

TXMD Overview

June 2017



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Forward-Looking Statements

This presentation by TherapeuticsMD, Inc. (referred to as “we” and “our”) may contain forward-looking statements. Forward-looking statements may include, but are not limited to, statements relating to our objectives, plans and strategies, as well as statements, other than historical facts, that address activities, events or developments that we intend, expect, project, believe or anticipate will or may occur in the future. These statements are often characterized by terminology such as “believe,” “hope,” “may,” “anticipate,” “should,” “intend,” “plan,” “will,” “expect,” “estimate,” “project,” “positioned,” “strategy” and similar expressions and are based on assumptions and assessments made in light of our managerial experience and perception of historical trends, current conditions, expected future developments and other factors we believe to be appropriate.

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TX-004HR, TX-001HR, TX-005HR, and TX-006HR are investigational drugs and are not approved by the FDA. This non-promotional presentation is intended for investor audiences only.

*PDF copies of press releases and financial tables can be viewed and downloaded at our website:
www.therapeuticsmd.com/pressreleases.aspx.*

TherapeuticsMD[®] (TXMD)

Innovative women's health company exclusively focused on developing and commercializing products for women throughout their life cycles



Drug candidate portfolio is built on **SYMBODA™** technology for the solubilization of bio-identical female hormones

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Two Late Stage Women's Health Assets With Large Total Addressable Market Opportunities

	TX-004HR	TX-001HR
		
Proposed Indication	Moderate to severe dyspareunia, a symptom of VVA, due to menopause	Moderate to severe hot flashes due to menopause
Condition Description	VVA due to Menopause	Menopause
Active Ingredients	Bio-Identical 17 β -Estradiol	Bio-Identical 17 β -Estradiol + Bio-Identical Progesterone
Form	Vaginal softgel capsule	Oral softgel capsule
Key Value Proposition	Easy to use, negligible systemic exposure, designed to support long-term use	Potential first and only bio-identical FDA-approved combination product
Affected US Population	32 million women ^{1,2}	36 million women ³
US TAM Opportunity	>\$20B ⁵	>\$25B ^{4,5}
Status	Received Complete Response Letter May 5, 2017	Positive Phase 3 topline data NDA submission expected 3Q17

1) The North American Menopause Society. Management of symptomatic vulvovaginal atrophy: 2013 position statement of The North American Menopause Society. *Menopause*. 2013;20(9):888–902.

2) Gass ML, Cochrane BB, Larson JC, et al. Patterns and predictors of sexual activity among women in the hormone therapy trials of the Women's Health Initiative. *Menopause*. 2011;18(11):1160–1171.

3) Derived from U.S. Census data

4) Based on pre-WHI annual scripts of FDA-approved HT products

5) Based on market pricing of current FDA-approved HT products

Seasoned Management Team with a Proven Track Record of Commercial Execution

Tommy Thompson



Chairman of the Board

- Former U.S. Secretary of Health and Human Services (2001-2005)
- Holds multiple board memberships, including Centene and United Therapeutics
- 40-year public health career

Angus Russell



Board Member

- Former Chief Executive Officer and Chief Financial Officer of Shire PLC
- Former Vice President of Corporate Finance at AstraZeneca
- Holds multiple board memberships, including Chairman of Revance Therapeutics

J. Martin Carroll



Board Member

- Former President and Chief Executive Officer of Boehringer Ingelheim (U.S.)
- Former EVP of Customer Marketing and Sales of U.S. Human Health at Merck
- Holds multiple board memberships, including Catalent

Robert Finizio
CEO,
Co-Founder,
and Director



- Co-founded vitaMedMD in 2008
- Co-founded CareFusion (Sold to Cardinal Health in 2006)
- 22 years of experience in early stage healthcare company development

Brian Bernick, MD
Chief Clinical
Officer,
Co-Founder



- Co-founded vitaMedMD in 2008
- 25 years of experience in healthcare/women's health
- Past OBGYN Department Chair - Boca Raton Regional Hospital
- Past ACOG Committee Member
- OBGYN - trained University of Pennsylvania

Sebastian Mirkin, M.D.



Chief Medical Officer

- Former Clinical Lead of Women's Health at Pfizer
- 15+ years of experience developing women's health products
- Reproductive endocrinologist & infertility specialist

John Milligan



President

- Co-founded CareFusion
- Held executive sales and operation management positions at McKesson, Cardinal and Omnicell
- 20+ years of operations experience

Dan Cartwright



Chief Financial Officer

- Former CFO of American Wireless, Telegeography, and WEB Corp
- Participated in American Wireless/Arush Entertainment merger
- Former KPMG and PricewaterhouseCoopers accountant

Julia Amadio



Chief Product Officer

- 25+ years of women's health pharmaceutical experience
- Product development leader for J&J, Wyeth, Aventis, and others
- Worked on development of Prempro®, Premphase®, and Estalis®

Jason Spitz



VP, Marketing

- 25+ years of pharmaceutical marketing, sales, and operations experience
- Led commercialization of anti-estrogens/estradiol, breast cancer, and ovarian cancer drugs

Dawn Halkuff



Chief Commercial Officer

- 20+ years of commercial and marketing experience
- SVP of the Pfizer Consumer Healthcare Wellness Organization
- Commercial lead for sales and marketing of the Pfizer Women's Health Division
- Head of Global Innovation at Weight Watchers International

Yulii Bogatyrenko
Executive VP,
Corporate
Development



- 20+ years of experience in biopharma and consumer businesses
- SVP of BD at Paratek Pharmaceuticals
- VP and GM at Teva Pharmaceuticals
- Senior women's health positions at Bayer and Pfizer

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TX-004HR
Vulvar and
Vaginal Atrophy (VVA)
Program



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Vulvar and Vaginal Atrophy (VVA)

- **Chronic** and **progressive** condition characterized by thinning of vaginal tissue from decreased estrogen levels
- Diagnosed in approximately 50% of postmenopausal women¹
- Primary symptom = dyspareunia (painful intercourse)
- Secondary symptoms include: vaginal dryness, itching, irritation, bleeding with sexual activity, dysuria, urgency, frequency, recurrent UTIs, and incontinence
- Current treatments include: prescription creams, tablets, and rings in addition to over-the-counter lubricants

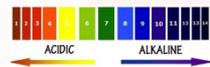
Healthy Vaginal Tissue

Superficial cells: >15%

Intermediate cells: 80%

Parabasal cells: < 5%

pH: < 5



Atrophic Vaginal Tissue

<5%

60%

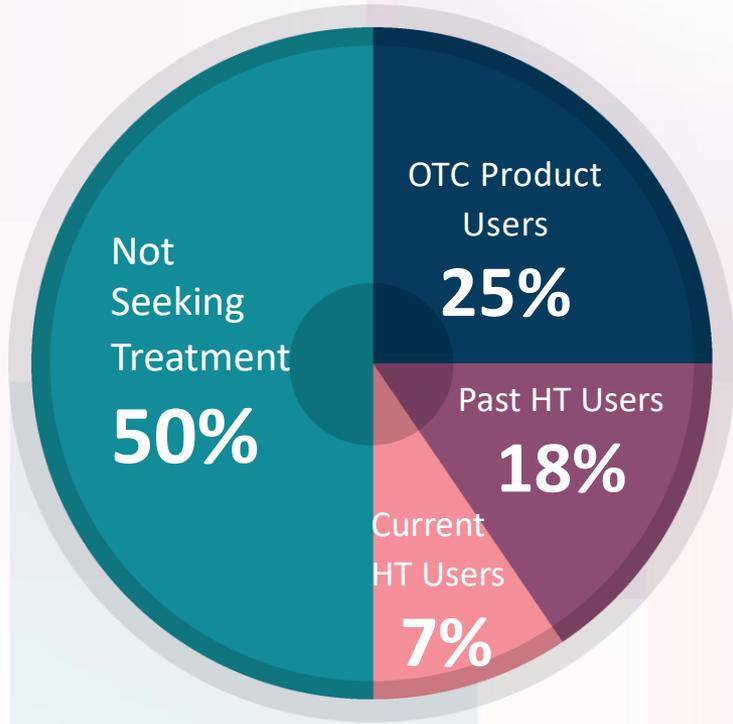
>30%

> 5



1) Kingsberg, Sheryl A., et al. "Vulvar and Vaginal Atrophy in Postmenopausal Women: Findings from the REVIVE (REal Women's Views of Treatment Options for Menopausal Vaginal ChangEs) Survey." International Society for Sexual Medicine 2013, no. 10, 1790-1799.

