Novo Nordisk
– a focused healthcare company

Investor presentation
First nine months of 2020
Agenda

Progress on Strategic aspirations 2025
COVID-19 update
Commercial execution
Innovation and therapeutic focus
Financials
Forward-looking statements

Novo Nordisk's reports filed with or furnished to the US Securities and Exchange Commission (SEC), including this presentation as well as the company's statutory Annual Report 2019 and Form 20-F, which are both expected to be filed with the SEC in February 2020 in continuation of the publication of the Annual Report 2019, 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', '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 recalls, 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.

For an overview of some, but not all, of the risks that could adversely affect Novo Nordisk's results or the accuracy of forward-looking statements in this presentation, reference is made to the overview of risk factors in 'Managing risks to protect value' on pp 33-35 of the Annual Report 2019.

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® is approved for the management of type 2 diabetes only
- Saxenda® is approved in the USA and the EU for the treatment of obesity only
Strategic aspirations 2025
- Highlights first nine months of 2020

Adding value to society:
- Launch of new social responsibility strategy ‘Defeat Diabetes’
- Expansion of US affordability offerings
- Lowered ceiling price of human insulin in 76 countries

Environment:
- 100% renewable power across all production sites
- Launch of supplier target aiming at 100% renewable power by 2030

Diabetes:
- Insulin icodex phase 2 trial successfully completed
- Rybelsus® approved in the EU, the UK and Japan

Obesity:
- Sema 2.4 mg obesity phase 3 programme and AM833 + sema 2.4 mg phase 1 trial successfully completed

Biopharm:
- Concizumab phase 3 reinitiated

Other serious chronic disease:
- Successful completion of phase 2 trials for zilti and semaglutide in NASH

Sales increased by 7% to DKK 94.8 billion
- 12% sales growth in IO
- 2% sales growth in NAO, with 47% of US sales transformed to products launched since 2015

Operating profit increased by 7% to DKK 42.9 billion

Free cash flow increased by 27% to DKK 41.6 billion and DKK 31 billion returned to shareholders

The strategic aspirations are objectives that Novo Nordisk intends to work towards and are not a projection of Novo Nordisk’s financial outlook or expected growth

Note: Unless otherwise specified growth rates are at constant exchange rates

IO: International Operations; NAO: North America Operations; Sema: Semaglutide; NASH: Non-alcoholic steatohepatitis
Novo Nordisk response to COVID-19 pandemic

Novo Nordisk status across the value chain

**Production**
- Manufacturing sites are operational
- Medicines available to patients worldwide

**R&D**
- Continuation of all clinical trials already initiated
- Trial recruitment still below pre-COVID-19 levels
- Some new trials initiated

**Commercial**
- Gradual recovery of patient initiations in the third quarter
- Operations are running accordingly
- In many markets, sales representatives are partially back in the field
- Increased utilisation of digital tools

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**US GLP-1 prescription development during COVID-19 pandemic**

- TRx: Total prescriptions; NBRx: New-to-brand prescriptions; RHS: Right-hand side axis
- Source: IQVIA, each data point represents 4 weeks total, Oct 2020

- 13 March, lockdown implemented in most states
Sales growth of 7% driven by International Operations and GLP-1

Reported geographic sales split for the first nine months of 2020

Added reported therapy area sales and growth

1 ‘Other diabetes’ is included in Total

IO: International Operations; EMEA: Europe, Middle East and Africa; China: Mainland China, Hong Kong and Taiwan; RoW: Rest of World; NAO: North America Operations

Note: Unless otherwise specified, sales growth rates are at CER
Diabetes value market leadership continues to expand

**Novo Nordisk global diabetes value market share**

![Diabetes and GLP-1 market share chart]

**Diabetes value market leadership expansion driven by the GLP-1 and insulin franchises**

GLP-1 value market share has increased by ~3%-points since 2019, driven by:

- Ozempic® launched in 48 countries
- Uptake of Ozempic® and launch of Rybelsus® in North America Operations

Insulin value market share has increased by 0.2%-points since 2019, driven by:

- New-generation insulins in International Operations facilitated by our Market Fit approach

New generation insulins include: Tresiba®, Ryzodeg®, Fiasp® and Xultophy®

CER: Constant exchange rates
Source: IQVIA MAT, Aug 2020
Note: Unless otherwise specified, sales growth are at CER
Ozempic® and Rybelsus® continue to expand GLP-1 NBRx and TRx market leadership in the US

US GLP-1 NBRx market share

- Ozempic®
- Rybelsus®
- dulaglutide
- NN GLP-1
- Victoza®

NBRx share

Jun 2019: 13.5%
Oct 2020: 60.2%

US GLP-1 TRx market size and market share

- Ozempic®
- Rybelsus®
- dulaglutide
- NN GLP-1
- Victoza®

TRx share

Class growth around 30%

Jun 2019: 34.5%
Oct 2020: 49.6%

Source: NBRx-IQVIA National LRx Weekly, Sep 2020
NBRx: New-to-brand prescriptions; TRx: Total prescriptions; NN: Novo Nordisk
Promising Rybelsus® launch in the US with European launches underway

Launch uptake of Rybelsus® vs SGLT-2s in the US

Rybelsus® re-gaining momentum in the US and launches in Europe are underway

In the US:
- Market access now around 85% across commercial and Medicare
- More than 80% of new prescriptions are new to the GLP-1 class
- Direct-to-consumer advertising initiated 21 September 2020

Outside of the US, Rybelsus® has now been launched in eight countries

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1 SGLT-2s is an average of empagliflozin and canagliflozin NBRx count. Source: IQVIA Xponent, weekly, Oct 2020

NBRx: New-to-brand prescriptions
International Operations had double digit diabetes sales growth across all regions and expanded Novo Nordisk market share

Reported diabetes sales and growth per IO geography

<table>
<thead>
<tr>
<th>Geographical area</th>
<th>Insulin</th>
<th>GLP-1</th>
<th>Growth at CER</th>
</tr>
</thead>
<tbody>
<tr>
<td>IO</td>
<td>13%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMEA</td>
<td>11%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>12%</td>
<td>14%</td>
<td>51%</td>
</tr>
<tr>
<td>RoW</td>
<td>35%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Diabetes value market share and share of growth in IO

- Market share: NN market share (30.0%) vs. NN share of growth (22.7%)
- Market share +0.7-pp vs. 2019

Source: IQVIA moving annual total, spot rate, Aug 2020

IO: International operations; NN: Novo Nordisk; pp: Percentage points; EMEA: Europe, Middle East and Africa; China: Mainland China, Hong Kong and Taiwan; RoW: Rest of World
Saxenda® sales growth of 6% is impacted by COVID-19 as fewer patients initiated treatment

Reported sales split in operational units

Novo Nordisk remains global market leader

- Novo Nordisk expands market leadership to 63%
- Saxenda® is now launched in 54 countries
- Sales growth impacted by fewer patients initiating treatment due to COVID-19 pandemic
- Sales growth of 8% driven by EMEA and Rest of World
- Novo Nordisk currently has a value market share of 40% in the obesity prescription drug market
- Sales growth of 4% driven by both the USA and Canada
- Novo Nordisk currently has a value market share of 78% in the obesity prescription drug market

1 Annual growth at CER
2 Year-to-date growth at CER
EMEA: Europe, Middle East and Africa, NAO: North America operations, IO: International operations, RHS: Right hand side axis
Note: Sales growth at constant exchange rates
Biopharm sales growth of 4% driven by Norditropin® and launches of new haemophilia products

**Added reported Biopharm sales (YTD 2020 vs YTD 2019)**

<table>
<thead>
<tr>
<th></th>
<th>DKK billion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Growth at CER</strong></td>
<td></td>
</tr>
<tr>
<td>4%</td>
<td>-7%</td>
</tr>
<tr>
<td>1%</td>
<td>38%</td>
</tr>
<tr>
<td>13%</td>
<td></td>
</tr>
</tbody>
</table>

**Haemophilia**

**Total**

**Novo-Seventh®**

**Novo-Eight®**

**Other haemophilia®**

**Norditropin®**

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**Biopharm sales driven by global commercial execution**

**Biopharm sales growth** driven by:
- 8% growth in International Operations
- Norditropin® and launches of new haemophilia products

**Haemophilia sales decreased by 2%** as:
- Successful Esperoct® and Refixia® launches are countering the Novoseven® sales decline

**Norditropin® sales increased by 13%**
- Novo Nordisk is the leading company in the global human growth disorder market with a value market share of 35.3%
- Driven by new indications and global roll-out of the next generation device

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YTD: Year-to-date
Note: ‘Other haemophilia’ includes the new products Esperoct® and Refixia® as well as NovoThirteen®. Unless otherwise specified, sales growth is at constant exchange rates
Ziltivekimab phase 2b RESCUE trial has successfully completed

In the RESCUE trial, zilti QM showed reduction in hsCRP at all dose levels

- Ziltivekimab 7.5 mg
- Ziltivekimab 15 mg
- Ziltivekimab 30 mg

% change

- placebo
- ziltivekimab 7.5 mg
- ziltivekimab 15 mg
- ziltivekimab 30 mg

12 weeks of treatment
End of treatment

Zilti QM showed reductions in inflammation biomarkers

Zilti QM appeared to have a safe and well-tolerated profile

Addressing the residual risk of CVD for more than 5 million patients with ASCVD, CKD, and inflammation

The phase 3 cardiovascular outcomes trial is expected to be initiated in H2 2021

1 Primary endpoint was the median percent change in hsCRP. * Indicates statistical significance, p < .0001
2 End of treatment is defined as the average of values at week 23 and week 24
3 Inflammation biomarkers include: Fibrinogen, serum amyloid A, haptoglobin and NTproBNP
4 Inflammation is defined as c-reactive protein levels greater than 2
Zilti: Ziltivekimab; QM: Once-monthly; hsCRP: High-sensitivity c-reactive protein; CVD: Cardiovascular disease; ASCVD: Atherosclerotic cardiovascular disease; CKD: Chronic kidney disease
R&D milestones for Q3 2020 through 2021

<table>
<thead>
<tr>
<th>Project</th>
<th>Q3 2020</th>
<th>Q4 2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diabetes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ozempic®</td>
<td>✓Phase 3b initiation – Peripheral artery disease</td>
<td>SUSTAIN FORTE – Phase 3 results</td>
<td>SUSTAIN FORTE – US/EU submission</td>
</tr>
<tr>
<td>Xultophy®</td>
<td>✓China submission</td>
<td>Phase 3 initiation</td>
<td>Phase 1 results</td>
</tr>
<tr>
<td>Icodec</td>
<td></td>
<td>Phase 3 initiation</td>
<td>Phase 1 results</td>
</tr>
<tr>
<td>Glucose sensitive insulin</td>
<td>✓Phase 1 initiation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral semaglutide</td>
<td>✓Phase 1 initiation – 25 mg and 50 mg</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Obesity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semaglutide 2.4 mg</td>
<td></td>
<td>US/EU submission/decision</td>
<td>Phase 3 initiation</td>
</tr>
<tr>
<td>AM833 + semaglutide 2.4 mg</td>
<td></td>
<td></td>
<td>Phase 1 results</td>
</tr>
<tr>
<td>LA-GDF15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Biopharm</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sogroya® (somapacitan, AGHD)</td>
<td>✓US decision</td>
<td>EU decision</td>
<td>Japan decision</td>
</tr>
<tr>
<td>Concizumab</td>
<td>✓Phase 3 trials reinitiated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mim8</td>
<td></td>
<td></td>
<td>Phase 1/2 results</td>
</tr>
<tr>
<td><strong>Other serious chronic diseases</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semaglutide NASH</td>
<td>✓Phase 2 results (PoC, Gilead)</td>
<td></td>
<td>Phase 3 initiation</td>
</tr>
<tr>
<td>Ziltivekimab</td>
<td>✓Phase 2 results</td>
<td></td>
<td>Phase 3 initiation</td>
</tr>
</tbody>
</table>

1 Expected to be published in the given quarter or in the subsequent quarterly company announcement

Note: Trial initiations could be impacted by COVID-19 status. Timeline for the FGF-21 in NASH project has moved.

