



Transatlantic perspectives

Lars Fruergaard Jørgensen
President & CEO
27 March 2019

The discovery of insulin

Toronto
University

Yale
University

Denmark



Discovery of insulin

Charles Best and Frederick Banting became the first researchers in the world to produce an insulin extract.

1921 TORONTO
UNIVERSITY

Permission to produce insulin in Scandinavia

On a lecture tour in North America, August and Marie Krogh obtained permission to produce insulin in Scandinavia.

1922 YALE
UNIVERSITY

Production of insulin in Scandinavia

Nordisk Insulinlaboratorium is founded in Denmark by Hans Christian Hagedorn and August Krogh. Nordisk produced the first insulin in Scandinavia

1923 DENMARK



Novo Nordisk in the US

- In **1923**, the US envoy to Denmark requested information regarding insulin on behalf of the US Government.
- In **1950**, Nordisk's crystalline protamine (NPH) insulin launched in the US.
- In **1977**, partnership established with Squibb on production based on bulk delivery of insulin crystals, sales and distribution in the US.
- In **1979**, Novo Nordisk's subsidiary in the US began marketing the company's insulins.
- In **1981**, Novo Nordisk became the first Scandinavian company to introduce its shares on the New York Stock Exchange.
- In **1982**, Novo Nordisk-Squibb subsidiary established and the US became Novo Nordisk's largest market for insulin and other pharmaceutical products.
- In **1993**, Novo Nordisk established its first US manufacturing facility for diabetes medicines in Clayton.



LEGATION OF THE
UNITED STATES OF AMERICA

København den 26. September 1923.

Herr Dr. med. H. C. Hagedorn,
Onsgaardsvej 12,
Hellerup.

Gesandtskabet henvendte sig fornylig til Løve-
apoteket med Anmodning om Oplysninger angaaende
Fabrikationen af Insulin, i hvilke Mængder den nu
fremstilles, dens Fremstillingspris, Udsalgspris,
Fryksager angaaende dens Anvendelse, o.s.v., og blev
af Apoteket henvist til Dem.

Da den amerikanske Regering er meget interesseret
i Insulin, vilde Legationen være Dem meget taknemlig
for enhver Oplysning De matte se Dem i Stand til at
sende den.

Med særdeles Agtelse,

John Dymally Prince
Amerikansk Gesandt.

eller i behandl



NEARLY 6,000
EMPLOYEES ACROSS
U.S. LOCATIONS



\$9.0 BILLION TOTAL U.S.
SALES IN 2018



APPROXIMATELY 560
PEOPLE WORKING IN R&D
IN THE U.S.



WORKING WITHIN DIABETES,
HEMOPHILIA, GROWTH
DISORDERS, OBESITY AND
OTHER SERIOUS CHRONIC
DISEASES



U.S. HEADQUARTERS IN
PLAINSBORO, NJ, WITH
LOCATIONS IN FIVE STATES

INDIANAPOLIS (IN), SEATTLE (WA), CLAYTON
(NC), PLAINSBORO (NJ), WEST LEBANON (NH)



17 MEDICINES MARKETED
ACROSS THERAPEUTIC
AREAS



INVESTING 2.0 BN \$
IN EXPANSION OF US
PRODUCTION FACILITIES

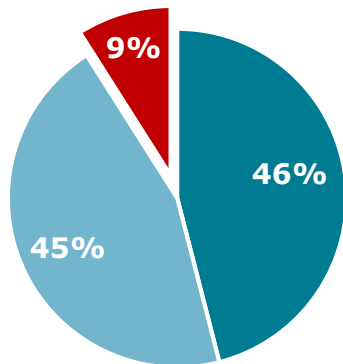


PATIENT AFFORDABILITY IN THE US INCLUDE
COLLABORATIONS WITH MAJOR PHARMACEUTICALS AS WELL AS
PATIENT ASSISTANCE PROGRAMMES

US insulin net prices have declined in recent years, yet some patients still struggle with affordability

The US population by health insurance coverage

326 million people

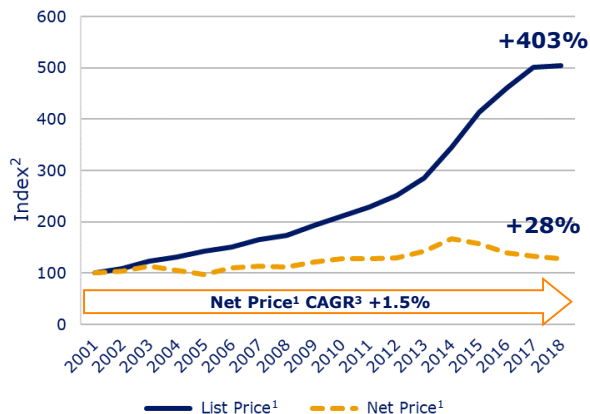


- Private insurances schemes
- Government insurance schemes
- Uninsured

Note: Government insurance schemes cover Medicare, Medicaid and Public exchanges.

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.

List price vs net price Example: NovoLog® vial



¹) Adjusted for inflation.

²) Y-axis represents Annual List & Net Price Indices adjusted for CPI-U.

³) Compound annual growth rate

Affordable human insulin available



Human insulin available for \$25/vial.
Equivalent to daily treatment cost of \$1-2.