Current US VVA Market Overview



>\$20B Branded Total US Market Opportunity⁵

32M Women with VVA Symptoms^{1,2}

~50%, or ~16M seek treatment for VVA⁴

- **Only 7%, or ~2.3M women**, are currently being treated today with Rx hormone therapy (HT)³
 - Long-term safety concerns⁶
 - Efficacy⁶
 - Messiness⁶
 - Need for applicator⁶
- **18%, or ~5.7M women**, are **past HT users** and were unsatisfied/unsuccessful with past treatments⁴
- **25%, or ~8M women**, are **users of OTC products*** such as lubricants that do not treat the underlying pathological cause of VVA nor halt or reverse symptoms⁴

~50%, or ~16M women do not seek treatment for VVA⁴

- Lack of awareness that VVA is a treatable condition
- Estrogen exposure concerns

1) The North American Menopause Society. Management of symptomatic vulvovaginal atrophy: 2013 position statement of The North American Menopause Society. *Menopause*. 2013;20(9):888–902.

2) Gass ML, Cochrane BB, Larson JC, et al. Patterns and predictors of sexual activity among women in the hormone therapy trials of the Women's Health Initiative. *Menopause*. 2011;18(11):1160–1171.

3) IMS Health Plan Claims (April 2008-Mar 2011).

4) TherapeuticsMD "EMPOWER" Survey, 2016

5) Based on current FDA-approved market pricing

6) Wysocki, S et al, Management of Vaginal Atrophy: Implications from the REVIVE Survey. *Clinical Medicine Insights: Reproductive Health* 2014;8 23-30 doi:10.4137/CMRH.S1449

* Not treated with an FDA approved Rx product. OTC products do not effectively treat the underlying pathological causes of VVA and therefore do not halt or reverse the progression of this condition.

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Current FDA-Approved VVA Products

Products	Estrace Cream®	Premarin Cream®	Vagifem®	Estring®	Osphena®	Intrarosa®
						
						
FDA Approval	1984	1978	1999	1996	2013	2016
TRx Dollars 2016 ¹	\$511,035,880	\$505,351,340	\$502,715,665 ^a	\$105,040,703	\$72,755,311	Approved 11/2016
Method of Admin	Vaginal Cream	Vaginal Cream	Vaginal Tablet	Ring	Oral Tablet	Vaginal Insert
Application	Reusable Vaginal Applicator	Reusable Vaginal Applicator	Vaginal Applicator	90-day Ring	Oral Daily SERM	Vaginal Applicator
Active Ingredient	100 mcg Estradiol	625 mcg/g Conjugated Equine Estrogens	10 mcg Estradiol	2,000 mcg Estradiol	60,000 mcg Ospemifene	6,500 mcg Prasterone
Average Maintenance Dose	100 mcg 2x/week	312.5 mcg 2x/week	10 mcg 2x/week	7.5 mcg daily	60,000 mcg daily	6,500 mcg daily
Onset of Action* Dyspareunia	Approval Without Dyspareunia and Dryness Data	Week 4+	Week 8	Approval Without Dyspareunia and Dryness Data	Week 12	Week 6
Onset of Action* Dryness		Not Demonstrated			Approval Without Dryness Data	Week 12

Based on Product Prescribing Information
Not Head-to-Head Comparative Studies

*Onset of Action = First efficacy observation

1. Symphony Health Solutions PHAST Data powered by IDV; Annual 2016

a. 2016 Vagifem and Yuvaferm (authorized generic of Vagifem)

Vagifem [package label] <http://www.novo-pi.com/vagifem.pdf>

Premarin Vaginal Cream [package label] <http://labeling.pfizer.com/showlabeling.aspx?id=132>

Estrace Vaginal Cream [package label] http://pi.actavis.com/data_stream.asp?product_group=1880&p=pi&language=E

Osphena [package label] http://www.accessdata.fda.gov/drugsatfda_docs/label/2013/203505s000lbl.pdf

Intrarosa [package label] http://www.accessdata.fda.gov/drugsatfda_docs/label/2016/208470s000lbl.pdf

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Compliance and Fills Per Year Drives Top-Line Revenue

Current VVA Market

Vaginal Creams:

Average:
1.5 Fills Per Year²



Estrace



Premarin

Reasons Women Stop

Messiness¹

Reusable Applicator¹

Long-term Safety¹

Dose Preparation by User Required³

Vaginal Tablets:

Average:
3.5 Fills Per Year²



Vagifem

Reasons Women Stop

Efficacy¹

Applicator¹

Long-term Safety¹

Systemic Absorption¹

Product	TRx Dollars ⁴	Patient Count ⁵	Patient Share ⁵
Estrace	\$511,035,880	868,052	39%
Premarin	\$505,351,340	750,185	34%
Vagifem/Yuvafem	\$502,715,665	433,187	20%

- Higher average fills per year enable Vagifem/Yuvafem to generate equal revenue as Premarin and Estrace with significantly less patients on therapy

1) Wysocki, S et al, Management of Vaginal Atrophy: Implications from the REVIVE Survey. *Clinical Medicine Insights: Reproductive Health* 2014;8 23-30 doi:10.4137/CMRH.S14498

2) Total Rx/Patient Count

3) The North American Menopause Society. Management of symptomatic vulvovaginal atrophy: 2013 position statement of The North American Menopause Society. *Menopause*. 2013;20(9):888-902.

4) Symphony Health Solutions PHAST Data powered by IDV; Annual 2016

5) IMS SDI's Total Patient Tracker; Annual 2016

TX-004HR: Product Candidate Profile



- First vaginal estrogen (4 mcg and 10 mcg) with negligible systemic exposure
- Strong efficacy data on both dyspareunia and vaginal dryness with a 2-week onset of action
- Small, digitally inserted, rapidly dissolving softgel capsule without the need for an applicator
- Fraction of the dose (4 mcg, 10 mcg and 25 mcg) of many existing products (Premarin and Estrace)
- No patient education required for dose preparation or applicators
- Mechanism of action and dosing that is familiar and comfortable
- Proposed dose packaging to optimize compliance and convenience
- Strong patent estate with patent expirations starting 2032

Co-Primary and Key Secondary Efficacy Endpoints

	4 mcg	10 mcg	25 mcg
Superficial Cells	<0.0001	<0.0001	<0.0001
Parabasal Cells	<0.0001	<0.0001	<0.0001
Vaginal pH	<0.0001	<0.0001	<0.0001
Severity of Dyspareunia	0.0149	<0.0001	<0.0001
Severity of Vaginal Dryness	0.0014	<0.0001	<0.0001