LA-GDF: Long-acting growth differentiation factor; AGHD: Adult growth hormone deficiency; PoC: Proof of Concept; NASH: Non-alcoholic steatohepatitis
# Financial results – First nine months of 2020

<table>
<thead>
<tr>
<th>In DKK million</th>
<th>First nine months of 2020</th>
<th>First nine months of 2019</th>
<th>Change (reported)</th>
<th>Change (CER)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales</strong></td>
<td>94,808</td>
<td>89,604</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td><strong>Gross profit</strong></td>
<td>79,495</td>
<td>74,948</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td><strong>Gross margin</strong></td>
<td>83.8%</td>
<td>83.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales and distribution costs</td>
<td>23,162</td>
<td>22,287</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Percentage of sales</strong></td>
<td>24.4%</td>
<td>24.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research and development costs</td>
<td>10,979</td>
<td>9,836</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td><strong>Percentage of sales</strong></td>
<td>11.6%</td>
<td>11.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration costs</td>
<td>2,760</td>
<td>2,772</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Percentage of sales</strong></td>
<td>2.9%</td>
<td>3.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other operating income, net</td>
<td>354</td>
<td>557</td>
<td>(36%)</td>
<td></td>
</tr>
<tr>
<td><strong>Operating profit</strong></td>
<td>42,948</td>
<td>40,610</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td><strong>Operating margin</strong></td>
<td>45.3%</td>
<td>45.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial items (net)</td>
<td>(1,820)</td>
<td>(3,136)</td>
<td>(42%)</td>
<td></td>
</tr>
<tr>
<td><strong>Profit before income tax</strong></td>
<td>41,128</td>
<td>37,474</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Income taxes</td>
<td>8,308</td>
<td>7,240</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td><strong>Effective tax rate</strong></td>
<td>20.2%</td>
<td>19.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Net profit</strong></td>
<td>32,820</td>
<td>30,234</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Diluted earnings per share (DKK)</td>
<td>14.00</td>
<td>12.68</td>
<td>10%</td>
<td></td>
</tr>
</tbody>
</table>

CER: Constant exchange rates
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 26 Oct 2020.
## Strategic aspirations 2025

### Purpose and sustainability
- Being respected for adding value to society
- Progress towards zero environmental impact
- Ensure distinct core capabilities and evolve culture

### Innovation and therapeutic focus
- Further raise the innovation-bar for diabetes treatment
- Develop a leading portfolio of superior treatment solutions for obesity
- Strengthen and progress the Biopharm pipeline
- Establish presence in Other serious chronic diseases focusing on CVD, NASH and CKD

### Commercial execution
- Strengthen Diabetes leadership - aim at global value market share of more than 1/3
- Strengthen Obesity leadership and double current sales\(^1\)
- Secure a sustained growth outlook for Biopharm

### Financials
- Deliver solid sales and operating profit growth
  - Deliver 6-10% sales growth in IO
  - Transform 70% of sales in the US\(^2\)
- Drive operational efficiencies across the value chain to enable investments in future growth assets
- Deliver free cash flow to enable attractive capital allocation to shareholders

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\(^1\) Based on reported sales in 2019, \(^2\) From 2015 to 2022. IO: International Operations; CVD: Cardiovascular disease; NASH: Non-alcoholic steatohepatitis; CKD: Chronic kidney disease.
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: www.novonordisk.com

Upcoming events
03 Feb 2021  Financial statement for the full year of 2020
25 March 2021  Annual General Meeting
5 May 2021  Financial statement for the first three months of 2021
5 August 2021  Financial statement for the first six months of 2021
3 November 2021  Financial statement for the first nine months of 2021

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# Appendix

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novo Nordisk corporate strategy</td>
<td>20</td>
</tr>
<tr>
<td>Diabetes care</td>
<td>32</td>
</tr>
<tr>
<td>Obesity care</td>
<td>49</td>
</tr>
<tr>
<td>Biopharm &amp; Other serious chronic diseases</td>
<td>59</td>
</tr>
<tr>
<td>Regional information</td>
<td>75</td>
</tr>
<tr>
<td>Financials</td>
<td>108</td>
</tr>
<tr>
<td>Sustainability</td>
<td>117</td>
</tr>
</tbody>
</table>
Diabetes care

Strengthen leadership by offering innovative medicines and driving patient outcomes

Obesity care

Strengthen treatment options through market development and by offering innovative medicines and driving patient outcomes

Biopharm

Secure a leading position by leveraging full portfolio and expanding into adjacent areas

Other serious chronic diseases

Establish presence by building competitive pipeline and scientific leadership
Novo Nordisk’s opportunity is in the large unmet needs across all therapy areas in scope

**DIABETES**

- ~463 million people with diabetes
- ~6% people in good control

**OBESITY**

- ~650 million people with obesity
- ~2% people medically treated

**HAEMOPHILIA**

- ~0.5 million people with haemophilia
- ~25% people being treated

**OTHER SERIOUS CHRONIC DISEASES**

- 80% of diagnosed NASH patients are obese and 35% have T2DM
- 70% of diabetes patients die from atherosclerotic CVD
- 40% of patients hospitalised for heart failure are diabetic
- ~50% of the total CKD population suffers from diabetic nephropathy

NASH: Non-alcoholic steatohepatitis, T2DM: Type 2 diabetes mellitus, CVD: Cardiovascular disease, CKD: Chronic kidney disease

Novo Nordisk has leading positions in diabetes, obesity and haemophilia

**Diabetes care**
- CAGR\(^1\) value: 12.0%

**Obesity care**
- CAGR\(^2\) value: 10.1%

**Haemophilia**
- CAGR\(^3\) value: 2.0%

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1. CAGR for 5-year period; 2. CAGR for 2-year period; 3. CAGR for 5-year period; Note: Annual sales figures for haemophilia A, B and bypassing agents segment. Recombinant and plasma derived products

Source: Company reports, IQVIA MAT, Aug 2020

NN: Novo Nordisk
Continued single digit volume growth within the insulin segments globally

1 CAGR for 5-year period
2 Includes new-generation insulin. tMU: Thousand mega units; NN: Novo Nordisk
Note: Modern insulin (MI) penetration is of total segment, i.e. including animal and human insulin; Data is sensitive to changes in IQVIA data collection and reporting methodology.
Source: IQVIA MAT, Aug 2020 volume figures
Sales growth of 7% at CER, mainly driven by the Diabetes and Obesity care segment

Novo Nordisk reported quarterly sales by therapy

Reported sales for the first nine months of 2020

Sales of DKK 94.8 billion (+7%)

Reported sales and growth breakdown for the first nine months of 2020

<table>
<thead>
<tr>
<th>Therapy</th>
<th>Sales (mDKK)</th>
<th>Growth</th>
<th>Share of growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-acting insulin²</td>
<td>13,426</td>
<td>(13%)</td>
<td>(33%)</td>
</tr>
<tr>
<td>Premix insulin³</td>
<td>8,220</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td>Fast-acting insulin³</td>
<td>14,082</td>
<td>(1%)</td>
<td>(2%)</td>
</tr>
<tr>
<td>Human insulin</td>
<td>7,195</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>Total insulin</td>
<td>42,923</td>
<td>(3%)</td>
<td>(18%)</td>
</tr>
<tr>
<td>GLP-1⁴</td>
<td>30,051</td>
<td>29%</td>
<td>107%</td>
</tr>
<tr>
<td>Other Diabetes care⁶</td>
<td>3,056</td>
<td>(4%)</td>
<td>(2%)</td>
</tr>
<tr>
<td>Total Diabetes care</td>
<td>76,030</td>
<td>8%</td>
<td>87%</td>
</tr>
<tr>
<td>Obesity care (Saxenda®)</td>
<td>4,223</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Diabetes and Obesity care</td>
<td>80,253</td>
<td>8%</td>
<td>91%</td>
</tr>
<tr>
<td>Haemophilia⁷</td>
<td>7,522</td>
<td>(2%)</td>
<td>(2%)</td>
</tr>
<tr>
<td>Growth disorders (Norditropin®)</td>
<td>5,872</td>
<td>13%</td>
<td>11%</td>
</tr>
<tr>
<td>Other Biopharm</td>
<td>1,161</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Biopharm</td>
<td>14,555</td>
<td>3%</td>
<td>9%</td>
</tr>
<tr>
<td>Total</td>
<td>94,808</td>
<td>7%</td>
<td>100%</td>
</tr>
</tbody>
</table>

¹ CAGR for 10-year period; ² Comprises Tresiba®, Xultophy® and Levemir®; ³ Comprises Ryzodeg® and NovoMix®; ⁴ Comprises Fiasp® and NovoRapid®; ⁵ Comprises Victoza®, Ozempic®, Rybelsus®; ⁶ Primarily Novonorm®, needles and GlucaGen® HypoKit®; ⁷ Comprises NovoSeven®, NovoLight®, NovoThirteen® Refixia®, and Esperoct®; ⁸ Primarily Vagifem®, Activelle®, Macrilen®. Note: Refixia® and NovoThirteen® are launched as Rebinyn® and TRETEN®, respectively, in North America.

Note: Sales numbers are reported in Danish kroner; Growth is at constant exchange rates
Sales growth of 7% at CER, driven by IO sales growth of 12% and 2% sales growth in NAO

**Historic sales by geography**

<table>
<thead>
<tr>
<th>Region</th>
<th>2015</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>51%</td>
<td>50%</td>
</tr>
<tr>
<td>EMEA</td>
<td>32%</td>
<td>31%</td>
</tr>
<tr>
<td>China</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>RoW</td>
<td>9%</td>
<td>11%</td>
</tr>
</tbody>
</table>

**Sales of DKK 94.8 billion (+7%)**

**Reported sales for the first nine months 2020**

- North America Operations: 50,399 mDKK (12% growth, 83% share of growth)
- EMEA: 26,159 mDKK (11% growth, 39% share of growth)
- Region China: 10,836 mDKK (12% growth, 19% share of growth)
- RoW: 13,404 mDKK (13% growth, 25% share of growth)

**Reported sales and growth breakdown for the first nine months 2020**

<table>
<thead>
<tr>
<th>Regions</th>
<th>Sales (mDKK)</th>
<th>Growth</th>
<th>Share of growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Operations</td>
<td>50,399</td>
<td>12%</td>
<td>83%</td>
</tr>
<tr>
<td>EMEA</td>
<td>26,159</td>
<td>11%</td>
<td>39%</td>
</tr>
<tr>
<td>Region China</td>
<td>10,836</td>
<td>12%</td>
<td>19%</td>
</tr>
<tr>
<td>RoW</td>
<td>13,404</td>
<td>13%</td>
<td>25%</td>
</tr>
<tr>
<td>North America Operations</td>
<td>44,409</td>
<td>2%</td>
<td>17%</td>
</tr>
<tr>
<td>Here of USA</td>
<td>41,947</td>
<td>2%</td>
<td>11%</td>
</tr>
<tr>
<td>Total sales</td>
<td>94,808</td>
<td>7%</td>
<td>100%</td>
</tr>
</tbody>
</table>

IO: International Operations; NAO: North American Operations; EMEA: Europe, Middle East, and Africa; RoW: Rest of World; Region China covers mainland China, Hong Kong and Taiwan.

Note: Numbers do not add up to 100% due to rounding; Growth at Constant exchange rates; Sales numbers are reported in Danish kroner; Growth is at constant exchange rates.
Insulin sales remain important with more than 40% share of revenue but with less dependence on the US insulin sales.
Novo Nordisk has a set of strategic aspirations including an innovation and therapeutic focus

Further raise the innovation bar for diabetes treatment

Develop a leading portfolio of superior treatment solutions for obesity

Strengthen and progress the Biopharm pipeline

Establish presence in Other serious chronic diseases

CVD: Cardiovascular disease; CKD: Chronic kidney disease; NASH: Non-alcoholic steatohepatitis
The future of R&D is to focus on increasing the number of clinical assets while maintaining industry-leading late-stage success.

NASH: Non-alcoholic steatohepatitis; CVD: Cardiovascular disease; CKD: Chronic kidney disease. ¹Probabilities of success to market were calculated using substances entering phase between 2008 and 2014 and year of assessment 2017. Source: CMR International, 2017
# Pipeline supports significant growth opportunities across all four strategic focus areas

**PHASE 1**
- NN1535 – Icosema (LAIsema)
- NN1965 – Insulin 965
- NN1147 – Insulin 147
- NN9389 – QW Sema + GIP
- NN1845 – Glucose sensitive insulin
- NN9775 – PYY 1875 analogue
- NN9215 – LA-GDF15
- NN9838 – AM833 and Sema
- NN7769 – Mir8 (Phase 1/2)
- NN7533 – Eclipse
- NN9500 – FGF-21 NASH
- NN6434 – PCSK9i
- NN6177 – GG-co-agonist
- STT-5058 – STATEN, ApoC3 mAb

**PHASE 2**
- NN1436 – Icodec (LAI287)
- NN9838 – Amylin AM833
- EX2020 – Macrilen, GHD
- NN9931 – Semaglutide NASH
- NN9931 – Gilead NASH
- NN6018 – Ziltivekimab

**PHASE 3**
- Semaglutide obesity
  - SELECT - Semaglutide 2.4 mg in obesity CVOT
  - Somapacitan – QW GHD
  - Concizumab
  - SUSTAIN FORTE - Semaglutide 2.0 mg
  - SOUL - Oral semaglutide CVOT
  - FOCUS - Semaglutide 1.0 mg in chronic kidney disease
- Study conducted in adult growth hormone disorder; 2 Study conducted in growth hormone disorders; 3 Approved in the US, the EU, and Japan; submitted in Canada; 4 Study conducted in NASH; 5 Novo Nordisk only holds the commercial rights in North America; 6 Approved in the US

**SUBMITTED**
- Somapacitan – QW AGHD

**APPROVED**
- Tresiba®
- Xultophy®
- Levemir®
- Ryzodeg®
- NovoMix®
- Fiasp®
- NovoRapid®
- Victoza®
- Ozempic®
- Rybelsus®
- Saxenda®
- NovoSeven®
- NovoEight®
- NovoThirteen®
- Refixia®/Rebinyn®
- Norditropin®
- Sogroya®

<table>
<thead>
<tr>
<th>Diabetes</th>
<th>Obesity</th>
<th>Haemophilia</th>
<th>Growth Disorders</th>
<th>Other serious chronic disease</th>
</tr>
</thead>
</table>

1. Study conducted in adult growth hormone disorder; 2. Study conducted in growth hormone disorders; 3. Approved in the US, the EU, and Japan; submitted in Canada; 4. Study conducted in NASH; 5. Novo Nordisk only holds the commercial rights in North America; 6. Approved in the US

