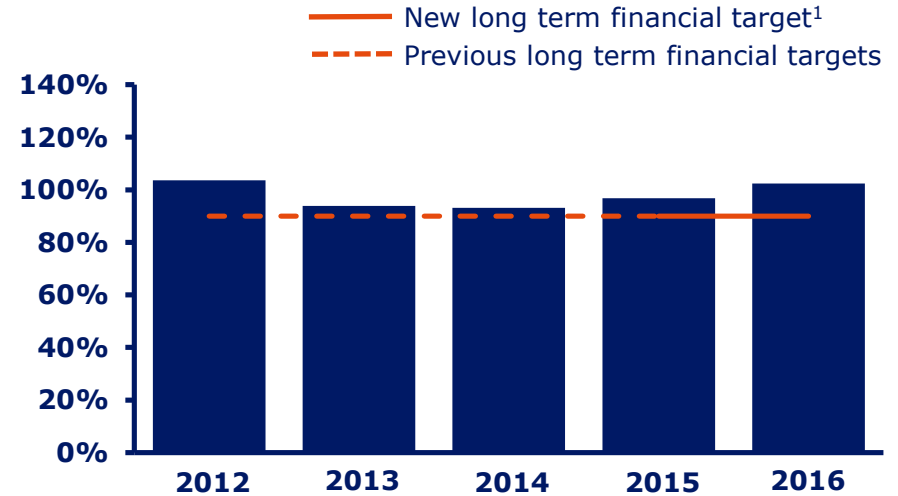
Long term financial targets:

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

Key assumptions supporting the long term financial target of an average of 5% operating profit growth¹

Expected future sales drivers

Insulin

- Continued underlying 3-4% volume growth of the global insulin market
- Market share gains and value upgrades driven by the new-generation franchise

GLP-1

- Continued expansion of the GLP-1 market with underlying volume growth of >10% annually
- Solid market leadership with Victoza® supported by semaglutide launch (exp 2018)

Obesity

- Continued expansion of the obesity market with Saxenda® in the US
- Successful launches in new markets

Biopharm

- Limited growth of the biopharm franchise mainly due to increased competition in the haemophilia space
- Potential for bolt-on activity to support growth

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

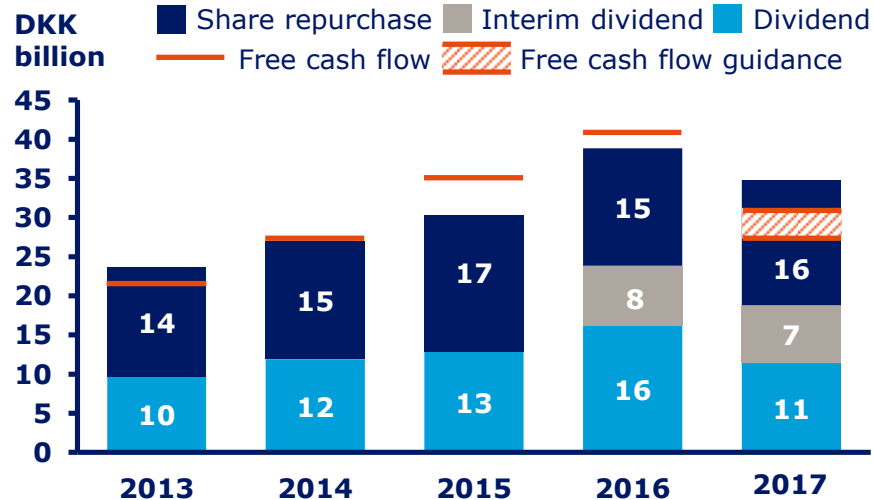
- Admin to sales ratio expected to decline to around 3%
- Lower growth in admin costs driven by various savings initiatives

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.