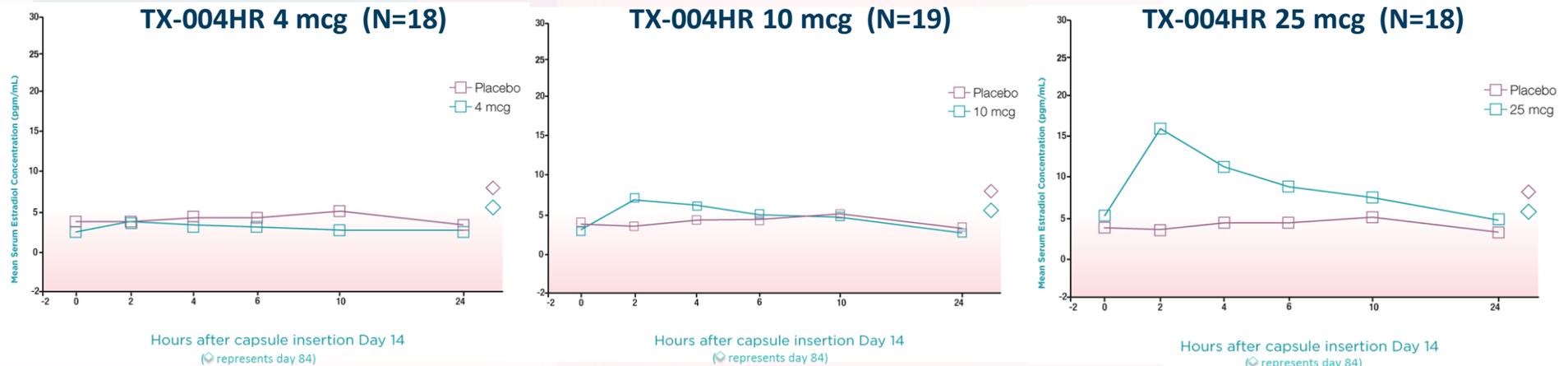
MMRM P-value vs placebo LS = Least Squares

Arithmetic Mean Estradiol Serum Concentrations – Unadjusted

TX-004HR 4 mcg (N=18)

TX-004HR 10 mcg (N=19)

TX-004HR 25 mcg (N=18)



	AUC ₀₋₂₄ (pg.h/mL)	C _{avg(0-24)} (pg/mL)		AUC ₀₋₂₄ (pg.h/mL)	C _{avg(0-24)} (pg/mL)		AUC ₀₋₂₄ (pg.h/mL)	C _{avg(0-24)} (pg/mL)
4 mcg	87.22 (42.77)	3.634 (1.78)	10 mcg	110.14 (54.57)	4.58 (2.27)	25 mcg	171.56 (80.13)	7.14 (3.33)
Placebo (pl)	104.16 (66.38)	4.34 (2.76)	Placebo (PI)	104.16 (66.38)	4.34 (2.76)	Placebo (PI)	104.16 (66.38)	4.34 (2.76)
P-value vs PI	0.3829	0.3829	P-value vs PI	0.7724	0.7724	P-value vs. PI	0.0108	0.0108

TX-004HR New Drug Application (NDA) Background

- **Type of Filing**
 - 505(b)(2)
 - Ability to reference non-clinical and clinical safety data for estrogen available in medical literature
- **FDA Guidance**
 - 12-week study required for estrogen alone products
 - “We recommend that studies be randomized, double-blinded and of 12-week duration”¹
 - Lowest effective doses and exposures are prioritized
 - “Sponsors are encouraged to investigate dosing schedules and drug delivery systems that can achieve efficacy with lowest possible exposures”¹
- **Established Precedent – Recent Estrogen Alone FDA Approvals**
 - Numerous estrogen alone products have been approved with 12-week endometrial safety data
 - Divigel, Evamist, Elestrin

TX-004HR has the lowest estrogen dose ever tested in an FDA-approved clinical trial

1. 2003 FDA Draft Guidance for Industry Estrogen and Estrogen/Progestin Drug Products to Treat Vasomotor Symptoms and Vulvar and Vaginal Atrophy Symptoms – Recommendations for Clinical Evaluation
<http://www.fda.gov/ucm/groups/fdagov-public/@fdagov-drugs-gen/documents/document/ucm071643.pdf>

TX-004HR Complete Response Letter (CRL)

- NDA for TX-004HR received a CRL on May 5, 2017
- There was **one approvability issue** identified by the FDA:
 - Lack of long-term endometrial safety data beyond the 12 weeks studied in the Rejoice Trial
 - *No cases of endometrial hyperplasia were observed in the Rejoice Trial at the end of week 12 for all doses studied and included in the NDA*
- There were **no approvability issues** identified by the FDA related to:
 - Clinical efficacy studied in the Rejoice Trial
 - Chemistry, Manufacturing, and Controls (CMC)

Potential CRL Resolution Pathways

- Type A Meeting set with the FDA - **June 14, 2017**
 - TXMD Proposal:
 - Resubmit NDA for immediate approval of TX-004HR 4 mcg and 10 mcg doses
 - Adopt labeling consistent with 2005 Labeling Guidance, including current boxed warning, and notation that the product has not been studied for longer than 12 weeks
 - Commit to conduct a post-marketing study of TX-004HR 4 mcg and 10 mcg doses to further assess long-term (12-month) endometrial and general safety
 - Discontinue pursuit of approval of TX-004HR 25 mcg dose at this time
- Receipt of Type A Meeting minutes from the FDA generally within 30 days post-meeting

Resubmission Pathway

- Resubmit amended NDA
 - Establish new target action date
- If Class 1 Resubmission, approval decision within 60 days
- Late 3Q17/Early 4Q17 approval (if successful)

Dispute Resolution Pathway

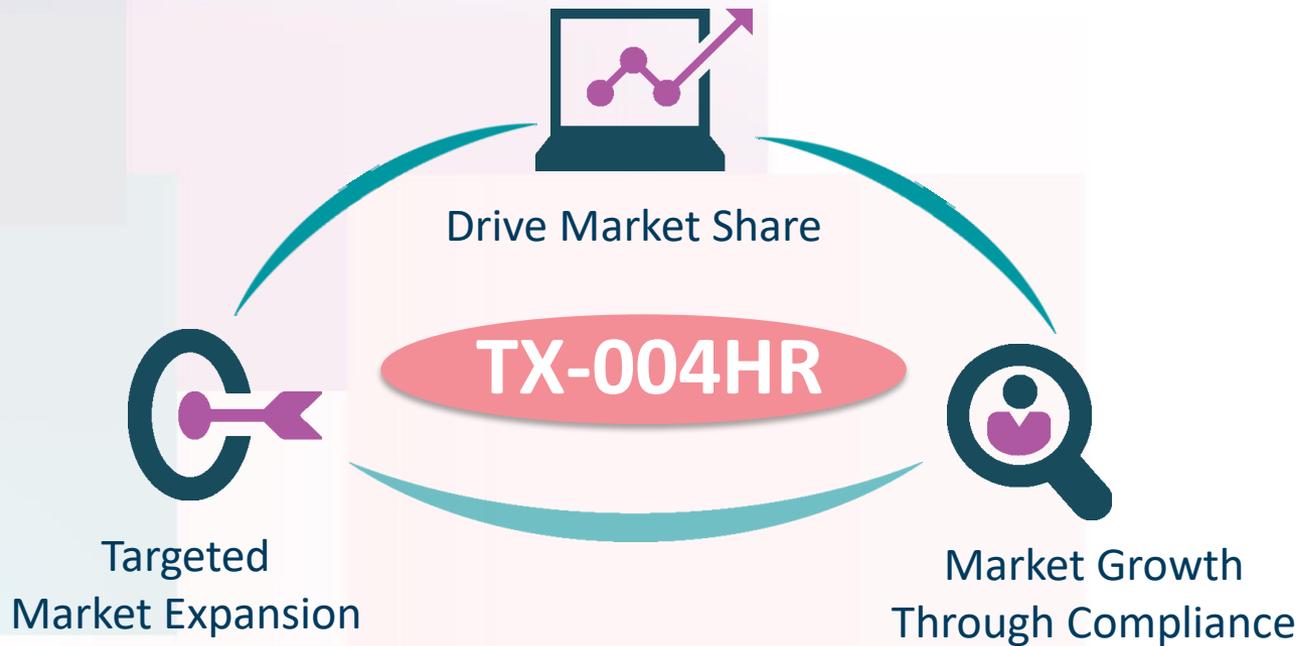
- File Dispute Resolution package
- Dispute Resolution general timeline
 - DBRUP* – 30 days, if not approved then;
 - ODE III* – 30 days, if not approved then;
 - OND* – 30 days, if not approved then;
 - FDA Commissioner – 30 days
- Late 4Q17/Early 1Q18 approval (if successful)