LAIsema: Long-acting insulin combined with semaglutide; PYY: Peptide YY; QW: Once-weekly; GG: Glucagon GLP-1; mAb: monoclonal antibody; GDF15: Growth differentiation factor 15; Sema: Semaglutide; FGF-21: Fibroblast growth factor 21; LAI: Long-acting insulin; AGHD: Adult growth hormone disease; GHD: Growth hormone disorder; lira: Liraglutide; Note: the obesity co-agonist and tri-agonist projects have been terminated
Novo Nordisk holds solid patent protection, high barriers to entry, and a collaborative approach to innovation

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

<table>
<thead>
<tr>
<th>EU/US patent protection¹</th>
<th>Barriers to entry for biosimilar players</th>
<th>Partnerships and acquisitions support future R&amp;D</th>
</tr>
</thead>
<tbody>
<tr>
<td>2031²</td>
<td>Research &amp; Development</td>
<td>siRNA treatments</td>
</tr>
<tr>
<td></td>
<td>• Need to show comparability in PK/PD trials</td>
<td>Combination treatments for NASH</td>
</tr>
<tr>
<td></td>
<td>• Strict regulatory requirements in the EU and the US</td>
<td>Novel treatments for CVD</td>
</tr>
<tr>
<td></td>
<td>• Requirement for both drug and device offering</td>
<td>Gene editing for haemophilia</td>
</tr>
<tr>
<td>2031²,³</td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Economies of scale</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Up-front CAPEX requirements with slow return on investment</td>
<td></td>
</tr>
<tr>
<td>2030⁴</td>
<td>Commercialisation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Large and fragmented target audience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cost pressure from payers</td>
<td></td>
</tr>
<tr>
<td>2034/3²</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• On-going conversion to next-generation drugs and slow market dynamics</td>
<td></td>
</tr>
<tr>
<td>2028/2¹</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2028/2²</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2027/2¹</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ List does not include all marketed products. ² Current estimates; ³ Tablet formulation and once-daily treatment regimen are protected by additional patents expiring in 2031-2034; ⁴ Formulation patent; active ingredient patent has expired; Saxenda® patent identical to Victoza® patent. PK: Pharmacokinetic; PD: Pharmacodynamic; CAPEX: Capital expenditure; siRNA: Silencing ribonucleic acid; NASH: Non-alcoholic steatohepatitis; CVD: Cardiovascular disease
Novo Nordisk’s core capabilities provide a competitive advantage to continue to defeat diabetes

**Engineering, formulating, developing and delivering protein-based treatments**

*Today:* Oral solutions to differentiate from competition

*Tomorrow:* Expand oral platforms and transformational medicines via Novo Nordisk stem cell platform

**Efficient large-scale production of proteins**

*Today:* The world’s largest producer of insulin and GLP-1

*Tomorrow:* Expand capacity by completion of the US diabetes API facility and continued efficiency gains

**Global commercial reach and leader in chronic disease care**

*Today:* Global reach and Ozempic® was the fastest blockbuster in diabetes

*Tomorrow:* Continued rollout of injectable diabetes portfolio and launch of Rybelsus®

**Deep disease understanding**

*Today:* Provide value and outcomes beyond HbA1c for diabetes

*Tomorrow:* Normalise living with diabetes supported by digital solutions

API: Active pharmaceutical ingredient
STRENGTHEN LEADERSHIP
by offering innovative medicines and driving patient outcomes

<table>
<thead>
<tr>
<th>Segment</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Disease and market</td>
<td>33</td>
</tr>
<tr>
<td>2. Insulin segment</td>
<td>41</td>
</tr>
<tr>
<td>3. GLP-1 segment</td>
<td>44</td>
</tr>
</tbody>
</table>
Diabetes – the inability to manage blood sugar levels appropriately

Facts about diabetes

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

Primary classifications:
- **Type 1 diabetes**: Complete insulin deficiency due to destruction of beta-cells in the pancreas.
- **Type 2 diabetes**: Characterised by some degree of insulin resistance and insulin deficiency.

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

Insulin action profiles

- **Fast-acting**
- **Premix**
- **Long-acting**
GLP-1s have positive effects beyond glycaemic control and treatment guidelines now reflect the CV risk benefits

**Medications for treatment of type 2 diabetes**

<table>
<thead>
<tr>
<th>Class</th>
<th>HbA1c change</th>
<th>Hypoglycaemia risk</th>
<th>Weight change</th>
<th>CV risk reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metformin</td>
<td>1.5</td>
<td>No</td>
<td>Neutral</td>
<td>Minimal</td>
</tr>
<tr>
<td>Sulfonylurea</td>
<td>1.5</td>
<td>Yes</td>
<td>Gain</td>
<td>None</td>
</tr>
<tr>
<td>TZDs</td>
<td>0.5 - 1.4</td>
<td>No</td>
<td>Gain</td>
<td>Varies</td>
</tr>
<tr>
<td>DPP-IV inhibitors</td>
<td>0.6 - 0.8</td>
<td>No</td>
<td>Neutral</td>
<td>Neutral</td>
</tr>
<tr>
<td>SGLT-2 inhibitors</td>
<td>0.5 - 0.9</td>
<td>No</td>
<td>Loss</td>
<td>Varies</td>
</tr>
<tr>
<td>GLP-1</td>
<td>1.0 – 1.8</td>
<td>No</td>
<td>Loss</td>
<td>Varies</td>
</tr>
<tr>
<td>Long-acting insulin</td>
<td>1.5 - 2.5</td>
<td>Yes</td>
<td>Gain</td>
<td>TG and HDL</td>
</tr>
<tr>
<td>Fast-acting insulin</td>
<td>1.5 - 2.5</td>
<td>Yes</td>
<td>Gain</td>
<td>TG and HDL</td>
</tr>
</tbody>
</table>

*Proven CVD benefit means it has label indication of reducing CVD events. For GLP-1 strongest evidence for liraglutide>semaglutide>exenatide extended release. For SGLT-2 evidence modestly stronger for empagliflozin>canagliflozin. ASCVD: atherosclerotic cardiovascular disease; CKD: chronic kidney disease; CV: cardiovascular; CVD: cardiovascular disease; CVOT: cardiovascular outcome trial; DPP-4: dipeptidyl peptidase-4 inhibitor; eGFR: estimated glomerular filtration rate; GLP-1: glucagon-like peptide-1 receptor agonist; HF: heart failure; SGLT-2: sodium glucose co-transporter-2 inhibitor

**ADA/EASD diabetes treatment guidelines for second-line treatment with established ASCVD or CKD**

First-line therapy is metformin and lifestyle management. If HbA1c above target, proceed as below

- Established ASCVD or CKD
- Without established ASCVD or CKD

- ASCVD predominates
  - GLP-1 with proven CVD benefit*
  - SGLT-2 with proven CVD benefit*, if eGFR adequate

- HF OR CKD predominant

If further intensification is required or patient is now unable to tolerate GLP-1 and/or SGLT-2, choose agents demonstrating CV safety...

People with diabetes have increased mortality risk with eight years shorter life expectancy, highlighting the importance of innovation.
Global diabetes prevalence is increasing and 700 million people are expected to have diabetes by 2045

The number of people with diabetes is expected to increase 51% by 2045

![Bar chart showing the expected increase in diabetes cases from 2019 to 2045.](chart1.png)

Of the 463 million, around 30 million people are currently treated with Novo Nordisk diabetes products

- 1.9 mio treated with GLP-1
- 2.4 mio treated with new-generation insulin
- 13.0 mio treated with modern insulin
- 10.9 mio treated with human insulins

EMEA: Europe, Middle East, Africa; RoW: Asia Pacific, Latin America;

1 In addition to the above-mentioned product classes, oral anti-diabetics constitutes the remainder of people treated with Novo Nordisk products.
Diabetes is a chronic disease requiring treatment intensification over time

Note: Patient distribution across treatment classes is indicative and based on data for the USA, Germany and France. Other OADs covers: metformin, sulfonylurea, thiazolidinediones.
Source: IQVIA PharMetrix claims data, IQVIA disease analyser, IQVIA MIDAS; value figures based on IQVIA MAT, Aug 2020
OAD: Oral anti-diabetic
Diabetes volume growth remains solid with 4% growth in a large USD 50 billion diabetes market

The number of treated patients\(^1\) is expected to grow by 4% annually towards 2026

The diabetes realised value\(^2\) is expected to grow by 3% annually towards 2026

---

**Key trends in diabetes**

- Innovation focused on oral GLP-1 and combinations
- Biosimilar competition and loss of exclusivity
- Diabetes technology with digital health
- Patients outcome beyond glucose control
- Evolving payer dynamics and market access hurdles
- Access and affordability of medicine

---

\(^{1}\) Patient data: Novo Nordisk forecast; \(^{2}\) Value data: 2018 data based on company reported sales and 2025 is based on a projection of diabetes market realised sales; Note: GLP-1+basal insulin combination sales are included in insulin; Other OAD includes metformin, SU and TZDs; DPP-4i+SGLT-2i products are included in the SGLT-2i group. Growth rates are compound annual growth rates (CAGR).
The total branded diabetes market for the first half of 2020, annualised, had a global value of DKK ~300 billion.

**Global diabetes market**

- **Total**
  - 2018/19: DKK 276 billion, +5%
  - 2019/20: DKK 295 billion, -3%

- **Insulin**
  - 2018/19: DKK 130 billion, -3%
  - 2019/20: DKK 128 billion

- **GLP-1**
  - 2018/19: DKK 58 billion, 24%
  - 2019/20: DKK 73 billion, -2%

- **DPP-IV**
  - 2018/19: DKK 60 billion
  - 2019/20: DKK 60 billion

- **SGLT-2**
  - 2018/19: DKK 28 billion, 19%
  - 2019/20: DKK 34 billion

**The USA**

- **Total**
  - 2018/19: DKK 143 billion
  - 2019/20: DKK 145 billion

- **Insulin**
  - 2018/19: DKK 61 billion
  - 2019/20: DKK 54 billion

- **GLP-1**
  - 2018/19: DKK 43 billion
  - 2019/20: DKK 43 billion

- **DPP-IV**
  - 2018/19: DKK 23 billion
  - 2019/20: DKK 21 billion

- **SGLT-2**
  - 2018/19: DKK 15 billion
  - 2019/20: DKK 16 billion

**Rest of the world**

- **Total**
  - 2018/19: DKK 134 billion
  - 2019/20: DKK 150 billion

- **Insulin**
  - 2018/19: DKK 69 billion
  - 2019/20: DKK 73 billion

- **GLP-1**
  - 2018/19: DKK 14 billion
  - 2019/20: DKK 19 billion

- **DPP-IV**
  - 2018/19: DKK 37 billion
  - 2019/20: DKK 39 billion

- **SGLT-2**
  - 2018/19: DKK 13 billion
  - 2019/20: DKK 18 billion

---

2018/19: Covers the four quarters from Q3 2018 to Q2 2019, except for Boehringer Ingelheim share of Trajenta which covers full year; 20182019/20: Covers the four quarters from Q3 2019 to Q2 2020, except for Boehringer Ingelheim share of Trajenta which covers full year 2019; Note: Constant exchange rates between periods and Boehringer Ingelheim's regional split is based on regional split from 2019 Annual report for prescription medicine; Source: Company reported sales.
Novo Nordisk has a strong leadership position within the growing diabetes market

Global diabetes market by treatment class

Market CAGR: 8.5%

Novo Nordisk remains global diabetes value market leader

Novo Nordisk market share and share of growth

1 Data is based on company reported sales from Sanofi, Eli Lilly, AstraZeneca, GSK, Novartis, Johnson & Johnson, and Merck. Data does not include generic metformin, sulphonylureas or thiazolidinedione.

2 CAGR for 5-year period

OAD: Oral anti-diabetic; NN: Novo Nordisk; Source: IQVIA MAT, Aug 2020 value figures Note: IQVIA data can be inflated due to use of list prices in the US; BI: Boehringer Ingelheim
Novo Nordisk global insulin market leadership expanded to 46.9% and the global insulin volume market grew by 2.8%

Source: IQVIA MAT, Aug 2020 volume figures

Note: Sales growth for first nine months of 2020 at constant exchange rates; Market shares are for Novo Nordisk and market growth for the total insulin market

1 MS gain/loss compared with Aug 2019 reported MS
EMEA: Europe, Middle East, Africa; MS: Market share; RoW: Asia Pacific; Latin America;
Insulin market size and volume share of growth and market share

**Insulin market share and market size (DKK billion)**

<table>
<thead>
<tr>
<th></th>
<th>Novo Nordisk</th>
<th>Competitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>45%</td>
<td>268</td>
</tr>
<tr>
<td>Long-Acting</td>
<td>38%</td>
<td>133</td>
</tr>
<tr>
<td>Fast-Acting</td>
<td>53%</td>
<td>93</td>
</tr>
<tr>
<td>Premix</td>
<td>66%</td>
<td>18</td>
</tr>
<tr>
<td>Human</td>
<td>36%</td>
<td>24</td>
</tr>
</tbody>
</table>

**Market growth**

- Total: 2%
- Long-Acting: 4%
- Fast-Acting: 0.1%
- Premix: -3.1%
- Human: 0.8%

**Δ Market share**

- Total: +0.3%
- Long-Acting: +0.0%
- Fast-Acting: +1.3%
- Premix: +0.7%
- Human: -0.8%

**Source:** IQVIA, Aug 2020, LHS graph - Value, RHS Graph - Volume, MAT, all countries; NN: Novo Nordisk
Icodec, a once-weekly insulin, improved PPG control, HbA$_{1c}$, and increased the number of patients reaching target in a phase 2 trial.