GM: Gross margin

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

Business development activities

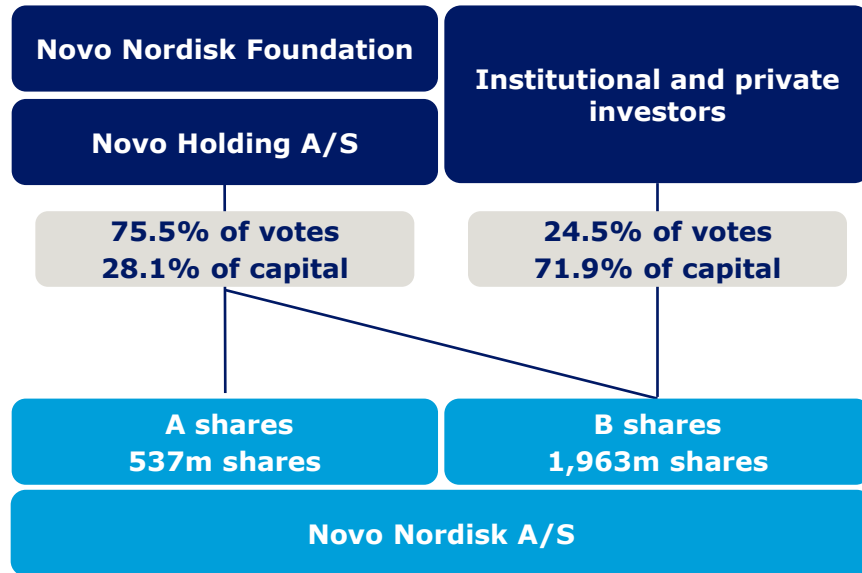
- External academic and business collaborations
- Bolt-on within Biopharm and adjacent disease areas
- Ramp-up in internal organisational capabilities

Note: Interim dividend for 2017 of DKK 3.00 per share of DKK 0.20 will be paid in August 2017. 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.

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

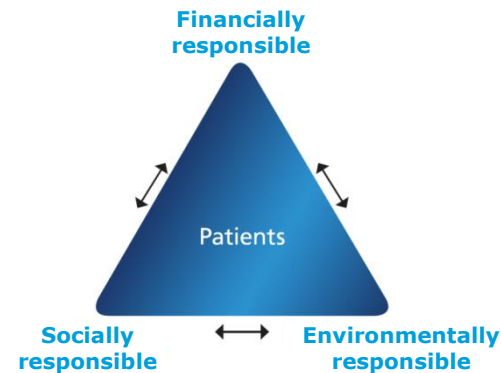
Sustainability

The Novo Nordisk Way



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

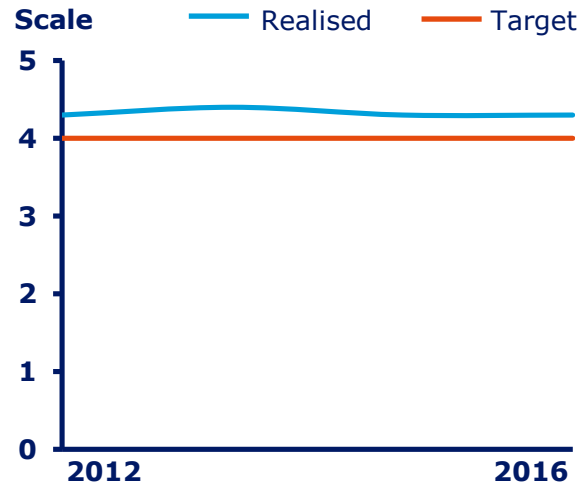
The Triple Bottom Line Business Principle