*Division of Bone, Reproductive, and Urologic Products

*Office of Drug Evaluation III

*Office of New Drugs

Focus on Three Main Fundamental Levers to Drive TX-004HR Launch, If Approved



Aligned Healthcare Providers (HCPs) and Patient Strategies Drive Fundamental Levers of Growth

Drive Market Share

Differentiate TX-004HR as new treatment option that redefines relief



Targeted Market Expansion

Elevate importance of VVA by demonstrating true impact of disease



Market Growth Through Compliance



Build a differentiated national care model for successful diagnosis, treatment, and management of symptoms of VVA caused by menopause

Commercial Execution

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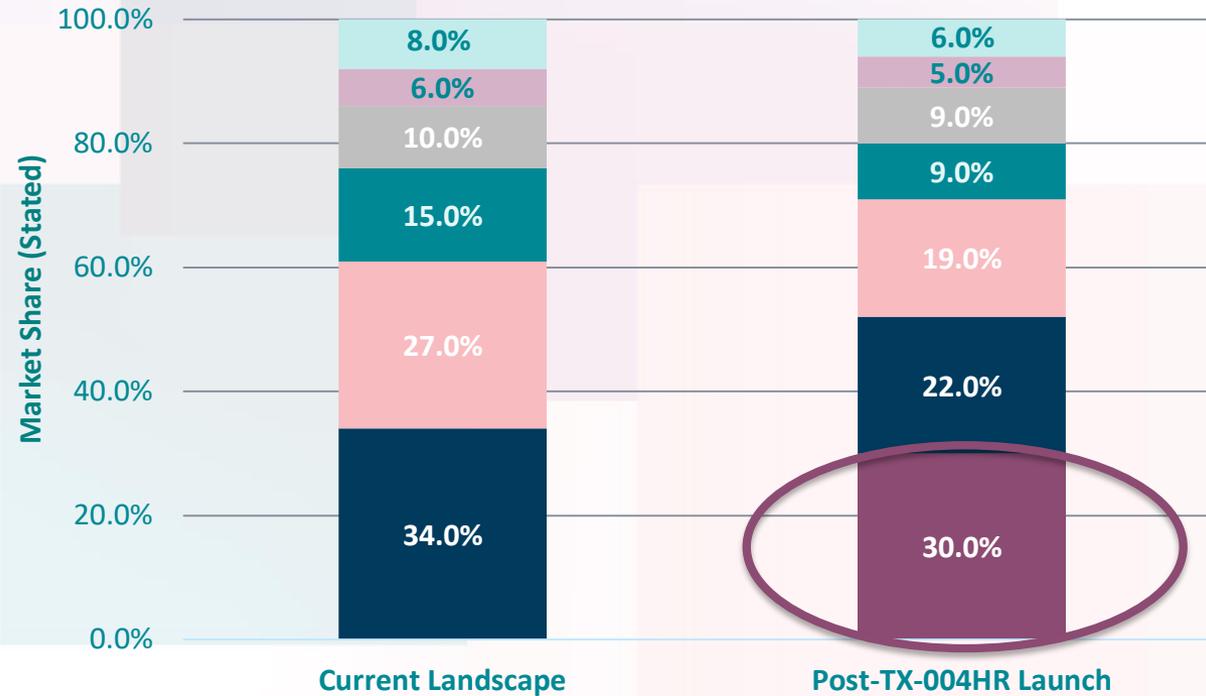
Efficacy, Safety, and Positive User Experience Redefines Relief

	Perceived Shortcomings	TX-004HR Solution		
Efficacy	<ul style="list-style-type: none"> 1 in 4 women achieve limited relief¹ Delayed onset of efficacy¹ 	<ul style="list-style-type: none"> Early efficacy observed at week 2 Efficacy for vaginal dryness 		
Safety/ Side Effects	<ul style="list-style-type: none"> Hormone exposure concerns¹ Messiness¹ 	<ul style="list-style-type: none"> Negligible systemic exposure No messiness 		
Convenience	<ul style="list-style-type: none"> Products difficult to use¹ Inadequate instructions on use¹ 	<ul style="list-style-type: none"> No applicator; any time of day use Simple dose pack; easy instructions 		
Patients Choose TX-004HR	Rejoice Trial Survey Results	4 mcg (N=119)	10 mcg (N=113)	25 mcg (N=128)
	TX-004HR preferred over previously used VVA therapies	73.9%	67.3%	74.2%

1) Wysocki, S et al, Management of Vaginal Atrophy: Implications from the REVIVE Survey. *Clinical Medicine Insights: Reproductive Health* 2014;8:23-30 doi:10.4137/CMRH.S14498
REJOICE Trial Results

HCPs Estimate Giving TX-004HR 30% Market Share

HCP Stated Preference Share
 (Adjusted Percent of Prescriptions, n = 400 HCPs)



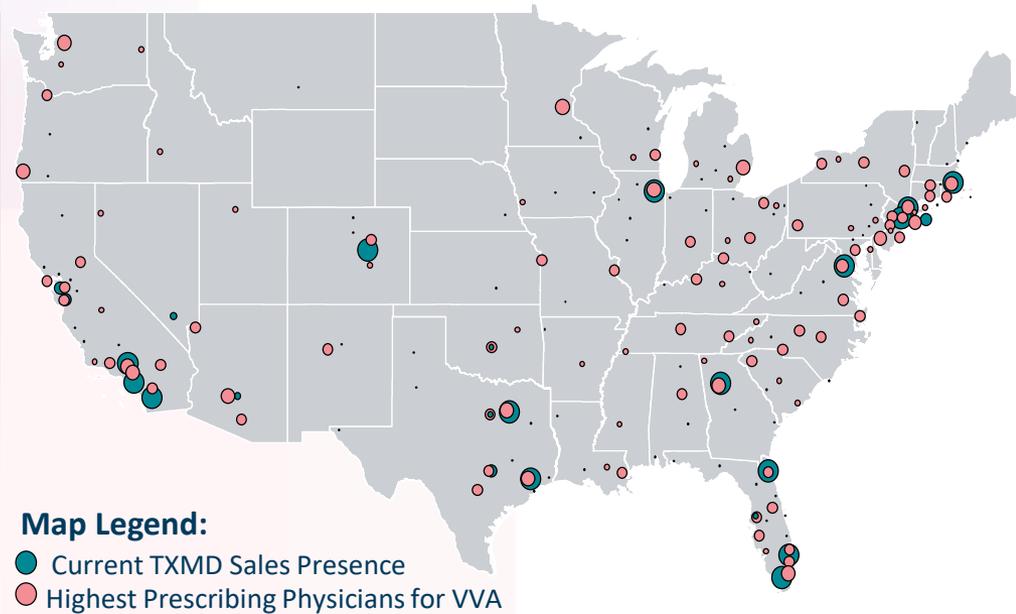
- Large share gains from 3 largest competitors
- Set attainable 3-5 year company launch goals

■ TX-004HR
 ■ Premarin Cream
 ■ Estrace Cream
 ■ Vagifem
 ■ Osphena
 ■ Estring
 ■ Other