Icodec showed statistically significant post prandial blood glucose control

Numerical improvement in HbA$_{1c}$ over 26 weeks

The proportion of patients on icodec reaching HbA$_{1c}$ targets was higher

---

**Icodec showed statistically significant post prandial blood glucose control**

FPG (mmol/L)

- Icodec
- Glargine U100

---

**Numerical improvement in HbA$_{1c}$ over 26 weeks**

Change in HbA$_{1c}$

- Icodec
- Glargine U100

---

**The proportion of patients on icodec reaching HbA$_{1c}$ targets was higher**

<table>
<thead>
<tr>
<th>Weeks</th>
<th>HbA$_{1c}$ target</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>&lt; 7.0%</td>
</tr>
<tr>
<td>4</td>
<td>≤ 6.5%</td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td></td>
</tr>
</tbody>
</table>

Proportion of patients

- Icodec
- Glargine U100

---

*Statistically significant at week 26

PPG: Post-prandial control; FPG: Fasting plasma glucose
GLP-1 effect dependent on blood glucose level

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

Semaglutide holds a plethora of therapeutic opportunities

FORTE – Semaglutide 2.0 mg
Semaglutide s.c. ~961 patients, T2D

FOCUS - Diabetic retinopathy outcomes trial
Semaglutide s.c; ~1,500 patients, T2D ≥10 years

SOUL - Cardiovascular outcomes trial
Oral semaglutide; ~9,600 patients, T2D, established CVD or CKD

SELECT – Cardiovascular outcomes trial
Semaglutide 2.4 mg, ~17,500 patients with obesity and without diabetes, event driven

Semaglutide in NASH
Semaglutide s.c.; phase 2 trials

FLOW - Chronic kidney disease outcomes trial
Semaglutide 1.0 mg; ~3,200 patients, T2D, moderate to severe CKD

Investigator initiated trials
- Alzheimer’s disease
- Parkinson’s disease

S.c: Subcutaneous; T2D: Type 2 diabetes; CVD: Cardiovascular disease; CKD: Chronic kidney disease
The global GLP-1 market penetration varies across regions with Novo Nordisk having a best-in-class portfolio

GLP-1 market growth and Novo Nordisk market share

GLP-1 value and patient share\(^1\) of the total diabetes market

Source: \(^1\)Patient share based on data for the USA, the UK, Germany and France only. IQVIA MAT value, Aug 2020; EMEA: Europe, Middle East, Africa; RoW: Rest of World
GLP-1 sourcing is primarily from outside the class but GLP-1s are still typically used after failure on other products.

**US ‘line of usage’ across product classes**

- Metformin
- SU
- DPP-4i
- SGLT-2i
- GLP-1

**Share of patients on OADs achieving HbA1c below 7% in major European countries**

- HbA1c >7%
- HbA1c <7%

**GLP-1 source of business (new-to-brand prescription market share)**

- Insulin
- Treatment naive
- OAD
- GLP-1

Note: Data based on data from France, Germany, the UK and the USA only.
OAD: Oral anti-diabetic (includes but is not limited to DPP-IV, SGLT-2, metformin and sulfonylurea)
Source: IQVIA Disease Analyser (France, Germany and the UK) and IQVIA LIRx (USA), Jun 2018.
SUSTAIN trials with subcutaneous semaglutide

**Baseline**
- **SUSTAIN 1**: QW sema vs placebo in drug-naive people with T2D
- **SUSTAIN 2**: QW sema vs sitagliptin 100 mg QD in people with T2D added to 1–2 OADs
- **SUSTAIN 3**: QW sema vs QW exenatide ER 2.0 mg in people with T2D added to 1–2 OADs
- **SUSTAIN 4**: QW sema vs QD insulin glargine in people with T2D added to 1–2 OADs
- **SUSTAIN 5**: QW sema vs placebo in people with T2D added to insulin
- **SUSTAIN 6**: QW sema vs placebo, added to standard-of-care
- **SUSTAIN 7**: QW sema vs QW dulaglutide 75 mg and 150 mg in people with T2D added to 1–2 OADs

**Change in HbA1c (%)**
- **SUSTAIN 1**
  - Baseline: 8.1%
  - Change: -1.6% to -1.5%
- **SUSTAIN 2**
  - Baseline: 8.1%
  - Change: -1.3% to -1.5%
- **SUSTAIN 3**
  - Baseline: 8.3%
  - Change: -1.5% to -1.2%
- **SUSTAIN 4**
  - Baseline: 8.2%
  - Change: -1.6% to -1.2%
- **SUSTAIN 5**
  - Baseline: 8.4%
  - Change: -1.8% to -1.4%
- **SUSTAIN 6**
  - Baseline: 8.7%
  - Change: -1.4% to -1.1%
- **SUSTAIN 7**
  - Baseline: 8.2%
  - Change: -1.8% to -1.5%

**Change in weight (kg)**
- **SUSTAIN 1**
  - Baseline: 92 kg
  - Change: -4.5 kg to -3.7 kg
- **SUSTAIN 2**
  - Baseline: 89 kg
  - Change: -4.3 kg to -1.9 kg
- **SUSTAIN 3**
  - Baseline: 96 kg
  - Change: -5.6 kg to -1.9 kg
- **SUSTAIN 4**
  - Baseline: 93 kg
  - Change: -5.2 kg to -3.5 kg
- **SUSTAIN 5**
  - Baseline: 92 kg
  - Change: -6.4 kg to -3.7 kg
- **SUSTAIN 6**
  - Baseline: 92 kg
  - Change: -4.9 kg to -3.6 kg
- **SUSTAIN 7**
  - Baseline: 95 kg
  - Change: -6.5 kg to -3.0 kg

* Statistically significant: SUSTAIN 1: QW sema vs placebo in drug-naive people with T2D; SUSTAIN 2: QW sema vs sitagliptin 100 mg QD in people with T2D added to 1–2 OADs; SUSTAIN 3: QW sema vs QW exenatide ER 2.0 mg in people with T2D added to 1–2 OADs; SUSTAIN 4: QW sema vs QD insulin glargine in people with T2D added to 1–2 OADs; SUSTAIN 5: QW sema vs placebo in people with T2D added to insulin; SUSTAIN 6: QW sema vs placebo, added to standard-of-care; SUSTAIN 7: QW sema vs QW dulaglutide 75 mg and 150 mg in people with T2D added to 1–2 OADs. ER: Extended-release; QW: once weekly; QD: once daily; sema: semaglutide; T2D: type 2 diabetes; OAD: oral anti-diabetics
Novo Nordisk®

PIONEER programme with oral semaglutide

<table>
<thead>
<tr>
<th>PIONEER</th>
<th>Baseline</th>
<th>Change in HbA1c (%)</th>
<th>Change in weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8.0%</td>
<td>-0.8 -1.3 -1.4</td>
<td>-1.7 -2.5 -4.1</td>
</tr>
<tr>
<td>2</td>
<td>8.1%</td>
<td>-0.9 -1.4</td>
<td>-1.9 -3.8</td>
</tr>
<tr>
<td>3</td>
<td>8.3%</td>
<td>-1.1 -1.4</td>
<td>-1.2 -3.3</td>
</tr>
<tr>
<td>4</td>
<td>8.0%</td>
<td>-0.8 -1.1</td>
<td>-0.7 -2.2</td>
</tr>
<tr>
<td>5</td>
<td>8.0%</td>
<td>-1.1 -1.1</td>
<td>-1.1 -3.2</td>
</tr>
<tr>
<td>6</td>
<td>8.3%</td>
<td>-0.7 -1.0</td>
<td>-1.1 -3.7</td>
</tr>
<tr>
<td>7</td>
<td>8.2%</td>
<td>-1.4 -1.0</td>
<td>-0.8 -2.9</td>
</tr>
<tr>
<td>8</td>
<td>8.1%</td>
<td>-1.4 -1.0</td>
<td>-0.9 -2.9</td>
</tr>
</tbody>
</table>

Note: PIONEER 9 and PIONEER 10 were Japanese studies and PIONEER 6 was a CV safety study. * Statistically significant based on the hypothetical treatment policy; PIONEER 1: QD oral sema vs placebo in people with T2D treated with diet and exercise only; PIONEER 2: QD oral sema vs empagliflozin 25 mg in people with T2D; PIONEER 3: QD oral sema vs sitagliptin 100 mg in people with T2D; PIONEER 4: QD oral sema vs Victoza® 1.8 mg and placebo in people with T2D; PIONEER 5: QD oral sema vs placebo in people with T2D and moderate renal impairment; PIONEER 7: QD oral sema using a flexible dose adjustment based on clinical evaluation vs sitagliptin 100 mg in people with T2D; PIONEER 8: Effects of QD oral sema vs placebo in people with long duration of T2D treated with insulin ER: Extended-release; QW: once weekly; QD: once daily; oral sema: oral semaglutide; T2D: type 2 diabetes, OAD: oral anti-diabetics; CV: Cardiovascular.
STRENGTHEN TREATMENT OPTIONS
THROUGH MARKET DEVELOPMENT
AND BY OFFERING INNOVATIVE
MEDICINES AND DRIVING PATIENT
OUTCOMES

1. Obesity disease and market 50
2. Obesity market development 52
3. Innovation 53
People with obesity are at an increased risk of developing severe comorbidities that are life-threatening and costly for society.

- **Diabetes**: Increased risk of type 2 diabetes
- **CVD**: Increased risk of CVD
- **Heart failure**: Increased risk of heart failure
- **Sleep apnoea**: Increased severity of sleep apnoea
- **Osteoarthritis**: Increased risk of osteoarthritis

Only 2% of the 650 million people with obesity are treated with prescription medication.

Global healthcare cost related to obesity expected to increase by 50% by 2025:
- USD ~0.8 trillion in 2017
- USD ~1.0 trillion in 2020
- USD ~1.2 trillion in 2025

CVD: Cardiovascular disease; AOM: Anti-obesity medication, TRx SU Volume.

The figure illustrates some of the intervention points to treat obesity with prescription medication.

1. Attempt to manage weight through lifestyle modification or surgery
2. 2% of people with obesity are estimated to be treated with anti-obesity medication.

Saxenda® addresses a global unmet need for medical weight management

Global obesity prevalence

Saxenda® launched countries

Global reimbursement status

70% access in commercial channel, but due to employer opt-in, effective access is around 20%

Reimbursement in IO is predominantly out-of-pocket

NICE has recommended Saxenda® for use by NHS in select patient populations

~60% coverage by private insurance, 20% of which includes restricted/unrestricted coverage

Saxenda® reimbursed April 2020 in selected patient groups

Saxenda® now launched in 54 countries

<10%  10-19.9%  20-29.9%  >30%

NAO: North America Operations; IO: International Operations; EMEA: Europe, Middle East, Africa; RoW: Rest of World; CER: Constant exchange rates
Global obesity market share, market growth, and US volume and value market

Obesity market growth and Novo Nordisk market share

Obesity market size and growth

US obesity care market remains small at around USD 853 million

Source: IQVIA, Aug 2020, Value MAT, all countries; IQVIA Xponent MAT, May 2020 and NSP MAT, May 2020.
Making obesity a healthcare priority requires stakeholder engagement

**Addressing market development barriers**

- **Activate people with obesity to seek treatment**
  - TruthAboutWeight
  - Social media awareness campaigns

- **Engage more and stable HCP’s**
  - Medical journals and congresses
  - ReThinkObesity

- **Ensure access to care**
  - Increased quality of life for patients
  - Long-term benefits for healthcare systems

**Develop a leading portfolio of superior treatment solutions**

- Healthcare system funds obesity prevention

- Obesity recognised as a serious chronic disease

- Treatment guidelines in place

- PwO seek medical support

- Stigma is socially unacceptable

- Willingness to pay for chronic obesity care

- HCPs take action by referring or managing obesity as any other chronic disease
Across the STEP 1, 3, and 4 trials, a weight loss of 16.9% to 18.2% was reported for people treated with semaglutide 2.4 mg.

**Baseline body weight (kg)**

<table>
<thead>
<tr>
<th></th>
<th>STEP 1</th>
<th>STEP 2</th>
<th>STEP 3</th>
<th>STEP 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weight management</td>
<td>Weight management with IBT</td>
<td>Sustained weight management</td>
<td>Weight management with T2DM</td>
</tr>
<tr>
<td>105.3</td>
<td>105.8</td>
<td>From initiation to 68 weeks</td>
<td>From randomisation to 68 weeks¹</td>
<td>99.8</td>
</tr>
<tr>
<td>Sema</td>
<td>Sema + IBT</td>
<td>Sema</td>
<td>Placebo</td>
<td></td>
</tr>
<tr>
<td>-16.9*</td>
<td>-18.2*</td>
<td>-8.8*</td>
<td>-10.6*</td>
<td></td>
</tr>
</tbody>
</table>

¹The primary endpoint was measured as the change in weight from randomisation (after a 20-week run-in) to week 68.
*Statistically significant, based on the trial product estimand (secondary statistical approach): treatment effect if all people adhered to treatment and did not initiate other anti-obesity therapies.

IBT: Intensive behavioural therapy; Sema: Semaglutide; BW: Body weight; T2D: Type 2 diabetes.
In STEP 1, people treated with semaglutide had a superior weight loss of up to 16.9%.

The pivotal STEP 1 trial showed greater than 16% weight loss.

- Average age 46
- 74.1% women
- Average BMI - 37.9 kg/m²

Improvements in lipid profiles as well as C-reactive protein.