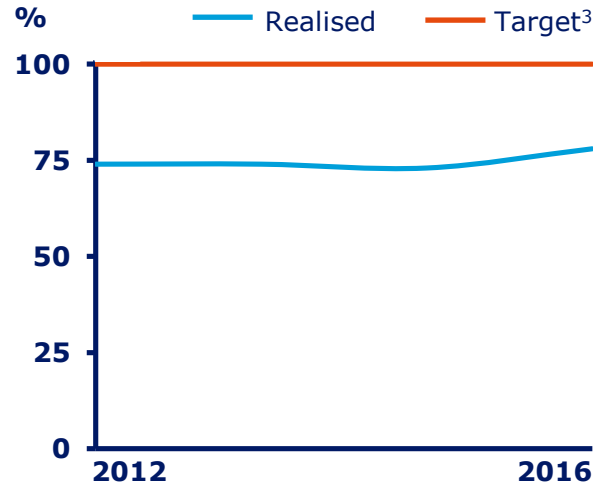
The **Triple Bottom Line Principle** guides how we do business responsibly and how we make decisions that consider the interests of stakeholders and the long-term interests of our shareholders

2016 performance towards achieving long-term sustainability goals

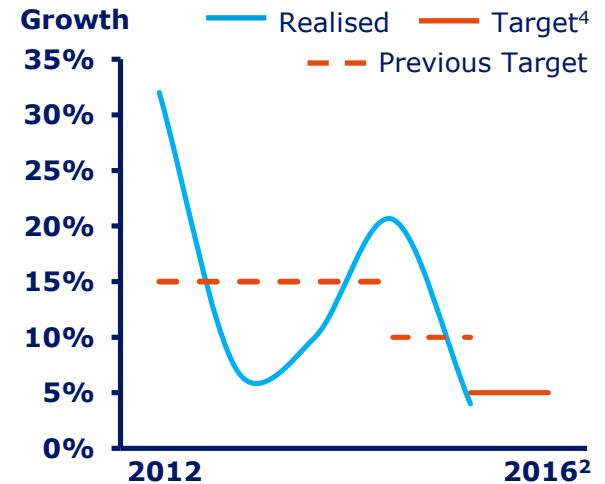
Working the Novo Nordisk Way¹



Share of renewable power for production



Operating profit growth



¹ Average score in annual employee survey (1-5)

² 2015 and 2016 adjusted for the partial divestment of NNIT A/S and inflammatory out-licensing in 2015

³ Target to be met by 2020

⁴ Target updated in connection with the Q3 2016 earnings statement

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



City Leaders



- 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



2/3 of people living with diabetes live in urban areas



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 LY¹



4.4 engagement score with the Novo Nordisk Way



89.8% retention rate

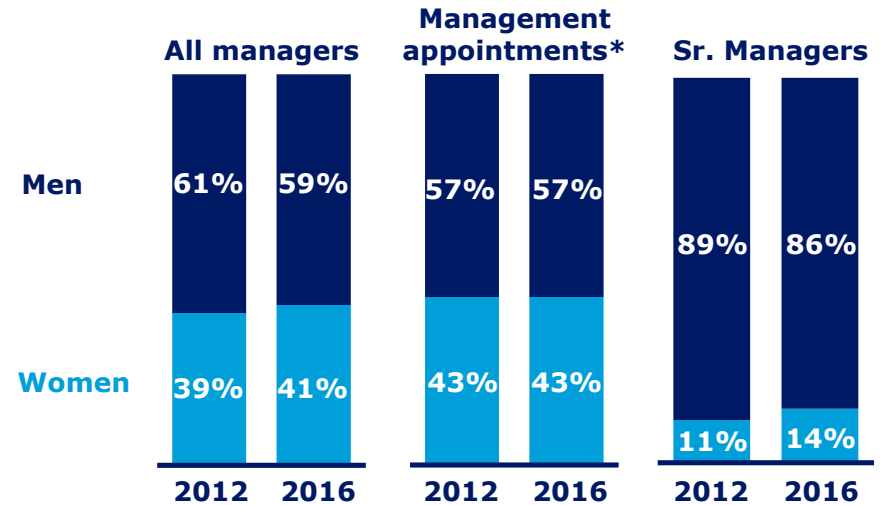


3.0 accidents per million working hours

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

changing
diabetes®

Novo Nordisk is committed to building a diverse and inclusive organisation



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