Foundation Already Built for a Strong Launch

TXMD Sales Force Currently in OB/GYN Offices

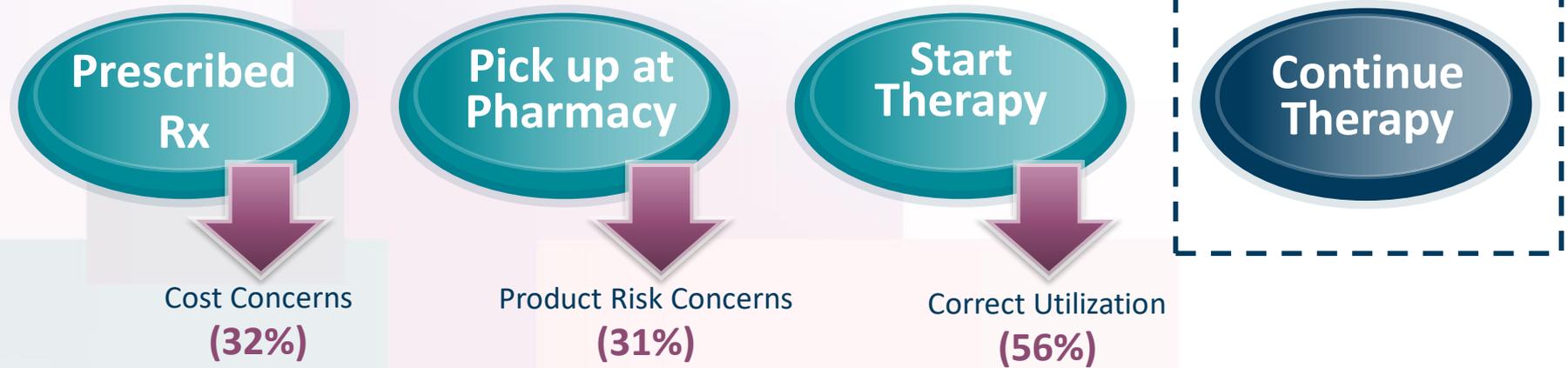
- 40% overlap with current prenatal vitamins business
- Currently calling on VVA targets with disease awareness campaign
- Planned sales force of 100 in place prior to launch
- Partnership with inVentiv, leading contract sales organization
- Operational and analytic systems



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Opportunity to Further Increase Compliance with Focus on Patient Journey Drop Off Points



National Care Model

Patient Care

- Financial
- Condition and product education
- Follow on communications

Proven Results in Prenatal Business

- 70% of patients utilize services

Compliance in Prenatal Business

- 8 months vs category average of 2 months



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Increased Compliance and Fills Per Year Drives TX-004HR Net Revenue at Year 5 of Launch

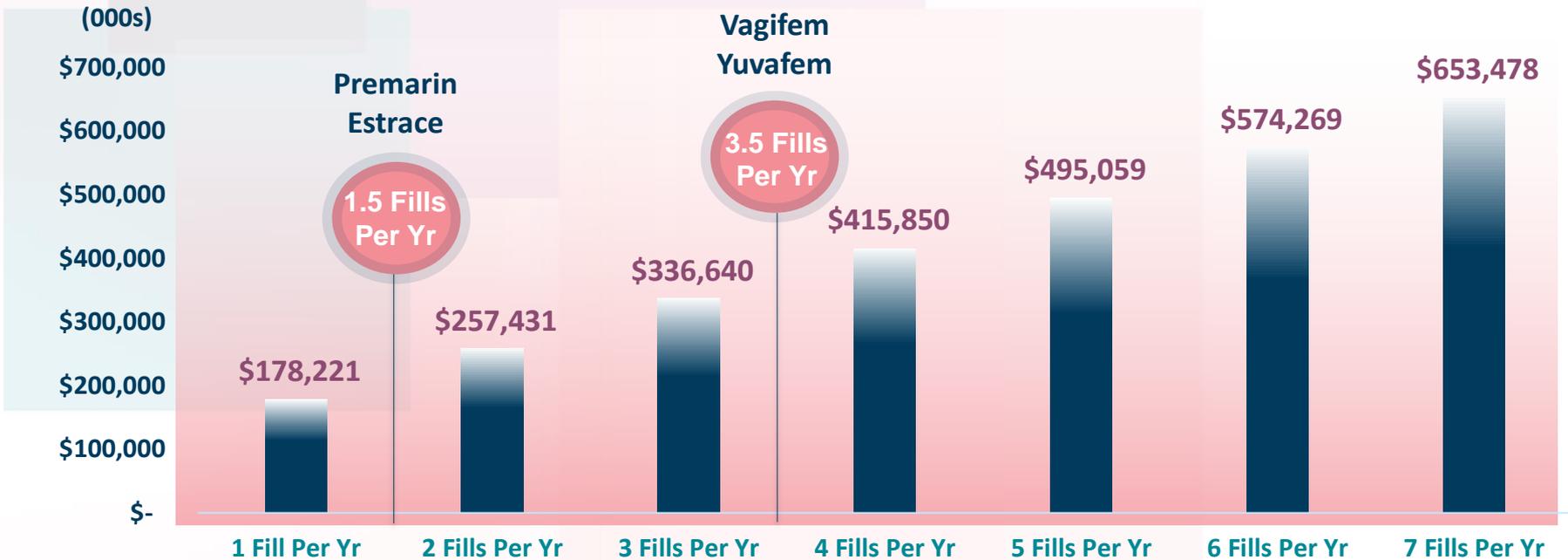
Year 5 Assumptions		
Total VVA Patients on HT ¹		2,218,252
TX-004HR Market Share		30%
TX-004HR Patients		665,000
WAC of Loading Dose	\$	382.86
WAC of Maintenance Dose	\$	170.16
Average Rebate per Rx		30%



Zero market growth



Parity pricing - Vagifem
Zero price increases



1) IMS SDI's Total Patient Tracker; Annual 2016

Payers are Continuing to Provide Choice

80% of Payers Prefer 2+ Products

VVA Category		Estrace Cream	Estring	Osphena	Premarin Cream	Vagifem
Payers	Lives	Univ. Status	Univ. Status	Univ. Status	Univ. Status	Univ. Status
Express Scripts PBM	28,411,137	Preferred	Covered	Covered	Preferred	Preferred
CVS Caremark RX	25,490,409	Preferred	Covered	Preferred	Preferred	Preferred
UnitedHealth Group, Inc.	15,606,808	Covered	Preferred	Covered	Covered	Preferred
Anthem, Inc.	14,307,637	Preferred	Preferred	Covered	Preferred	Covered
OptumRx	9,508,973	Covered	Covered	Covered	Preferred	Covered
Aetna, Inc.	9,265,194	Covered	Covered	Covered	Preferred	Covered
Department of Defense - TRICARE	7,004,961	Preferred	Preferred	Preferred	Preferred	Preferred
Kaiser Foundation Health Plans, Inc.	6,610,331	Preferred	Preferred	Not Covered	Preferred	Not Covered
CIGNA Health Plans, Inc.	6,375,734	Covered	Preferred	Covered	Preferred	Covered
Blue Cross Blue Shield Association Corporatic	5,442,846	Preferred	Covered	Covered	Preferred	Preferred
Health Care Service Corporation	5,135,711	Preferred	Covered	Covered	Covered	Preferred
Department of Veterans Affairs (VHA)	4,803,818	Covered	Covered	Covered	Preferred	Covered
Humana, Inc.	2,325,564	Covered	Covered	Not Covered	Covered	Covered
Blue Cross Blue Shield of Michigan	2,317,410	Covered	Preferred	Covered	Preferred	Preferred
Indian Health Service (IHS)	2,201,809	Covered	Covered	Covered	Preferred	Covered
Blue Shield of California	1,894,377	Preferred	Preferred	Covered	Preferred	Preferred
Prime Therapeutics	1,885,924	Preferred	Covered	Covered	Covered	Preferred
Blue Cross and Blue Shield of Florida, Inc.	1,861,938	Covered	Covered	Covered	Preferred	Preferred
Highmark, Inc.	1,781,021	Covered	Preferred	Covered	Preferred	Covered
CareFirst, Inc.	1,530,652	Preferred	Covered	Preferred	Preferred	Preferred