Semaglutide improved health-related quality of life as measured by SF-36 and IWQoL-lite-CT.

Data from STEP 1

Change in body weight in % depicts observed means since time of randomisation; trial product estimand.

BMI: body mass index; SF-36: Short Form (36) Health Survey; IWQoL-lite-CT: Impact of Weight on Quality of Life-Lite questionnaire.
In STEP 1, 34.8% of patients treated with semaglutide reached ≥20% weight loss and reported improved quality of life versus placebo.

**Categorical weight loss**

- 92.4% of patients treated with Sema 2.4 mg reached ≥5% weight loss.
- 74.8% reached ≥10% weight loss.
- 54.8% reached ≥15% weight loss.
- 34.8% reached ≥20% weight loss.

**Sema 2.4 mg showed a statistically significant treatment difference versus placebo in the IWQoL-Lite-CT PRO**

- **Physical function**: ETD = 9.43 [7.50 : 11.35] *
- **Physical**: ETD = 9.14 [7.31 : 10.96] *
- **Psychological**: ETD = 10.50 [8.81 : 12.19] *
- **Total**: ETD = 10.02 [8.42 : 11.62] *

* statistically significant; p-values other than physical function were not controlled for multiplicity

**PRO**: patient reported outcome; **CI**: confidence interval, **ETD**: estimated treatment difference, **IWQoL-Lite-CT**: Impact of Weight on Quality of Life-lite
The AM833 phase 2 monotherapy trial and phase 1 combination with semaglutide trial decreased weight by 10.8% and 17.1%.

**Weight loss for AM833 plus lifestyle intervention\(^1\)**

**Weight loss for AM833 and semaglutide in phase 1\(^2\)**

\(^1\) Lifestyle intervention is defined as counselling for a reduced-calorie diet and increased physical activity. Data is based on the trial product estimand: treatment effect if all people adhered to treatment and did not initiate other anti-obesity therapies.

\(^2\) Data are observed means, 20 week phase 1b trial dosing increments with semaglutide and AM833 once-weekly with a 16 week dose-escalation regimen. Data is based on the trial product estimand.
Novo Nordisk obesity pipeline supports efforts to close the treatment gap

Innovation curve

- Body weight set-point and counter regulation
- Weight loss prediction for patient groups
- Oral product
- 20-30% weight loss
- Targeted treatment solutions
- 10-15% weight loss
- Saxenda®
- Normalised weight
- Today

Novo Nordisk’s current pipeline is closing the treatment gap

- Today’s marketed treatment options
- Semaglutide 2.4 mg
- Pipeline
- Bariatric surgery

SECURE A LEADING POSITION BY
LEVERAGING FULL PORTFOLIO AND
EXPANDING INTO ADJACENT AREAS

1. Haemophilia 61
2. Growth hormone disorders 62
3. Biopharm innovation 64
Biopharm sustained growth outlook is supported by innovation and utilisation of core capabilities

Internal and external innovation to drive long-term growth

- **Bringing internal innovation** to market by pipeline progression
- **Ensuring future growth** by leveraging external innovation

Core capabilities within research and development to drive long-term growth

- **Exploring new technologies** by utilising added research platforms
- **Leveraging deep biological understanding** for future growth
Haemophilia is a rare disease with severe unmet medical needs and the market is highly competitive

Note: The inhibitor segment includes acquired haemophilia patients, patients with low titre inhibitors or with transient inhibitors, and patients on immune tolerance induction.


1 Obizur only indicated for acquired haemophilia; 2 Plasma-derived; 3 Part of the Hemlibra sales is used for treatment of haemophilia A patients in 2019

Source: Company reported sales and Evaluate
Biopharm sales growth of 4% driven by solid commercial execution with key brands being NovoSeven® and Norditropin®

NovoSeven® and Norditropin® account for 80% of Biopharm sales

Note: Company reported sales; CER: Constant exchange rates
Solid commercial execution is driving 13% Norditropin® sales growth in the first nine months of 2020

Historic reported sales for Norditropin®

Note: Company reported sales; CER: Constant exchange rates

Norditropin® value leadership maintained despite increasing competition

Device portfolio

Continue frequent launches with new indications and device upgrades

Current launches

Towards 2022

Note: IQVIA, MAT value DKK, Aug 2020

Aug 2015

Aug 2020

Novo Nordisk

Eli Lilly

Roche

Merck Kgaa

Sandoz

Other

Norditropin®

Growth at CER

DKK billion


8% 14% -22% 7% 2% 13%
Scientific excellence ensures an innovative and competitive pipeline with therapeutic solutions for severe conditions

More than 35 years of innovation

Concurative therapy
Non-invasive therapy
Concizumab
Mim8
Esperoct®
Refixia®
NovoEight®
NovoThirteen®
NovoSeven®
1986
Today
Future

Biopharm pipeline

Current phases

2018
2019
2020
2021...

Phase 3a
Concizumab HA and HB

Concizumab HAwI/HBwI

EPI01 (SCD)

Phase 1

Phase 1/2

Phase 3

Phase 2

Somapacitan GHD

Somapacitan SGA

1 The concizumab phase 3 programme was resumed in August 2020.
SCD: Sickle-cell disease; SGA: Short of gestational age; HwI: Haemophilia A or B patients with inhibitors; SGA: small for gestational age; GHD: Growth hormone deficiency
Phase 3 programme on-going investigating concizumab for haemophilia A and B irrespective of inhibitor status

Phase 3 trials with data expected first half of 2021

- Exp7 and Exp8: On-demand treatment
- Exp7 and Exp8: Phase 2 patients on concizumab prophylaxis
- Exp7 (with inhibitors): Prophylaxis with bypassing or on-demand
- Exp8 (without inhibitors): Prophylaxis with factor replacement or on-demand

- Arm 1: No prophylaxis
- Arm 2: Concizumab prophylaxis
- Arm 3: Concizumab prophylaxis
- Arm 4: Concizumab prophylaxis

Extension with concizumab prophylaxis

Main part: 24 weeks treatment
Extension: Up to 136 weeks treatment

Characteristics and next steps

- High affinity, humanised monoclonal IgG4 antibody
- First-in-class anti-TFPI boosting the initiation phase to restore haemostasis
- Delivered once-daily in a convenient Flextouch® pen
- Safe and well-tolerated in phase 2 and efficacy comparable to factor replacement
Next-generation FVIII mimetic, Mim8, is a bispecific antibody for SC prophylaxis treatment in people with haemophilia A

**Thrombin generation assay**

HA plasma + FVIII

**Thromboelastography**

Normal control

**Characteristics**

- Strong activity at site of bleeding
- Minimised target binding in circulation
- Delivered in an innovative device

**Phase 1/2 trial**

- Initiated in January 2020
- Phase 1 is a single ascending dose part with 40 treated people
- Phase 2 is a multiple ascending dose part with 32 treated people
- Trial investigates safety, tolerability, PK/PD of single SC injections

Mim8 potently stimulates FX activation resulting in efficacious haemostasis *in vitro* and *in vivo*

Mim8 effectively stops severe bleeds in mouse models

---

1 Sequence-identical-analogue (SIA) of the FVIII-mimicking bispecific antibody emicizumab; PK: pharmacokinetics; PD: pharmacodynamics; SC: subcutaneous
Once-weekly, biodegradable somapacitan has entered phase 3 for GHD and is approved in the US for AGHD indication

Phase 2 trial in GHD with 1-year efficacy and safety

![Graph showing mean height velocity (cm/year) for somapacitan and Norditropin®](image)

- Somapacitan:
  - Doses: 0.04, 0.08, 0.16 mg/kg/week
  - Mean height velocity: 7.8, 9.7, 11.5 cm/year
- Norditropin®:
  - Dose: 0.034 mg/day
  - Mean height velocity: 10.0

Data are mean height velocity (cm/year) ± SD at week (wk) 52. Doses are mg/kg/time. * Denotes statistical significance difference compared to once-daily Norditropin®. GHD: Growth hormone deficiency; AGHD: Adult-onset growth hormone deficiency; FDA: Food and Drug Administration; EMA: European Medicines Agency; 1 Value was 9.8 for the full analysis set. Value of 10.0 is from a post-hoc analysis that excluded 4 visits of one patient who discontinued prematurely at week 6.

**Next steps**

- **Somapacitan in children (GHD)**
  - Phase 3 trial (REAL 4) has been initiated
  - Somapacitan dose 0.16 mg/kg/week

- **Somapacitan in children (SGA)**
  - Phase 2 trial (REAL 5) has been initiated

- **Somapacitan in adults (AGHD)**
  - Has been approved in the US under tradename Sogroya®
  - Has been submitted in the EU and Japan
Novo Nordisk and bluebird bio join forces in next-generation genome editing for children and adult patients with haemophilia A

**Potential curative treatment in haemophilia A**

- mRNA-based megaTAL™-driven gene editing
- **Highly specific and efficient** way to silence, edit or insert genetic components.
- Allows for **gene editing in all age groups**

**bluebird bio/Novo Nordisk’s joint approach**

- **megaTAL™**: Proprietary, patented technology, broad IP
- Correcting FVIII-clotting factor deficiency
- Potential **lifelong** effect
- Possibility to explore additional therapeutic targets

---

AAV: Adenovirus vector; BDD: B-domain deleted; hFVIII: human factor VIII; LNP: Lipid nanoparticle; mRNA: messenger ribonucleic acid; TAL: transcription activator-like.
### ESTABLISH PRESENCE BY BUILDING COMPETITIVE PIPELINE AND SCIENTIFIC LEADERSHIP

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The unmet needs</td>
</tr>
<tr>
<td>2.</td>
<td>Cardiovascular disease</td>
</tr>
<tr>
<td>3.</td>
<td>Non-alcoholic steatohepatitis</td>
</tr>
<tr>
<td>4.</td>
<td>Stem cells</td>
</tr>
</tbody>
</table>

**Other serious chronic diseases**

Nadja Sadi  
Nadia lives with NASH  
Denmark
Novo Nordisk is expanding into other serious chronic diseases

Serious chronic diseases are often associated with diabetes and obesity

- 70% of people with diabetes die from atherosclerotic CVD
- 40% of people hospitalised for heart failure have diabetes

New therapeutic areas represent patient populations with high unmet medical needs

<table>
<thead>
<tr>
<th>Condition</th>
<th>Estimated patients</th>
<th>Number of related deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVD</td>
<td>~420 million</td>
<td>~20 million annually</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Condition</th>
<th>Estimated patients</th>
<th>Diagnosis rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASH</td>
<td>~15-40 million¹</td>
<td>~20%²</td>
</tr>
<tr>
<td>CKD</td>
<td>~200 million</td>
<td>~20%</td>
</tr>
</tbody>
</table>

¹ Internal forecast comprising the USA, Europe and Japan; ² Diagnosis rate is considered a major uncertainty to the forecast

CVD: Cardiovascular disease; NASH: Non-alcoholic Steatohepatitis; CKD: Chronic kidney disease

Source:
- Abera SF et al. Global, Regional, and National Burden of Cardiovascular Diseases for 10 Causes, 1990 to 2015, 2017; Heart Disease and Stroke Statistics, American Heart Association, 2017; Williams CD et al. Prevalence of nonalcoholic fatty liver disease and nonalcoholic steatohepatitis among a largely middle-aged population utilizing ultrasound and liver biopsy, 2011; Addressing the global burden of chronic kidney disease through clinical and translational research, 2014
Novo Nordisk’s ambition within cardiovascular disease

**In-licensing/acquisition of mid-stage assets**

**Accelerate internal pipeline**

Subcutaneous PCSK9i – successful phase 1 results

**At least one product launched between 2024-2028** targeting atherosclerotic cardiovascular disease or heart failure with a highly innovative, first to market product serving a significant unmet need in a large patient population.
Acquisition of Corvidia Therapeutics supports Novo Nordisk’s ambition within cardiovascular disease

**Data from a phase 2a trial using ziltivekimab in CKD stage 5 patients with inflammation**

<table>
<thead>
<tr>
<th></th>
<th>Placebo</th>
<th>Ziltivekimab</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=61</td>
<td>12</td>
<td>16 16 17</td>
</tr>
<tr>
<td>2 mg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 mg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 mg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of patients</td>
<td>14.3</td>
<td>43.8 60.0 90.9*</td>
</tr>
<tr>
<td>hsCRP&lt;2.0 mg/L, Week 12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Conclusions:**

- Ziltivekimab effectively reduces C-reactive protein (CRP) in patients with CKD on dialysis
- Ziltivekimab substantially reduced markers of inflammation with a trend towards improving NT-proBNP without adversely affecting lipoprotein lipids, neutrophils or platelets

**Trial design of the phase 2b (RESCUE)**

- 7.5 mg Q4W (66 patients)
- 15 mg Q4W (66 patients)
- 30 mg Q4W (66 patients)
- Placebo Q4W (66 patients)

**Primary endpoint**

- Reduction of inflammation measured as reduction in C-reactive protein

**Purpose/timing**

- Determine a dose for a potential phase 3 CVOT

Source: https://www.ahajournals.org/doi/10.1161/circ.140.suppl_1.13727

hsCRP: High sensitivity C-reactive protein; CKD: chronic kidney disease; NT-proBNP: N-terminal pro hormone BNP; Q4W: intravenously every 4 weeks; CVOT: cardiovascular outcomes trial
Semaglutide showed significant improvements in NASH resolution and could play a role in preventing disease progression

- NASH resolution without worsening of fibrosis is one of two critical endpoints defined by the FDA and EMA
- For prevention of NASH disease progression, NASH resolution could be the more relevant endpoint
- To date, semaglutide NASH results are arguably the most convincing NASH resolution data shown
- Semaglutide in NASH was granted Breakthrough Therapy designation in the US
- Phase 3 programme expected to begin in 2021

Semaglutide showed resolution of NASH with no worsening of fibrosis versus placebo in the phase 2 trial

<table>
<thead>
<tr>
<th>Proportion of patients</th>
<th>Placebo</th>
<th>0.1 mg</th>
<th>0.2 mg</th>
<th>0.4 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>22.9%</td>
<td>47.3% *</td>
<td>46.9% *</td>
<td>66.7% *</td>
</tr>
</tbody>
</table>

*Statistically significant at 72 weeks (p<0.05 vs placebo). Based on a complete case analysis using people with an evaluable biopsy at end of trial

1 Analysis included patients with fibrosis stage 1, 2 or 3 at baseline

2 FDA guidance on developing treatment for NASH: “Noncirrhotic Non-alcoholic Steatohepatitis With Liver Fibrosis: Developing Drugs for Treatment Guidance for Industry”. EMA guidance on developing treatment for NASH: “Reflection paper on regulatory requirements for the development of medicinal products for chronic non-infectious liver diseases (PBC, PSC, NASH)”
The stem cell platform has the potential to solve unmet needs for people with serious chronic diseases

**STEM CELL TECHNOLOGY**

- Blastocyst
- Pluripotent embryonic stem cells
- Cell bank of undifferentiated stem cells
- Differentiate stem cells to specific cell types
- Treatment centres
- Patient transplanted at treatment centres

**COMPLEMENTARY COMPETENCIES**

- GMP-grade production capability in US facility utilising Novo Nordisk’s core CMC capabilities
- IP positions on differentiation protocols
- Ethical stem cell practices
- Academic collaborations with stem cell technology experts

- **Parkinson’s disease**
  - Collaboration with Lund University and partnership with Biolamina
- **Type 1 diabetes**
  - Encapsulation device in collaboration with universities
- **Chronic kidney disease**
  - Partnership with Mayo Clinic
- **Dry age-related macular degeneration**
  - Partnership with Biolamina
- **Chronic heart failure**
  - Partnership with Biolamina
International Operations

1. International Operations growth 76
2. International Operations at a glance 78
3. EMEA 83
4. Region China 88
5. RoW 92
Growth momentum has increased driven by demographics and the Market Fit approach

International Operations is diverse and covers 190 markets

430M live with diabetes

570M live with obesity

IO's share of revenue 9M 2020

NAO 47% 53% IO

Historic growth has been in the range of 4-6%

Growth rate range

2013 9M 2020

12%

14%

12%

8%

6%

4%

2%

Growth momentum has benefitted from the Market Fit approach

IO's share of revenue 9M 2020

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8%

6%

4%

2%

Growth momentum has benefitted from the Market Fit approach

Investor presentation First nine months of 2020

76

570M live with obesity

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4%

2%

Growth momentum has benefitted from the Market Fit approach

Investor presentation First nine months of 2020

76

570M live with obesity

IO's share of revenue 9M 2020

NAO 47% 53% IO

Historic growth has been in the range of 4-6%

Growth rate range

2013 9M 2020

12%

14%

12%

10%

8%

6%

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14%

12%

10%

8%

6%

4%

2%
The medium-term growth is expected to be 6-10% annually driven by securing the base and three future growth enablers.

Sales have increased by 5% since 2013, while medium-term growth is expected to be 6-10%.

Secure the sales base by leveraging biopharm and portfolio of short-acting and premix insulin.

Drive additional growth through three future growth enablers:
- Establish basal market leadership
- Drive GLP-1 market growth
- Expand the obesity market

Future growth drivers
Base sales with mature therapy areas
International Operations at a glance


Diabetes market by value and Novo Nordisk market share

Novo Nordisk reported sales

<table>
<thead>
<tr>
<th>First nine months 2020</th>
<th>Sales (mDKK)</th>
<th>Growth 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-acting insulin 3</td>
<td>7,590</td>
<td>14%</td>
</tr>
<tr>
<td>Premix insulin 4</td>
<td>7,799</td>
<td>8%</td>
</tr>
<tr>
<td>Fast-acting insulin 5</td>
<td>8,170</td>
<td>8%</td>
</tr>
<tr>
<td>Human insulin</td>
<td>5,872</td>
<td>8%</td>
</tr>
<tr>
<td>Total insulin</td>
<td>29,431</td>
<td>10%</td>
</tr>
<tr>
<td>GLP-1 6</td>
<td>8,087</td>
<td>37%</td>
</tr>
<tr>
<td>Other Diabetes care 7</td>
<td>2,250</td>
<td>(12%)</td>
</tr>
<tr>
<td>Diabetes care</td>
<td>39,768</td>
<td>13%</td>
</tr>
<tr>
<td>Obesity care (Saxenda 8)</td>
<td>1,611</td>
<td>8%</td>
</tr>
<tr>
<td>Diabetes &amp; Obesity care</td>
<td>41,379</td>
<td>12%</td>
</tr>
<tr>
<td>Biopharm 8</td>
<td>9,020</td>
<td>8%</td>
</tr>
<tr>
<td>Total</td>
<td>50,399</td>
<td>12%</td>
</tr>
</tbody>
</table>

1 CAGR calculated for 5-year period; Competitor insulin value market shares, as of Aug 2020: Novo Nordisk 49%, Sanofi 29% and Eli Lilly 15%; Competitor GLP-1 value market shares, as of Aug 2020: Novo Nordisk 52%, Eli Lilly 43% and AstraZeneca 5%; OAD: Oral anti-diabetic; MS: Market share; Source: IQVIA MAT, Aug 2020 value figures

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Diabetes market share and market growth in International Operations

**Diabetes market growth and Novo Nordisk market share**

- **Aug 2017**
  - NN market share: 13%
  - Market growth: 23%
  - NN share of growth: 12%
- **Aug 2020**
  - NN market share: 30%
  - Market growth: 30%
  - NN share of growth: 22.7%

**Diabetes market size and growth**

- **Aug 2019**
  - Novo Nordisk: 22.0%
  - BI: 4
  - Others: 7
  - Total: 171
- **Aug 2020**
  - Novo Nordisk: ~9%
  - BI: 3
  - Others: 7
  - Total: 22.7%

Source: IQVIA, Aug 2020, Value, MAT, all countries; NN: Novo Nordisk; BI: Boehringer Ingelheim
Insulin market size and volume share of growth and market share in International Operations

### Insulin market share and market size (DKK billion)

- **Total**: 49% (59)
- **Long-Acting**: 35% (27)
- **Fast-Acting**: 59% (15)
- **Premix**: 75% (8)
- **Human**: 49% (8)

### Market growth and Δ Market share

- **Total**: 5% (+0.8%)
- **Long-Acting**: 7% (+1.2%)
- **Fast-Acting**: 6% (+0.9%)
- **Premix**: 4% (+1.4%)
- **Human**: -1.1% (-0.3%)

### Insulin volume: Share of growth and market share

- **NN market share**: Aug 2017 = 66%, Aug 2020 = 50%
- **NN share of growth**: Aug 2017 = 0%, Aug 2020 = 4%
- **Market growth**: Aug 2017 = 8%, Aug 2020 = 2%
- **NN growth**: Aug 2017 = 0%, Aug 2020 = 0%

Source: IQVIA, Aug 2020, LHS graph - Value, RHS Graph - Volume, MAT, all countries; NN: Novo Nordisk
GLP-1 market share and market growth

GLP-1 market growth and Novo Nordisk market share

Source: IQVIA, Aug 2020, Value, MAT, all countries; NN: Novo Nordisk

GLP-1 market size and growth

Source: IQVIA, Aug 2020, Value, MAT, all countries; NN: Novo Nordisk
Obesity market share and market growth in International Operations

Source: IQVIA, Aug 2020, Value MAT, all countries
EMEA at a glance

Diabetes trend

Population with diabetes
Diabetes growth rate

Diabetes market by value and Novo Nordisk market share

Novo Nordisk reported sales

<table>
<thead>
<tr>
<th>First nine months of 2020</th>
<th>Sales (mDKK)</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-acting insulin⁶</td>
<td>4,916</td>
<td>12%</td>
</tr>
<tr>
<td>Premix insulin⁴</td>
<td>2,275</td>
<td>(1%)</td>
</tr>
<tr>
<td>Fast-acting insulin⁵</td>
<td>4,968</td>
<td>6%</td>
</tr>
<tr>
<td>Human insulin</td>
<td>1,823</td>
<td>0%</td>
</tr>
<tr>
<td>Total insulin</td>
<td>13,982</td>
<td>6%</td>
</tr>
<tr>
<td>GLP-1</td>
<td>5,547</td>
<td>35%</td>
</tr>
<tr>
<td>Other Diabetes care⁷</td>
<td>547</td>
<td>(31%)</td>
</tr>
<tr>
<td>Diabetes care</td>
<td>20,076</td>
<td>11%</td>
</tr>
<tr>
<td>Obesity care</td>
<td>834</td>
<td>8%</td>
</tr>
<tr>
<td>Diabetes &amp; Obesity care</td>
<td>20,910</td>
<td>11%</td>
</tr>
<tr>
<td>Biopharm</td>
<td>5,249</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>26,159</td>
<td>11%</td>
</tr>
</tbody>
</table>

1 CAGR calculated for 5-year period; Competitor insulin value market shares, as of Aug 2020: Novo Nordisk 47%, Sanofi 33% and Eli Lilly 16%; Competitor GLP-1 value market shares, as of Aug 2020: Novo Nordisk 54%, Eli Lilly 41% and AstraZeneca 5%; OAD: Oral anti-diabetic; MS: Market share; Source: IQVIA MAT, Aug 2020 value figures

2 At constant exchange rates; 3 Comprises Tresiba®, Xultophy® and Levemir®; 4 Comprises Ryzodeg® and NovoMix®; 5 Comprises Fiasp® and NovoRapid®; 6 Comprises Victoza® and Ozempic®; 7 Comprises NovoNorm® and needles; 8 Comprises primarily NovoSeven®, NovoEight®, NovoThirteen®, Refixia®, Norditropin®, Vagifem® and ActiVelle®
Diabetes market share and market growth in EMEA

Diabetes market growth and Novo Nordisk market share

Diabetes market size and growth

Source: IQVIA, Aug 2020, Value, MAT; NN: Novo Nordisk; BI: Boehringer Ingelheim

83
Aug 2019
3
Aug 2020
2
3
Others
27.4%

26.8%

~12%
~9%
Insulin market size and volume market share in EMEA

**Insulin market share and market size (DKK billion)**

<table>
<thead>
<tr>
<th>Type</th>
<th>Market Share (%)</th>
<th>Market Size (DKK billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>47%</td>
<td>37</td>
</tr>
<tr>
<td>Long-acting</td>
<td>38%</td>
<td>18</td>
</tr>
<tr>
<td>Fast-acting</td>
<td>56%</td>
<td>11</td>
</tr>
</tbody>
</table>

**Insulin volume: market share**

- **NN market share**: 47%
- **Market growth (right axis)**
- **Market share**
  - Total: 3% (+1.0%)
  - Long-acting: 6% (+1.7%)
  - Fast-acting: 4% (+0.9%)
  - Premix: -0.6% (+1.6%)
  - Human: -8% (-0.7%)

Source: IQVIA, Aug 2020, LHS graph - Value, RHS Graph - Volume, MAT, Europe, Middle East & Africa, Share of growth not depicted due to too high numbers; NN: Novo Nordisk
GLP-1 market share and market growth in EMEA

Source: IQVIA, Aug 2020, Value, MAT, Europe, Middle East & Africa; NN: Novo Nordisk
Obesity market share and market growth in EMEA

Obesity market growth and Novo Nordisk market share

Obesity market size and growth

Source: IQVIA, Aug 2020, Value, MAT, Europe, Middle East & Africa; NN: Novo Nordisk
# Region China at a glance

**Diabetes trend**

<table>
<thead>
<tr>
<th>Year</th>
<th>Population with diabetes (Million)</th>
<th>Diabetes growth rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>163</td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td>197</td>
<td>8%</td>
</tr>
<tr>
<td>2045</td>
<td>212</td>
<td>21%</td>
</tr>
</tbody>
</table>

**Diabetes market by value and Novo Nordisk market share**

<table>
<thead>
<tr>
<th>Year</th>
<th>DKK billion</th>
<th>Novo Nordisk market share (%)</th>
<th>Growt (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 2015</td>
<td>0</td>
<td>GLP-1 42%</td>
<td></td>
</tr>
<tr>
<td>Aug 2020</td>
<td>0</td>
<td>Insulin 9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OAD 10%</td>
<td></td>
</tr>
</tbody>
</table>

**Novo Nordisk reported sales**

<table>
<thead>
<tr>
<th></th>
<th>First nine months 2020</th>
<th>Sales (mDKK)</th>
<th>Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-acting insulin</td>
<td>1,120</td>
<td>39%</td>
<td></td>
</tr>
<tr>
<td>Premix insulin</td>
<td>3,662</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Total insulin</td>
<td>8,523</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Biopharm</td>
<td>304</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10,836</td>
<td>12%</td>
<td></td>
</tr>
</tbody>
</table>

**Competitor insulin value market shares, as of Aug 2020:**
- Novo Nordisk 47%
- Sanofi 19%
- Gan & Lee 13%
- Eli Lilly 10%