TX-001HR

Combination

Estrogen + Progesterone
(E+P) Program



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Menopause Overview

- **Menopause represents the natural life-stage transition when women stop having periods as the production of Estrogen (E) and Progesterone (P) decreases**
 - Average age of menopause 51 years¹
 - Women may spend, on average, more than one-third of their lives in a hypoestrogenic state
- **May result in physical and emotional symptoms¹**
 - Symptoms include vasomotor symptoms (hot flashes, night sweats), mood changes and vaginal dryness
 - Prolonged lack of estrogen can affect the bones, cardiovascular system, and increases risks for osteoporosis
- **Long history of Estrogen (E) and Progesterone (P) use**
 - Estrogen and progesterone have been used for over 50 years as treatment
 - Estrogen to reduce symptoms and other long-term conditions
 - Progesterone to prevent thickening of the uterine wall²
 - Increased risk for endometrial hyperplasia/endometrial cancer if estrogen unopposed²

1) National Institutes of Health, National Institute on Aging, <https://www.nia.nih.gov/health/publication/menopause>, last accessed November 3, 2015.

2) International Journal on Women's Health, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3897322/>

TX-001HR Product Development Rationale

- **2002 Women's Health Initiative (WHI) study showed that *synthetic* hormones increased the risk of breast cancer, stroke, heart attack and blood clots** (all FDA-approved combination hormonal products contain a synthetic Progestin and not a bio-identical Progesterone)
- **Post WHI, women and healthcare providers shifted to Bio-Identical Hormone Therapy (BHRT) containing bio-identical estradiol and bio-identical progesterone as an alternative despite being *unapproved* drugs that are *not covered by insurance***
 - 90M+ scripts of synthetic hormone therapy prescribed annually before 2002, declining to ~10M in 2015¹
 - Today, patients have the choice between three second best therapies:
 - FDA-approved, **synthetic** combination hormones
 - FDA-approved, **separate** bio-identical hormone products
 - Unapproved, **compounded** bio-identical hormones that have not been proven safe and effective, or covered by insurance
- **Compounding filled the need for BHRT**
 - 30M scripts (3M women) of Compounded Bio-identical Hormone Therapy (CBHRT) prescribed annually in the U.S. currently^{2,3}
- **No FDA-approved BHRT combination product of estradiol + bio-identical progesterone**
- **TX-001HR would become the first and only FDA-approved bio-identical combination product to fill this unmet need**



1) Symphony Health Solutions PHAST Data powered by IDV; Annual 2015
2) The reported number of annual custom compounded hormone therapy prescription of oral and transdermal estradiol and progesterones taken combined and in combination (26MM to 33MM)
3) Pinkerton, J.V. 2015. Menopause, Vol.22, No.9, pp 0-11.

Medical Societies Discourage Prescribing of Compounded Bio-Identical Hormones

- ACOG and ASRM Committee Opinion states compounded hormones may pose additional risks compared to FDA-approved products¹
 - Lack of efficacy and safety data
 - Lack of Good Manufacturing Practices (GMP)
 - Variable purity
 - Variable content uniformity
 - Variable potency (under/over dose)
 - Lack of stability
 - Unopposed E / Ineffective P leads to increased risk of endometrial hyperplasia / cancer

Compounded Bioidentical Hormones in Endocrinology Practice: An Endocrine Society Scientific Statement

COMMITTEE OPINION
November 2007 and August 2012 (Reaffirmed 2014) Replaces No. 387, November 2007 and No. 322, November 2005

Committee on Gynecologic Practice and the American Society for Reproductive Medicine Practice Committee

Compounded Bioidentical Menopausal Hormone Therapy

ABSTRACT: Although improvement in bone density, vasomotor symptoms, and quality of life have been reported in some studies, evidence supporting these benefits is limited. The use of compounded hormone therapy is discouraged because of the lack of evidence for safety and efficacy. Compounded hormone therapy is not recommended for the treatment of menopause symptoms.

NAMS Survey Use of compounded hormone therapy in the United States: report of The North American Menopause Society

Abstract: A national survey was conducted to determine the extent of use of compounded hormone therapy (CHT) in the United States. The survey included 48 to 64 years who were postmenopausal in the United States. The survey included 1,252 women aged 48 to 64 years who were postmenopausal in the United States. The survey included 1,252 women aged 48 to 64 years who were postmenopausal in the United States. The survey included 1,252 women aged 48 to 64 years who were postmenopausal in the United States.



1) Committee on Gynecologic Practice and the American Society for Reproductive Medicine Practice Committee, Number 532, August 2012 (Reaffirmed 2014, Replaces No. 387, November 2007 and No. 322, November 2005).

TX-001HR – Potential Best in Class Therapy

	TX-001HR (If Approved) 
Bio-Identical	✓
Single Dose Combination	✓
VMS Efficacy Data	✓
Endometrial Cancer Safety Data	✓
FDA-Approved	✓ ¹
Third-Party Reimbursement	✓ ²

Potential first and only:

- 1) Bio-identical combination estradiol & progesterone
- 2) FDA-approved

Dosing and Delivery

- Once-a-day single oral softgel capsule

Addresses Unmet Medical Need

- First and only combination of bio-identical estradiol and bio-identical progesterone product candidate
- Single combination dose option
- Positive Phase 3 Replenish Trial safety and efficacy results
- Potential FDA-approval with insurance coverage

Benefits to women, healthcare providers, and pharmacies

1) NDA to be submitted

2) Reimbursement anticipated if FDA-approved

Replenish Trial Co-Primary Endpoints

Primary Efficacy Endpoints: Mean Change in Frequency and Severity of Hot Flashes Per Week Versus Placebo at Weeks 4 and 12, VMS-mITT Population					
Estradiol/Progesterone	1 mg/100 mg (n = 141)	0.5 mg/100 mg (n = 149)	0.5 mg/50 mg (n = 147)	0.25 mg/50 mg (n = 154)	Placebo (n = 135)
Frequency					
Week 4 P-value versus placebo	<0.001	0.013	0.141	0.001	-
Week 12 P-value versus placebo	<0.001	<0.001	0.002	<0.001	-
Severity					
Week 4 P-value versus placebo	0.031	0.005	0.401	0.1	-
Week 12 P-value versus placebo	<0.001	<0.001	0.018	0.096	-
Primary Safety Endpoint: Incidence of Consensus Endometrial Hyperplasia or Malignancy up to 12 months, Endometrial Safety Population [‡]					
Endometrial Hyperplasia	0% (0/280)	0% (0/303)	0% (0/306)	0% (0/274)	0% (0/92)

MITT = Modified intent to treat

[‡]Per FDA, consensus hyperplasia refers to the concurrence of two of the three pathologists be accepted as the final diagnosis

P-value < 0.05 meets FDA guidance and supports evidence of efficacy

Primary Efficacy Analysis pre-specified with the FDA in the clinical protocol and Statistical Analysis Plan (SAP)

- P-value < 0.05 meets FDA guidance and supports evidence of efficacy

Multi-Billion Dollar Total Substitutable Market Opportunity

	TX-001HR (if approved) 		
	FDA-Approved		Compounded Combination Bio-Identical E+P 
	Separate Bio-Identical E & P Pills 	Combination Synthetic E+P¹ 	
TRx US:	~3.5 million ²	~3 million ²	12 – 18 million
TX-001HR Potential Market	\$700M-\$875M ³	\$600M-\$750M ³	\$2.4B-\$4.5B ³
TX-001HR Total Substitutable Market Opportunity	\$3.7B – \$6.1B		

If approved, TX-001HR can provide a single pill solution for women and physicians who:

- 1) Demand an FDA-approved bio-identical combination hormone product
- 2) Do not trust compounded hormones

1) Includes the following drugs: Activella®, FemHRT®, Angeliq®, Generic 17β + Progestins, Prempro®, Premphase®, Duavee®, Brisdelle®

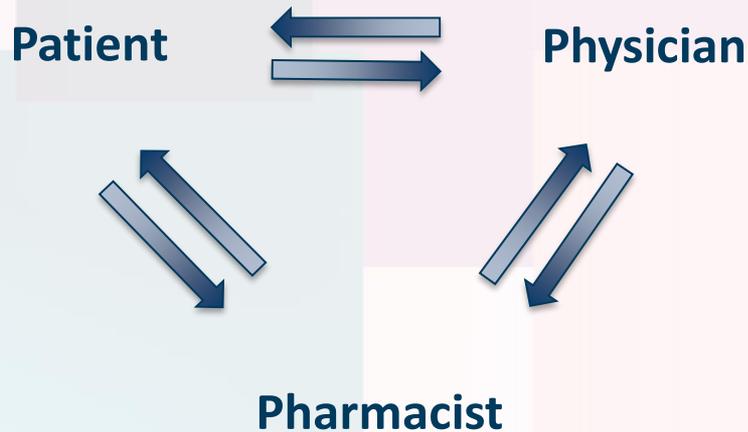
2) Symphony Health Solutions PHAST Data powered by IDV; 12 months as of December 31 2015

3) Assume WAC pricing between \$200-250

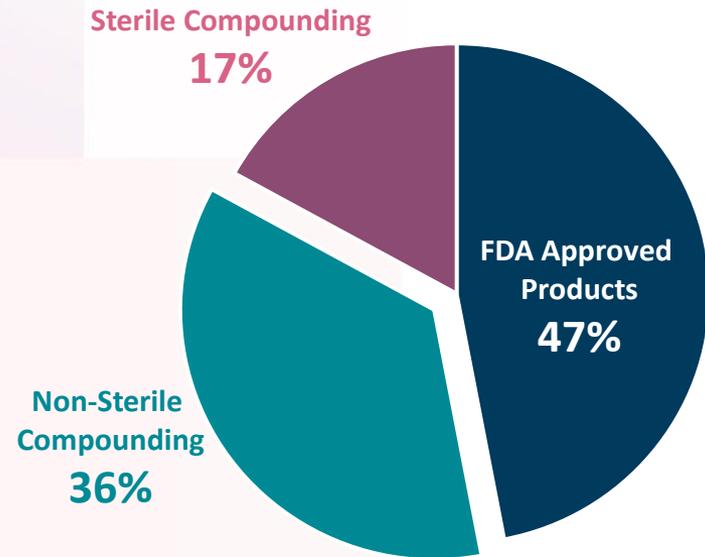
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Understanding the Compounding Pharmacy

Collaborative Relationship



Compounding Pharmacies % of Business (by Prescription Units)

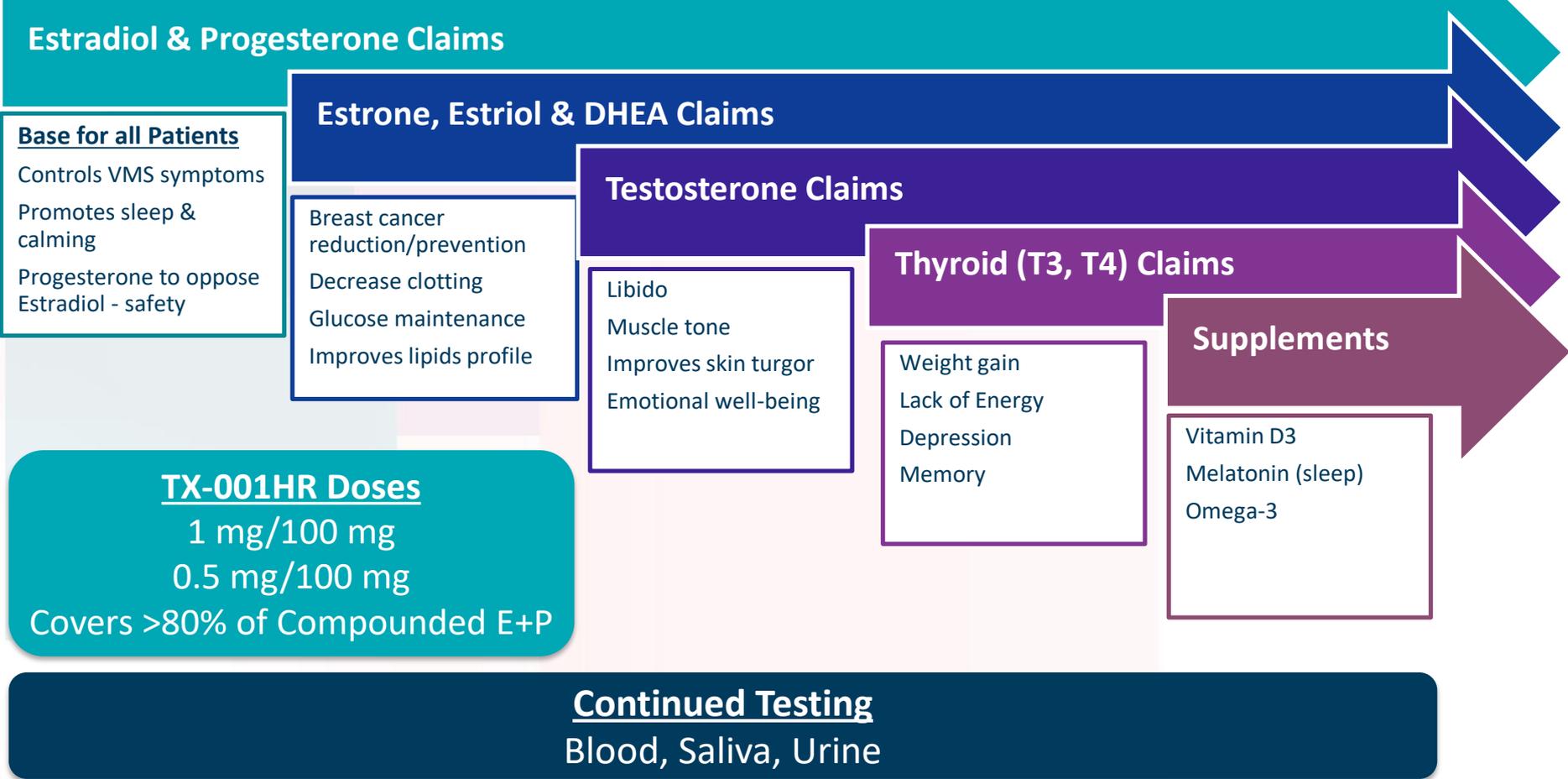


N = 3,000-3,500 Compounding Focused Pharmacies^{1,2,3}

(1) 2013 National Community Pharmacists Association Digest: Financial Benchmarks (Sponsored by Cardinal Health)
(2) NCPA Community Pharmacy Compounding Survey (November 2012)
(3) NPI Database: using taxonomy codes

Compounding Pharmacy Menopausal Treatment Paradigm

Customization is adding therapy...not tweaking dosages



BIO-IGNITE™

Compounding Pharmacy Partnership Strategy

BIO-IGNITE™ is an outreach program to quantify the number of compounded bio-identical estradiol and progesterone prescriptions currently dispensed by the 3,000-3,500 high-volume compounding pharmacies, and qualify their interests in distributing our hormone product candidates, if approved.