**Competitor GLP-1 value market shares, as of Aug 2020:**
- Novo Nordisk 92%
- AstraZeneca 3%

OAD: Oral anti-diabetic; MS: Market share; Source: IQVIA MAT, Aug 2020 value figures

1 CAGR calculated for last 5-year period

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Diabetes market share and market growth in Region China

Diabetes market growth and Novo Nordisk market share

Source: IQVIA, Aug 2020, Value, MAT, NN: Novo Nordisk
Insulin market size and volume share of growth and market share in Region China

Insulin market share and market size (DKK billion)

- **Total**: 11
  - **Long-acting**: 47% (17%)
  - **Fast-acting**: 80% (1%)
  - **Premix**: 77% (3%)
  - **Human**: 44% (2%)

- **Market growth**
  - Total: 13%
  - Long-acting: 19%
  - Fast-acting: 17%
  - Premix: 11%
  - Human: 5%

- **Δ Market share**
  - Total: -0.3%
  - Long-acting: +1.9%
  - Fast-acting: +0.3%
  - Premix: +0.2%
  - Human: -2.5%

Source: IQVIA, Aug 2020, LHS graph - Value, RHS Graph - Volume, MAT; NN: Novo Nordisk

Insulin volume: market share

- **NN market share**
  - August 2017: 50%
  - August 2020: 37%

- **NN share of growth**
  - August 2017: 4%
  - August 2020: 20%

- **Market growth (right axis)**
  - August 2017: 30%
  - August 2020: 40%

- **NN growth (right axis)**
  - August 2017: 0%
  - August 2020: 0%

Source: IQVIA, Aug 2020, LHS graph - Value, RHS Graph - Volume, MAT; NN: Novo Nordisk
GLP-1 market share and market growth in Region China

Source: IQVIA, Aug 2020, Value, MAT; Share of growth not depicted due to too high numbers; NN: Novo Nordisk
Rest of World at a glance

Diabetes trend

- Population with diabetes
- Diabetes growth rate

2019: 119
2030: 155
2045: 202

30% growth by 2045

Diabetes market by value and Novo Nordisk market share

- DKK billion
- GLP-1 MS
- Insulin MS
- OAD MS

GLP-1: 32%
Insulin: 2%
OAD: 7%

Novo Nordisk reported sales

<table>
<thead>
<tr>
<th>First nine months 2020</th>
<th>Sales (mDKK)</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-acting insulin</td>
<td>1,554</td>
<td>8%</td>
</tr>
<tr>
<td>Premix insulin</td>
<td>1,862</td>
<td>11%</td>
</tr>
<tr>
<td>Fast-acting insulin</td>
<td>1,639</td>
<td>5%</td>
</tr>
<tr>
<td>Human insulin</td>
<td>1,871</td>
<td>25%</td>
</tr>
<tr>
<td>Total insulin</td>
<td>6,926</td>
<td>12%</td>
</tr>
<tr>
<td>GLP-1</td>
<td>1,741</td>
<td>51%</td>
</tr>
<tr>
<td>Other Diabetes care</td>
<td>499</td>
<td>(2%)</td>
</tr>
<tr>
<td>Diabetes care</td>
<td>9,166</td>
<td>17%</td>
</tr>
<tr>
<td>Obesity care</td>
<td>771</td>
<td>7%</td>
</tr>
<tr>
<td>Diabetes &amp; Obesity care</td>
<td>9,937</td>
<td>16%</td>
</tr>
<tr>
<td>Biopharm</td>
<td>3,467</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>13,404</td>
<td>13%</td>
</tr>
</tbody>
</table>

1 CAGR calculated for last 5-year period
2 At constant exchange rates
3 Comprises Tresiba®, Xultophy® and Levemir®
4 Comprises NovoMix® and Ryzodeg®
5 Comprises NovoRapid®
6 Comprises Victoza® and Ozempic®
7 Comprises NovoNorm® and needles
8 Comprises primarily NovoSeven®, NovoEight® and Norditropin®

Diabetes trend estimates based on the following International Diabetes Foundation defined regions: South & Central America, Southeast Asia

Diabetes growth rate: 30%
Diabetes market share and market growth in Rest of World

Diabetes market growth and Novo Nordisk market share

Diabetes market size and growth

Source: IQVIA, Aug 2020, Value, MAT, Rest of world; NN: Novo Nordisk BI: Boehringer Ingelheim
Insulin market size and volume market share in Rest of World

Insulin market share and market size (DKK billion)

- **Total**: 56%
  - Market growth: 5%
  - Δ Market share: +1.2%

- **Fast-acting**: 38%
  - Market share: 4%
  - Δ Market share: +0.6%

- **Long-acting**: 60%
  - Market share: 6%
  - Δ Market share: +0.7%

- **Premix**: 80%
  - Market share: 5%
  - Δ Market share: +2.1%

- **Human**: 63%
  - Market share: 4%
  - Δ Market share: 1.6%

Source: IQVIA, Aug 2020, LHS graph - Value, RHS Graph - Volume, MAT; Share of growth not depicted due to too high numbers; NN: Novo Nordisk
GLP-1 market share and market growth in Rest of World

Source: IQVIA, Aug 2020, Value, MAT; NN: Novo Nordisk
Obesity market share and market growth in Rest of World

Obesity market growth and Novo Nordisk market share

Obesity market size and growth

Source: IQVIA, Aug 2020, Value, MAT; NN: Novo Nordisk
North America Operations
Innovation drives largest transition in the history of Novo Nordisk USA, turning around 70% of sales in just seven years

Directional growth drivers and catalysts

**GLP-1**
- Ozempic® launch
- Rybelsus® launch
- Victoza® LoE

**Obesity**
- Semaglutide obesity launch
- Saxenda® LoE

**Insulin**
- Continued price pressure
- Biosimilar competition

**Biopharm**
- Competitive pressure
- New product launches

Relative sales composition – 47% transformation complete

1 Modern insulin, human insulin, Prandin®, devices and needles; 2 Ozempic® and Rybelsus®; 3 Tresiba®, Xultophy®, Fiasp® and follow-on brand insulin LoE: Loss of exclusivity
US insulin net prices have declined in recent years, yet some patients still struggle with affordability

- **Follow-on brand** fast-acting (Novolog®) and premix insulin (Novolog® Mix) with 50% list price discount vs. branded versions
- **My$99Insulin** 30-day supply of a combination of Novo Nordisk insulin products (up to 3 vials or 2 packs of pens) for USD 99
- **Patient Assistance Program** free diabetes medication to people in need, annual income <400% above government defined poverty. Program expanded during COVID-19 outbreak if job loss and limited coverage
- **Human insulin** for about USD25/vial at national pharmacies, including Walmart and CVS
- **Immediate Supply** a short-term, immediate-need program offering free insulin for those at risk of rationing while working to identify a longer-term solution
- **Co-pay Savings Cards** providing USD ~250 million in assistance in 2019

---

**The US population by health insurance coverage**

- **Private insurance schemes**
- **Uninsured**
- **Government insurance schemes**

- **333 million people**

**List price and net price development for NovoLog® vial**

- **List price**
- **Net price**

**Novo Nordisk insulin affordability offerings in the US**

Source: Census.gov; Congressional Budget Office Health Insurance Coverage 2016-2026; Medicare Enrollment Dashboard; CMS Health Insurance Enrollment Projection 2015-2025; Medicaid and CHIP Enrollment Report Oct 2017; CMS Insurance Marketplace Fact sheet 2017; CDC.gov
US health insurance is dominated by few large commercial payers with slow expansion of public insurance coverage

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

- **Managed Care**: 45% (2017), 44% (2020)
- **Medicare**: 23% (2017), 22% (2020)
- **Medicaid**: 18% (2017), 18% (2020)
- **Public exchanges**: 9% (2017), 8% (2020)
- **Uninsured**: 4% (2017), 3% (2020)
- **Public exchanges**: 4% (2017), 3% (2020)

In 2018, PBM covered 288 million lives and the market has consolidated

- **Express Scripts**: 28%
- **CVS Caremark**: 31%
- **Humana**: 5%
- **MedImpact**: 3%
- **Prime**: 3%
- **OptumRx**: 22%
- **All other PBMs**: 3%

1. 2017 data reflect historical data through Oct 2017
2. Managed care population is slightly underestimated as only population under the age 65 is captured to avoid double counting with those eligible for Medicare.

Source: Census.gov; Congressional Budget Office Health Insurance Coverage 2016-2026; Medicare Enrollment Dashboard; CMS Health Insurance Enrollment Projection 2015-2025; Medicaid and CHIP Enrollment Report Oct 2017; CMS Insurance Marketplace Fact Sheet 2017; CDC.gov

**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.

Sources: Cleveland Research
The US healthcare system is complex and rebates paid by Novo Nordisk have increased significantly over the years.

**Illustrative example of the US healthcare system**

- Product flow
- Payment flow
- Rebates/discounts flow

**Development of Novo Nordisk rebates and net sales in the USA**

- US net sales
- US rebates
- US rebates, % of gross sales (RHS)

Note: Based on reported sales
RHS: Right hand side

Percent of gross sales

DKK billion

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>US net sales</td>
<td>100</td>
<td>120</td>
<td>140</td>
<td>160</td>
<td>180</td>
<td>200</td>
<td>220</td>
<td>240</td>
</tr>
<tr>
<td>US rebates</td>
<td>0</td>
<td>20</td>
<td>40</td>
<td>60</td>
<td>80</td>
<td>100</td>
<td>120</td>
<td>140</td>
</tr>
<tr>
<td>US rebates, % of gross sales (RHS)</td>
<td>0%</td>
<td>10%</td>
<td>20%</td>
<td>30%</td>
<td>40%</td>
<td>50%</td>
<td>60%</td>
<td>70%</td>
</tr>
</tbody>
</table>
North America Operations at a glance

### Diabetes trend in population

<table>
<thead>
<tr>
<th>Year</th>
<th>Population with diabetes</th>
<th>Diabetes growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>48</td>
<td>18%</td>
</tr>
<tr>
<td>2030</td>
<td>56</td>
<td>13%</td>
</tr>
<tr>
<td>2045</td>
<td>63</td>
<td></td>
</tr>
</tbody>
</table>

### Diabetes market by value and Novo Nordisk market share

<table>
<thead>
<tr>
<th>Year</th>
<th>GLP-1 MS</th>
<th>Insulin MS</th>
<th>OAD MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 2015</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug 2020</td>
<td>39%</td>
<td>6%</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Novo Nordisk reported sales**

<table>
<thead>
<tr>
<th>First nine months 2020</th>
<th>Sales (mDKK)</th>
<th>Growth¹</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Long-acting insulin</strong></td>
<td>5,836</td>
<td>(34%)</td>
</tr>
<tr>
<td><strong>Premix insulin</strong></td>
<td>421</td>
<td>(22%)</td>
</tr>
<tr>
<td><strong>Fast-acting insulin</strong></td>
<td>5,912</td>
<td>(11%)</td>
</tr>
<tr>
<td><strong>Human insulin</strong></td>
<td>1,323</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Total insulin</strong></td>
<td>13,492</td>
<td>(22%)</td>
</tr>
<tr>
<td><strong>GLP-1⁶</strong></td>
<td>21,964</td>
<td>27%</td>
</tr>
<tr>
<td><strong>Other Diabetes care⁷</strong></td>
<td>806</td>
<td>31%</td>
</tr>
<tr>
<td><strong>Diabetes care</strong></td>
<td>36,262</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Obesity care</strong></td>
<td>2,612</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Diabetes &amp; Obesity care</strong></td>
<td>38,874</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Biopharm</strong>⁸</td>
<td>5,535</td>
<td>(2%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>44,409</td>
<td>2%</td>
</tr>
</tbody>
</table>

¹ CAGR calculated for 5-year period
² At constant exchange rates
³ Comprises Tresiba®, Xultophy® and Levevirm®
⁴ Comprises NovoMix®
⁵ Comprises Victoza® and Ozempic®
⁶ Comprises NovoNorm® and needles
⁷ Comprises primarily NovoSeven®, NovoEight®, NovoThrirteen®, Refixia®, Norditropin®, Vagifem® and Activelle®

INTERNATIONAL DIABETES FEDERATION: DIABETES ATLAS 1ST EDITION 2000 AND DIABETES ATLAS 9TH EDITION 2019

**Investor presentation**

First nine months of 2020

18%

13%
Diabetes market share and market growth in North America Operations

**Diabetes market growth and Novo Nordisk market share**

Source: IQVIA, Aug 2020, value, MAT; NN: Novo Nordisk
Novo Nordisk volume market shares in the three insulin segments

**USA long-acting insulin**

- CAGR volume: 1.6%
- MI penetration: 67.5%

**USA premix insulin**

- CAGR volume: (6.9%)
- MI penetration: 48.9%

**USA fast-acting insulin**

- CAGR volume: 2.2%
- MI penetration: 84.2%

**Note:**
- CAGR for 5-year period.
- Includes new-generation insulin.
- tMU: Thousand mega units.

**Source:** IQVIA monthly MAT, Aug 2020 volume figures.

**USA long-acting insulin**

- Segment volume
- Levemir®
- Tresiba®
- Combined

**USA premix insulin**

- Segment volume
- NovoLog® Mix share 70/30

**USA fast-acting insulin**

- Segment volume
- NovoRapid®
- Fiasp®
- Combined

---

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

**Note:** The USA trend data reflect changes to IQVIA data collection coverage and methodology as of January 2012. Modern insulin (MI) penetration is of total segment, i.e. including human insulin.