Phase 1:

Understand and identify the high volume pharmacies and prescribers that have developed a specialty focus around women's menopausal health

Phase 2:

Work with these specialists to transition patients from unapproved compounded therapies to an FDA-approved treatment

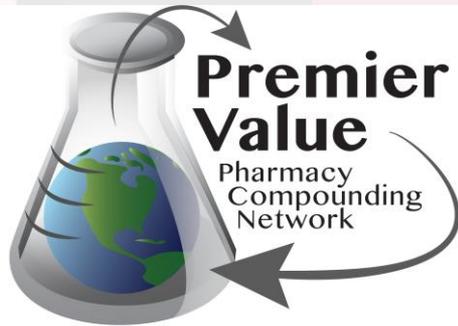
BIO-IGNITE™ Progress and Results

Partnerships with Large Pharmacy Network and Individual Pharmacies

Pharmacy Network and Individual Pharmacy Partners

of Pharmacies

Combination Bio-Identical E+P Scripts



>300 Pharmacies In Network

~1,500,000 prescriptions annually

TXMD Outreach to Individual Pharmacies

>400 Pharmacies with Prescription Data

>500,000 prescriptions annually

Adverse Reimbursement and Regulatory Environments Continue to Erode Independent Pharmacy Margins



November 2013: Congress enacts Drug Quality and Security Act (DQSA), which prohibits compounding of essential copies of an FDA-approved drug except in limited circumstances such as drug shortage¹



June 3, 2014: ESI launches a “Compound Management Solution,” creating a list of excluded ingredients that eliminated almost 95% of all compound claims²



July 2014: Optum initiates a comprehensive compound management program, including prior authorizations and step therapy for all compounded prescriptions³



July 2018: USP-800 implementation will set new identification requirements for receipt, storage, mixing, preparing, compounding, dispensing, and administration of hazardous drugs^{4,5}

- Considered “prohibitively expensive” requiring major pharmacy upgrades and renovations to be compliant
- **Large fixed capital expenditure requirements, with some totaling >\$150,000 per pharmacy to implement**

1) <http://www.fda.gov/Drugs/DrugSafety/DrugIntegrityandSupplyChainSecurity/DrugSupplyChainSecurityAct/ucm376829.htm>

2) <http://www.iacprx.org/general/custom.asp?page=CCIns161314>

3) <http://www.optum.com.br/content/optum/en/optumrx/pharmacy-insights/restoring-trust-compound-medications.html>

4) http://www.usp.org/sites/default/files/usp_pdf/EN/m7808.pdf

5) <https://www.ascp.com/sites/default/files/Joint%20USP%20letter%202015%20FINAL.pdf>

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Economic Incentives Provide Catalyst to Switch to TX-001HR

Independent Pharmacy Net Income Per Script with TX-001HR			
	Compounded E+P Post USP-800	TX-001HR Launch 2H18	
<u>Revenue</u>			
Patient Co-Pay	50.00	50.00	
Third-Party Reimbursement	-	200.00	
Total Net Revenue	\$ 50.00	\$ 250.00¹	
Costs of Good Sold	7.50	200.00 ²	
Gross Profit	\$ 42.50	\$ 50.00	
<i>Gross margin</i>	<i>85.0%</i>	<i>20.0%</i>	
<u>Operating Expenses</u>			
G&A	15.00	15.00	
S&M	7.50	5.00	
Additional Compounding Costs ³	15.00	-	
Cost of USP-800 Requirements ⁴	10.00	-	
Total Operating Expenses	\$ 47.50	\$ 20.00	
Pre-Tax Profit	\$ (5.00)	\$ 30.00	
<i>Operating margin</i>	<i>-10.0%</i>	<i>12.0%</i>	

1) Assume AWP-18% Third-Party Reimbursement

2) Assume \$250 WAC less 20% distribution discount

3) Includes additional labor, pharmacists, technicians, regulatory, and legal expenses

4) July 2018 Implementation; includes >\$150,000 capital expenditure as well as new identification requirements for receipt, storage, mixing, preparing, compounding, dispensing, and administration of hazardous drugs

PVPCN Distribution Agreement Rationale

Innovation

- Potential low-dose local estrogen therapy for VVA
- Potential first and only FDA-approved bio-identical combination of E+P
- Clinical validation of current treatment paradigm for menopausal symptoms

Regulatory Environment

- Drug Quality and Security Act
- Loss of Third-Party Reimbursement
- USP-800 – Hazardous Drugs

TXMD and PVPCN

Commercial Opportunity

- 1.5 million annual compounded E+P prescriptions directly substitutable to TX-001HR
- Improved pharmacy economics
- Maintain and grow patient and physician relationships

TherapeuticsMD®

For Her. For Life.

FDA-Approved Separate Bio-Identical E & P Substitutable Market Opportunity

- Healthcare providers not comfortable with compounding will often prescribe two separate FDA-approved bio-identical products to treat menopausal symptoms



Product Use by Age	AGES 41-50	AGES 51-60	AGES 61-70	AGES 71+	TRx Totals
<u>Progesterone*</u>	528,325	1,326,618	1,060,666	678,775	3,594,384 ¹
<u>Estradiol</u>	2,677,210	5,494,846	2,826,636	1,083,726	12,082,418 ¹

*Menopausal use of progesterone directly substitutable to TX-001HR

~3.5M Potential Prescriptions for TX-001HR (if approved)
Market Opportunity = \$700M-875M²

- This regimen carries **significant risk** of endometrial hyperplasia/cancer if the patient is non-compliant with regular progesterone use
 - Side effects of progesterone including nausea and somnolence can lead to a patient not taking the progesterone
 - Results in two separate co-pays for the patient

1) Symphony Health Solutions PHAST Data powered by IDV; 12 months as of December 31 2015

2) Assume WAC pricing between \$200-250

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FDA-Approved Combination Synthetic E+P Substitutable Market Opportunity

TX-001HR

FDA-Approved Combination Synthetic E+P Prescriptions by Age



AGES 31-40	AGES 41-50	AGES 51-60	AGES 61-70	AGES 71+	Unknown Ages	TRx Totals
52,575	372,968	1,712,852	759,634	151,821	68,672	3,118,522¹

**~3M Potential Prescriptions for TX-001HR (if approved)
Market Opportunity = \$600M-750M²**

1) Symphony Health Solutions PHAST Data powered by IDV; 12 months as of December 31 2015
Includes the following drugs: Activella®, FemHRT®, Angeliq®, Generic 17β + Progestins, Prempro®, Premphase®, Duavee®, Bristelle®
2) Assume WAC pricing between \$200-\$250

All trademarks are the property of their respective owners.

Expect Robust Insurance Coverage For TX-001HR, If Approved, In-Line with Product Class

4,315 Commercial Plans	% Unrestricted Access of Commercial Plans	Not Covered
Estrace® (Oral)	96%	1%
Prempro®	94%	5%
CombiPatch®	93%	4%
Climara Pro®	92%	4%
FemHRT®	87%	6%
Duavee®	86%	5%
Vivelle-Dot®	84%	5%
Activella®	83%	8%
Prometrium®	83%	6%

Data Source MMIT August 17, 2016 – 4,300 commercial plans
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TherapeuticsMD®

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TXMD: Financial Snapshot

**Listing
Exchange**

TXMD
LISTED
NYSE MKT

Debt

\$0M

**Shares
Outstanding**

203.9M

(as of April 27, 2017)

Cash

\$113.5M

(as of March 31, 2017)

TherapeuticsMD[®]

For Her. For Life.

Worldwide Patent Filings*

Strong IP Portfolio with 158 Patent Applications, including 82 international filings, and 17 issued U.S. patents



*Not all patent filings filed in all jurisdictions.

TherapeuticsMD®

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Appendix



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TX-004HR vs. Vagifem[®]

Phase 1 Single Dose PK Studies

Key Findings

- Tmax ~2 hours with TX-004HR and ~8 hours with Vagifem
- Systemic absorption of estradiol AUC (0-24 hours) is 2- to 3-fold lower with TX-004HR relative to Vagifem