**Source:** IQVIA monthly MAT, Aug 2020 volume figures.

**NN:** Novo Nordisk.
Insulin market size and volume market share in North America Operations

Insulin market share and market size (DKK billion)

<table>
<thead>
<tr>
<th>Type</th>
<th>Share</th>
<th>Market Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>43%</td>
<td>210</td>
</tr>
<tr>
<td>Long-acting</td>
<td>39%</td>
<td>106</td>
</tr>
<tr>
<td>Fast-acting</td>
<td>51%</td>
<td>77</td>
</tr>
<tr>
<td>Premix</td>
<td>58%</td>
<td>10</td>
</tr>
<tr>
<td>Human</td>
<td>29%</td>
<td>16</td>
</tr>
</tbody>
</table>

Market growth & Δ Market share

- Total: +1% (+0.1%)
- Long-acting: +3% (-0.2%)
- Fast-acting: +1.3% (-0.8%)
- Premix: -9% (-0.8%)
- Human: +2% (-0.9%)

Insulin volume: market share

Note: Insulin market numbers do not reflect rebates. See slide 97.
Source: IQVIA, Aug 2020, LHS graph - Value, RHS Graph - Volume, MAT, all countries. Share of growth not depicted due to too high numbers; NN: Novo Nordisk.
GLP-1 market share and market growth in North America Operations

Source: IQVIA, Aug 2020, value, MAT; NN: Novo Nordisk
Obesity market share and market growth in North America Operations

Obesity market growth and Novo Nordisk market share

Source: IQVIA, Aug 2020, value, MAT, all countries; Share of growth not depicted due to too high numbers; NN: Novo Nordisk
FINANCIALS

1. Profit and loss, capital allocation 109
2. Currencies 114
3. Ownership structure 116
Solid sales growth driven by Diabetes and Obesity care

**Reported annual sales 2015-2019**

- **CAGR** for 5-year period: 2.5%

Financial focus:
- Focus on driving solid sales growth
- Gross margin to remain broadly stable
- Over time, Research & Development cost ratio to gradually increase
- Over time, Sales & Distribution cost ratio to gradually decline
- Administration cost ratio to decline

1 CAGR for 5-year period
Solid operating profit growth driven by Diabetes care

Operating profit

Operating profit split per franchise

*Adjusted for the partial divestment of NNIT A/S and inflammatory out-licensing in 2015; CER: Constant exchange rates
Higher profitability in the biopharm segment driven by lower S&D costs

Diabetes and Obesity care P&L – full year 2019

P&L: Profit and Loss; COGS: Cost of goods sold; OOI: Other operating income; OP: Operating profit; S&D: Sales and distribution costs; R&D: Research and development costs; Admin: Administrative costs
Stable COGS level as percentage of sales and decreasing CAPEX level

**Cost of goods sold**
- DKK billion (2015-2019)
- COGS: Cost of goods sold
- COGS as % of sales

**Capital expenditure**
- DKK billion (2016-2020)
- CAPEX: Capital expenditure
- CAPEX as % of sales (RHS)
- Expected CAPEX

COGS: Cost of goods sold; CAPEX: Capital expenditure; RHS: Right hand side
Cash return to shareholders in 2020

Annual cash return to shareholders

Cash return priorities

- Share repurchase programme of up to DKK 17 billion to be executed during 12 months, starting 5 February 2020
- Total programme may be reduced in size if significant bolt-on acquisition opportunities arise during 2020
- For 2019, the total dividend increased 2.5% to DKK 8.35 per share of DKK 0.20 (including interim dividend of DKK 3.00 per share paid in August 2019), resulting in a total pay-out ratio of 50.5%
- For 2020, the interim dividend of DKK 3.25 was paid in August 2020

1 For 2020, expected free cash flow is DKK 34-39 billion.
Note: Share repurchase programmes run for 12 months starting Feb until Jan of the following year.
Currency impact on Novo Nordisk’s P/L

**Operational currency impact**

- All movements in currencies will directly impact the individual reported functional lines of the Novo Nordisk’s P&L statement
- The currency effect on e.g. operating profit growth is the difference between the reported growth and the operating profit growth at CER
- Key currencies account for around 65-85% of the total currency exposure
- No hedging effects are included in the operating profit
- Sensitivity table gives an indication of gain/loss of a 5% immediate change in exchange rates compared to exchange rates on announcement day

**Financial currency impact**

- All gain/losses from hedging contracts are included in the financial income/expenses
- All key currencies are hedged:
  - USD 9 months
  - CNY 7 months
  - JPY 12 months
  - CAD 9 months
  - GBP 10 months
- Hedging is primarily performed with the use of forward contracts
- Net financials includes hedging gain/loss including the cost of hedging and the effect from currency gain/losses of balances in non-hedged currencies
- Hedging costs are the interest rate differentials between DKK and hedged currencies

Note: Example is based on Annual Report 2019
Currency development of hedged and non-hedged currencies in the first nine months of 2020

### Hedged Currencies

<table>
<thead>
<tr>
<th>Currency</th>
<th>9M 2019 avg.</th>
<th>9M 2020 avg.</th>
<th>Spot rate</th>
<th>Impact of a 5% move</th>
<th>Hedging (months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USD²</td>
<td>664</td>
<td>663</td>
<td>630</td>
<td>1,900</td>
<td>11</td>
</tr>
<tr>
<td>CNY²</td>
<td>97</td>
<td>95</td>
<td>94</td>
<td>450</td>
<td>6³</td>
</tr>
<tr>
<td>JPY²</td>
<td>6.1</td>
<td>6.2</td>
<td>6.0</td>
<td>150</td>
<td>12</td>
</tr>
<tr>
<td>CAD²</td>
<td>500</td>
<td>491</td>
<td>478</td>
<td>130</td>
<td>9</td>
</tr>
<tr>
<td>GBP²</td>
<td>845</td>
<td>843</td>
<td>820</td>
<td>100</td>
<td>10</td>
</tr>
</tbody>
</table>

### Non-Hedged Currencies

<table>
<thead>
<tr>
<th>Currency</th>
<th>9M 2019 avg.</th>
<th>9M 2020 avg.</th>
<th>Spot rate³</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARS²</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>TRY²</td>
<td>118</td>
<td>99</td>
<td>78</td>
</tr>
<tr>
<td>INR²</td>
<td>9.5</td>
<td>8.9</td>
<td>8.5</td>
</tr>
<tr>
<td>RUB²</td>
<td>10.2</td>
<td>9.4</td>
<td>8.2</td>
</tr>
<tr>
<td>BRL²</td>
<td>171</td>
<td>133</td>
<td>112</td>
</tr>
</tbody>
</table>

¹ Year-to-date realised data and remainder expected flat currency development based on the spot rate as of 26 October 2020; ² DKK per 100; ³ Spot rate as of 26 October 2020; ⁴ Impact on operating profit in the next 12 months of a 5% immediate currency move. DKK million per annum; ⁵ Chinese Yuan traded offshore (CNH)

Note: Operating profit impact of one of the non-hedged currencies appreciating 5% is in the range of DKK +10 to +50 million.
Stable ownership structure - secured through A and B-share structure

**Share structure**

- **Novo Nordisk Foundation**
  - 76.6% of votes
  - 28.3% of capital
- **Novo Holdings A/S**
- **Institutional and private investors**
  - 23.4% of votes
  - 71.7% of capital
- **A shares**
  - 537m shares
- **B shares**
  - 1,813m shares

**The Novo Nordisk Foundation**

- The Novo Nordisk Foundation is a self-governing institution that
  - provides a stable basis for Novo Nordisk and
  - 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

Note: As of 11 May 2020. Treasury shares are included, however voting rights of treasury shares cannot be exercised.
Sustainability

1. Sustainable business 118
2. Social responsibility 119
3. Environmental responsibility 124
Delivering on our purpose Novo Nordisk is committed

By sustainable business, we mean

Integrating sustainability into every aspect of decision-making, in strategies and actions

Adding value to society and to our future business

Always keeping in mind what is best in the long term for the patients we serve, our employees, the communities in which we are present and the global society we are part of.

Guided by the Novo Nordisk Way

The Novo Nordisk Way guides how we lead a sustainable business. It sets direction, unites us around a common purpose and spells out expected behaviours in a way that is consistently understood by everyone.

It includes the commitment, anchored in the Articles of Association, to do business in a financially, environmentally and socially responsible way that considers the interests of stakeholders and the long-term interests of our shareholders. The goal is to avoid any negative impacts, and maximise the positive impacts we can have through our business activities.
Social responsibility is core to Novo Nordisk and initiatives focus on prevention, access and innovation

We are driving change to defeat diabetes by...

...accelerating **prevention** to bend the curve...

...providing **access to affordable** care for vulnerable patients in every country...

...**innovating** to improve lives...

... and thereby help society rise to one of its biggest challenges
Providing access to affordable care is a key priority for Novo Nordisk

Product quality and patient safety is material

30.0 million patients reached with Diabetes care products

2.9 million people with diabetes treated at cost below USD 0.12 per day

105 million DKK donations to World Diabetes Foundation and Novo Nordisk Haemophilia Foundation

4 product recalls, 0 failed inspections

Access to insulin commitment strengthened

Novo Nordisk guarantees to make low-priced human insulin available to the world’s poorest countries and selected organisations providing humanitarian relief

76 low- and middle-income countries covered

As of 1 August, 2020 ceiling price is reduced from 4 to 3 USD/vial

Note: Above is 2019 year-end data. Full social statements to be found in Novo Nordisk Annual Report 2019

1 This reflects the price to governments in the ‘Access to insulin commitment’.
Novo Nordisk offers affordability programmes to increase support to patients inside and outside the system

<table>
<thead>
<tr>
<th>Increase support for patients inside the insurance system</th>
<th>Expand support for patients outside the system</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supporting Affordable Patient Access</strong></td>
<td><strong>Patient Assistance Program</strong></td>
</tr>
<tr>
<td>• ~USD18 billion in access rebates, discounts and fees¹</td>
<td>• PAP: ~50,000 patients receive free insulin¹</td>
</tr>
<tr>
<td>• &gt;USD200 million in co-pay assistance programmes¹</td>
<td>• Added Ozempic®, Xultophy® and Rybelsus®</td>
</tr>
<tr>
<td><strong>Follow-on brand insulin²</strong></td>
<td><strong>IRS Preventive Benefit Change</strong></td>
</tr>
<tr>
<td>• List price discount of 50% of NovoLog® and NovoLog® Mix</td>
<td>• Timing: Immediate, impact starting 2021</td>
</tr>
<tr>
<td></td>
<td>• CIGNA/ESI partnering on benefit design</td>
</tr>
<tr>
<td><strong>Affordable Human Insulin Option²</strong></td>
<td><strong>Insulin Savings Programme²</strong></td>
</tr>
<tr>
<td>• Novo Nordisk human insulin available for about USD25/vial at national pharmacies, including Walmart and CVS</td>
<td>• USD99 for up to 3 vials or 2 boxes of pens</td>
</tr>
<tr>
<td>• An estimated 500,000 accessing Novo Nordisk human insulin through these partnerships</td>
<td>• Any combination of NNI analog insulins</td>
</tr>
<tr>
<td>• An immediate, one-time insulin supply option available for people facing acute need</td>
<td></td>
</tr>
</tbody>
</table>

¹ Based on full year 2010 numbers; ² Available from Novo Nordisk Pharma, Inc., a Novo Nordisk A/S company
² Initiatives effective as of January 2020
Cities Changing Diabetes aims at breaking the ‘Rule of Halves’ by tackling urban diabetes through partnerships

Global partnership platform to develop an approach to fight urban diabetes

At present more than 25 partner cities with 150+ million citizens

- Map the challenge in selected cities
- Share learning and best practices on how to break the ‘Rule of Halves’
- Implement action plans with local partners

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

Founding partners
- Steno Diabetes Center Copenhagen
- UCL

Strategic partners
- C40 CITIES
- EAT

Urban diabetes: Type 2 diabetes in cities
Novo Nordisk offers a healthy, engaging and inclusive workplace with development opportunities for employees

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

- ~42,700 FTEs
- 91% employee engagement score
- 11.4% employee turnover
- 2.2 accidents with absence per million working hours

Novo Nordisk is committed to building a diverse and inclusive culture

<table>
<thead>
<tr>
<th></th>
<th>All managers</th>
<th>Sr. Managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>59%</td>
<td>86%</td>
</tr>
<tr>
<td>Women</td>
<td>41%</td>
<td>14%</td>
</tr>
</tbody>
</table>

2015: 60% 2019: 82%

Note: Full social statements to be found in Novo Nordisk Annual Report 2019
FTE: Full time employee
Novo Nordisk has set a bold ambition to have zero negative environmental impact, executed through Circular for Zero strategy

Focus on circular principles related to waste, resource use, emissions and renewable power

- **Waste:** 93% of total waste is recycled, used for biogas or recovered as energy for heat and power production

- **Resource use:** 86% of water use is in areas not subject to water stress or large seasonal variations

- **Emissions:** Emissions from operations and transportation increased to 306,000 tons CO₂ in 2019, however expecting a significant decline in 2020 due to Covid-19

- **Renewable power:** Our 2020 target has been achieved – now we have 100% renewable power for all of our production units

Note: Full environmental statements to be found in Novo Nordisk Annual Report 2019 and publicly available CDP disclosure